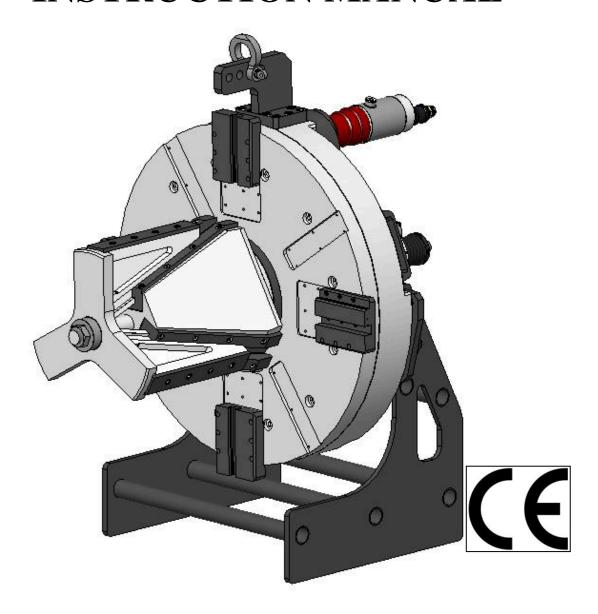


# **INSTRUCTION MANUAL**



# HYPERMAXI 20\_40

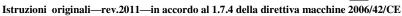




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## <u>PRESENTATION OF THE COMPANY AND</u> <u>INTRODUCTION TO THE INSTRUCTION MANUAL</u>

**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 fur-ther 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 modi-fication 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.** Industrial Tools S.p.a. guarantees the reliability of the machine and its con-formity 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 imput-able 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.

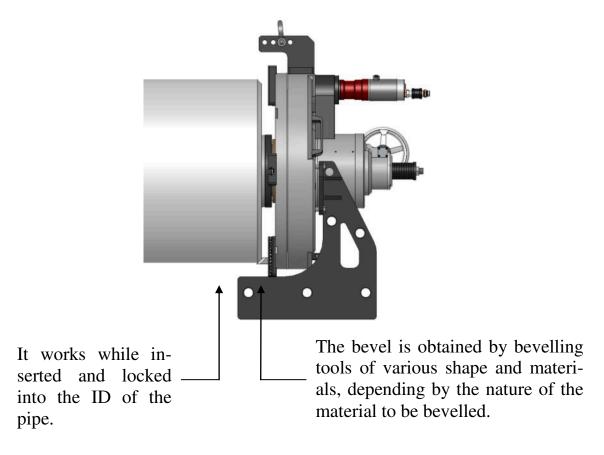
And its Maintenance Service, hereinafter called MSS, will remedy this inconvenient free of charge , both for handwork and for eventual replaced parts, except when the malfunction is di-rectly or indirectly imputable to misuse or alteration. In any case the machine must not be disas-sembled or altered 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 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. 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, atmos-pheric 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.

# **INTENDED USE OF THE MACHINE**

The machine shown in the drawing is intended to be used for prepping pipes for the welding. It works while inserted and locked into the ID of the pipe



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

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

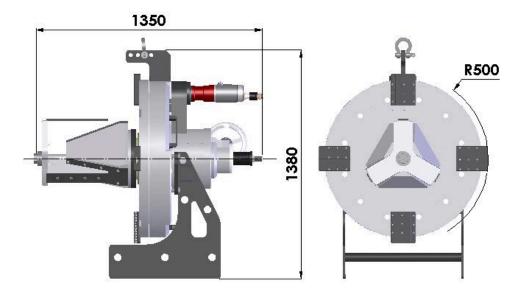
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### % G.B.C. HYPERMAXI 20\_40

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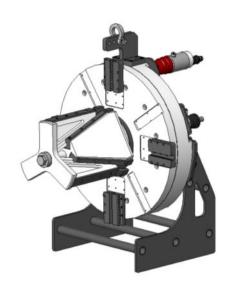
TECHNICAL DATA				
		PNEUMATIC	HYDRAULIC	
ID Locking Range	mm (inches)	465-997 (18.30-39.25)	465-997 (18.30-39.25)	
OD workable Range	mm (inches)	508-1016 (20-40)	508-1016 (20-40)	
Idle Speed	gg/min (Rpm)	6	14	
Stroke	Mm (inches)	100 (3.93)	100 (3.93)	
Pneumatic Motor Power	Hp (W)	4.21 (3100)	-	
Max Torque	Nm	2492 (6bar) 4658 (8bar)	6200	
Air Consumption	NI/min (cfm)	2800 (99)	-	
Air Pressure	Bar (psi)	6 ÷ 8 (87÷116)	-	
Air Hose Connection	se Connection Pollici (inches) 3/4" (3/4") -		-	
Hydraulic Motor Power	Hp (W)	-	12.92 (9500)	
Hydraulic Unit Max Pressure	Bar (psi)	-	140 (2030)	
Oil Flow	L/min (cfm)	-	64 (14.1)	
Max Acoustic Emission	Db	75	75	
Machine Weight	Kg	870	870	



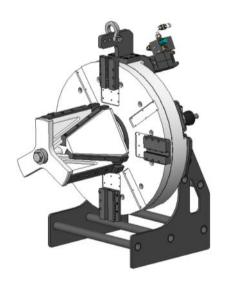


## **MACHINE CONFIGURATION MODELS**

### **Pneumatic**



## Hydraulic







### **MACHINE STANDARD EQUIPMENT**

The machine is supplied with:

- Serts of locking jaws from 465 to 997 mm
- 5 mm Allen Key
- 6 mm Allen Key
- 10 mm Long Allen Key
- Tx20 Screwdriver
- 38 mm Open Ended Wrench
- Wooden Box
- Instruction Manual and Drawings

#### Hypermaxi20\_40

#### **Service Tools**



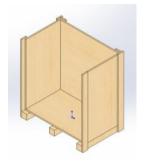






### Wooden Box

### Instruction Manual and Drawings





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### **OPTIONAL EQUIPMENT**

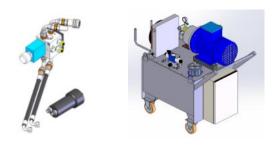
**EXTENSION KIT 40"** 



#### PNEUMATIC AUTOMATIC FEEDING DEVICE



#### HYDRAULIC AUTOMATIC FEEDING DEVICE



#### **COPIER TOOL HOLDER**





### **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	870
Shipping Dimensions	mm	1180 x 1650 x 1670
Shipping Weight	kg	990

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



### **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 EXEMPTION**

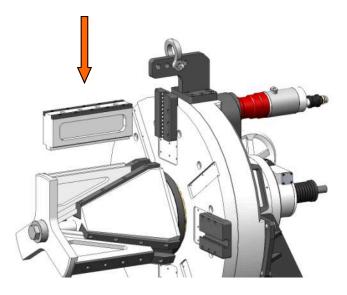
As provided for the paragraph 1.2.4.3. of the attachment 1 of the Machinery Directive, portable machines are exempt to have this feature.



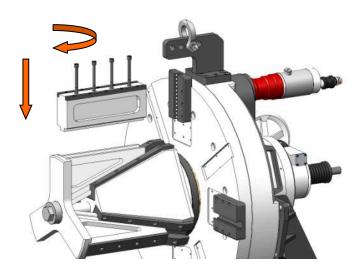


# **MACHINE SETUP FOR BEVELING**

Measure the pipe ID and select the correct locking jaws size before proceeding with the setup.



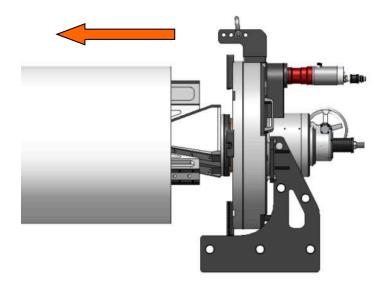
Install the selected locking jaws in their seats.



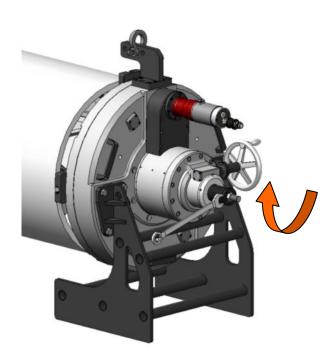
Use the allen key part of the service tool kit to lock the locking jaws in position with the 4 screws.





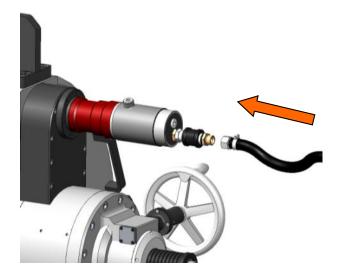


Insert the machine in the pipe ID.

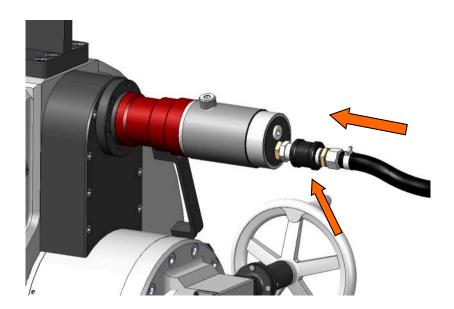


Use the wrench to rotate the central nut clockwise to allow the locking jaws to expand, locking the machine inside the pipe.





Connect the compressed air hose to the machine pneumatic motor.



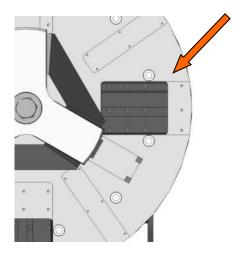
The machine can be started by rotating the lever as shown in the above picture.

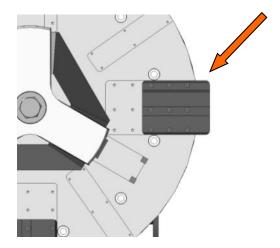


WARNING: THE MACHINE WILL START RUNNING THE VERY MO-MENT THE LEVER IS TURNED





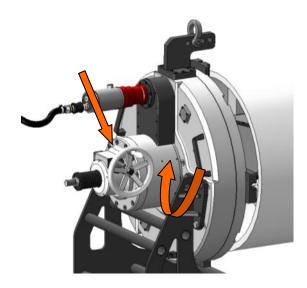




Pipes from 20" to 28"

Pipes from 28" to 36"

Position the tool holder plates according to the above drawings.



The machine can be moved closer to the pipe or away from the pipe by turning the hand wheel.

N.B. To execute the bevel you will want to move the machine towards the pipe by turning the hand wheel with a continuous and constant paced motion.

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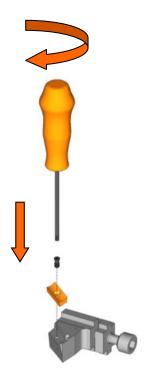
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### **WEDGE LOCKING TOOLS SETUP**

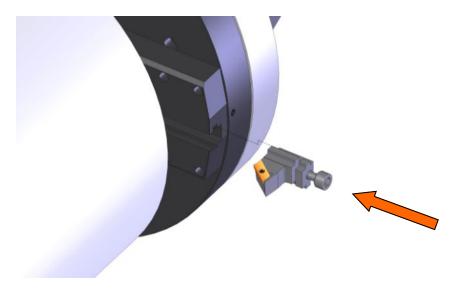


Select the most appropriate wedge locking kit in relation to the specific job required.

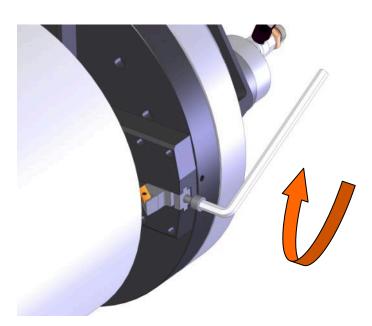


Fix the tip to the tool holder by using the appropriate screwdriver.





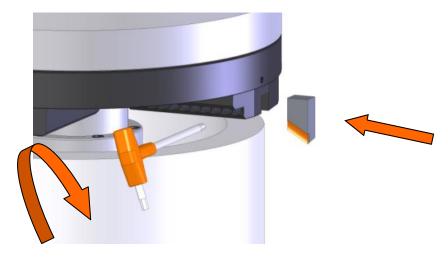
Insert the kit you have just assembled into the T-shaped slot on the slide.



Position the kit making sure that the blade of the tip is in correspondence with the pipe wall thickness and lock it in position by fastening the screw with the appropriate Allen key.

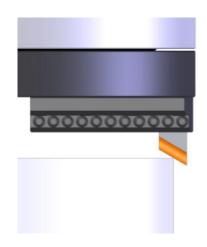


### STANDARD TOOLS SETUP

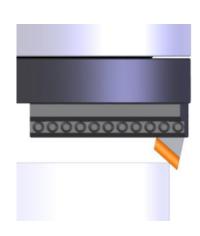


Select the most appropriate wedge locking kit in relation to the specific job required, fasten the grub screws present for the whole length of the tool to lock it in position.

N.B. THE TOOL MUST BE LOCKED BY AT LEAST 2 GRUB SCREWS.







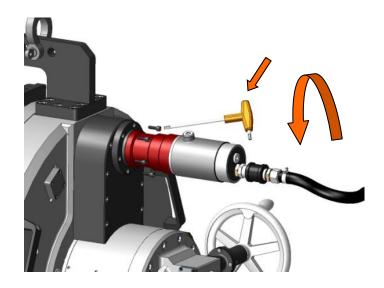
WRONG position.

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

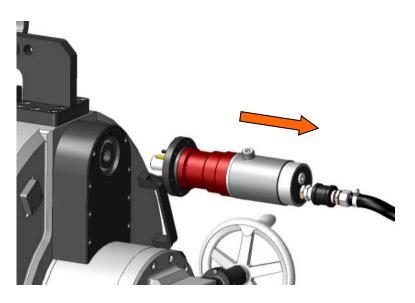
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# DRIVE KIT REPLACEMENT

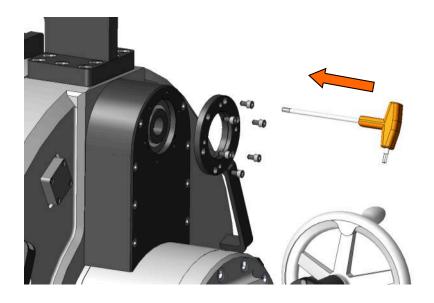


Remove the 6 screws and washers as shown in the above picture.

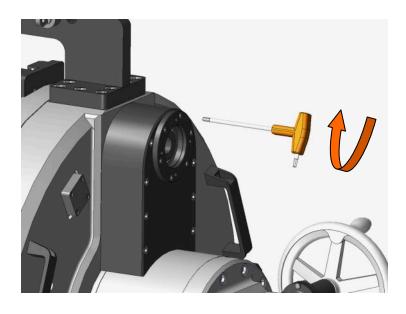


Pull out the drive kit.



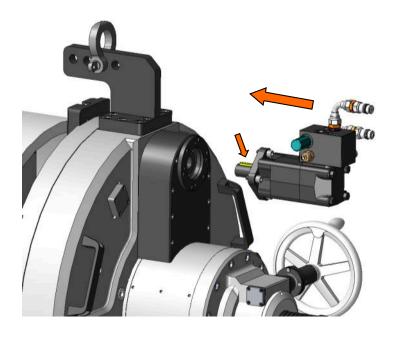


Install the flange supplied with the hydraulic drive kit and install it in the motor seat.

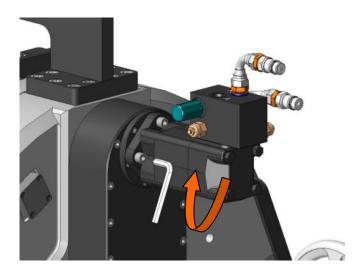


Fix the flange with the four screws supplied with the hydraulic drive kit.





Insert the hydraulic motor making sure that the key located on its pinion matches the slot present on the ID of the toothed pinion installed in the machine.



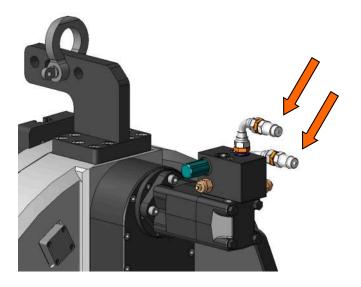
Secure in place the hydraulic motor by fastening the 4 screws supplied with the hydraulic drive kit.

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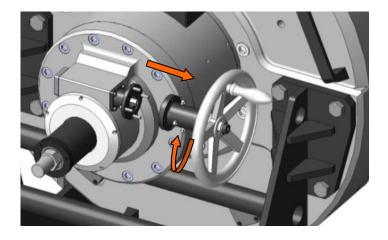


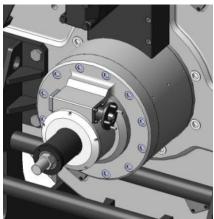
Connect the motor to the power unit with the hoses.

N.B.: Read the manual supplied with the hydraulic unit before use.

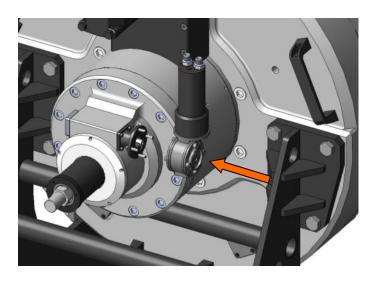


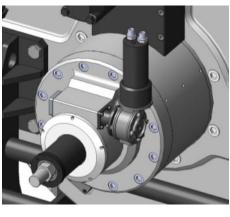
# INSTALLATION OF THE HYDRAULIC FEEDING DEVICE





Remove the nuts that hold in place the feeding hand wheel.





In the very same place you will want to install the transmission of the hydraulic feeding device and secure it in place with the 4 nuts removed earlier.

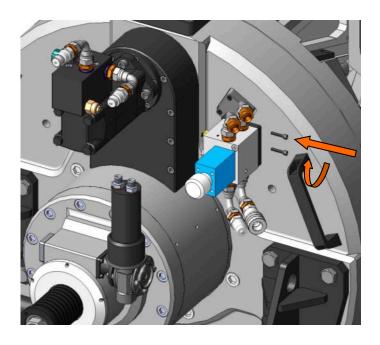
### G.B.C. Industrial Tools S.p.A.

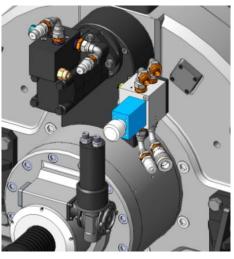
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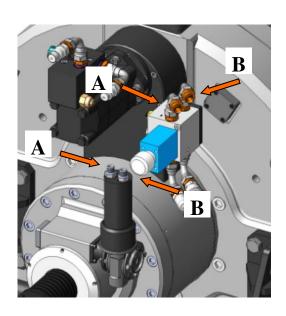
Istruzioni originali—rev.2011—in accordo al 1.7.4 della direttiva macchine 2006/42/CE







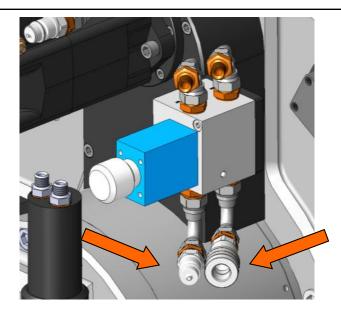
Fix the auxiliary hydraulic motor to the machine casing as shown in the above pictures.



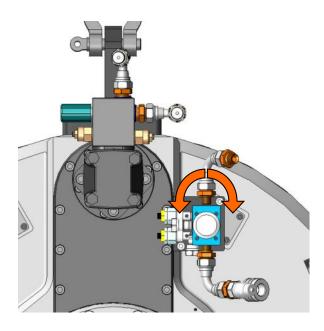


Connect the transmission to the motor with the flexible tubes supplied with the assembly.





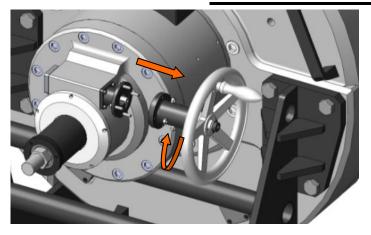
Plug the flexible tubes of the main hydraulic unit to the auxiliary hydraulic motor.



Rotate the feeding knob clockwise or counterclockwise to increase or decrease the feeding speed of the tool during the working phase.

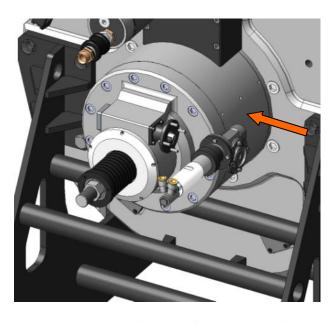


## **INSTALLATION OF THE PNEUMATIC FEE-DING DEVICE**





Remove the nuts that hold in place the feeding hand wheel

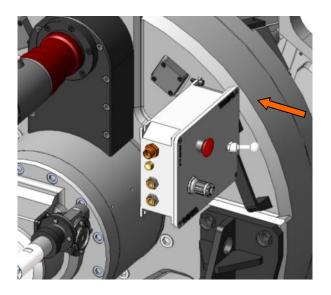




In the very same place you will want to install the transmission of the hydraulic feeding device and secure it in place with the 4 nuts removed earlier.

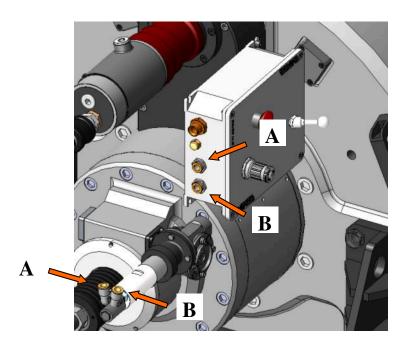








Fix the control box to the machine casing as shown in the pictures above.

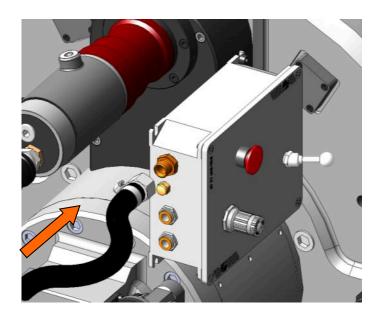


Connect the air tubes as shown in the above drawing.

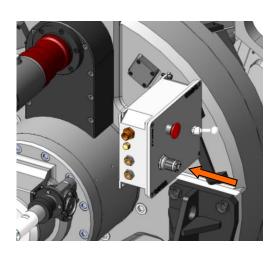
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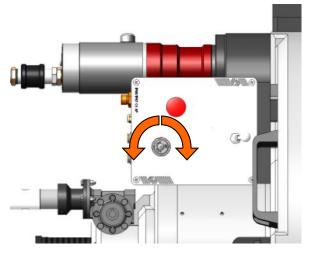
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Connect the control box to the air hose of the compressed air main system.



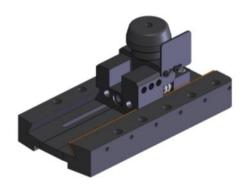


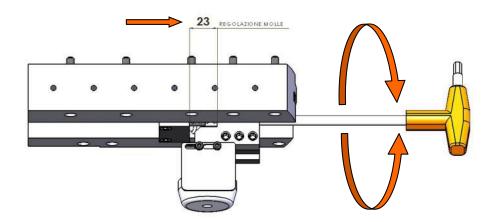
Rotate the speed knob clockwise or counterclockwise to increase or decrease the feeding speed of the tool during the working phase.

#### **COPIER TOOL HOLDERS**

The copier tool holder is available as optional equipment and can be installed directly on the chuck of the machine replacing the standard tool holder.

This tool holder copies the pipe ID and delivers a consistent bevel and land compensating the pipe ovality.



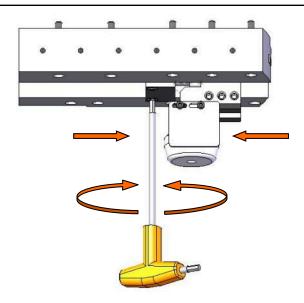


Before installing the tool holder on the chuck make sure to set the spring at the height of 23mm as shown in the above picture by screwing or unscrewing the central screw of the assembly with the Allen Key supplied as shown in the above picture.

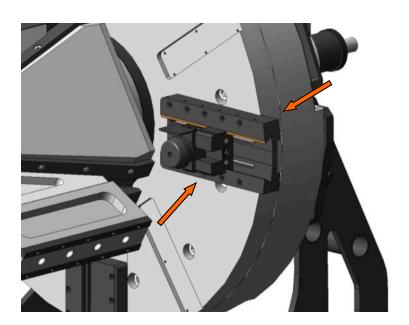
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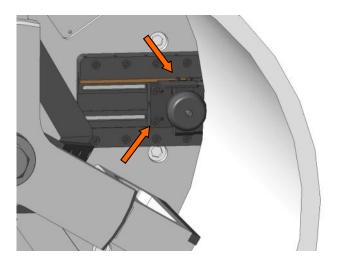


When the spring is set at the required height you will want to losen the set screws "Copying Assembly" as shown in the above picture.

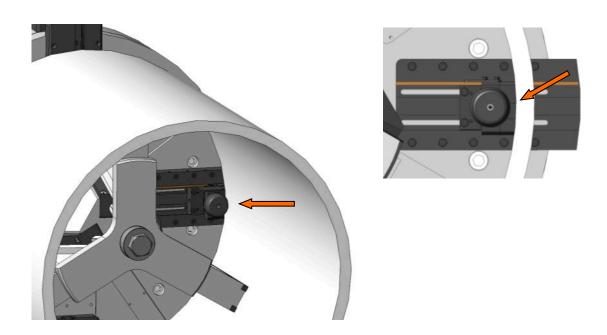


Install the tool holder in its seat as shown in the above picture and make sure you are matching the fixing holes with those of the chuck, then secure it in position with the proper screws.





Loosen the 2 screws of the copying tool holder assembly as shown above



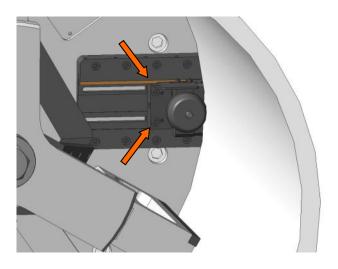
Place the machine locking jaws in the pipe ID, lock the machine in working position and push the copying assembly towards the pipe ID until the roller touches the wall as shown in the above picture.

N.B. Repeat the same operation with the shavings sweeper.

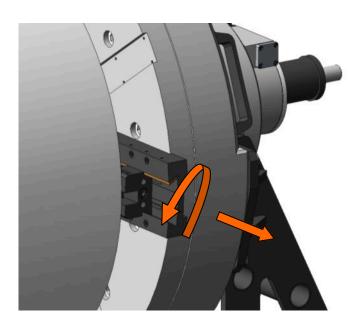
### G.B.C. Industrial Tools S.p.A.

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





Fasten the screws of the copying assembly.



Loosen the central screw of the copying assembly to release the copying spring.

#### <u>ORDINARY MAINTENANCE</u>

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 re-quire about the above mentioned procedures and for any general clarification you may need.

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

### <u>PERIODICAL CHECKS</u>

IT IS IMPORTANT TO MAINTAIN WELL LUBRICATED THE MACHINE MOTION MECHANISMS AND TO GREASE THE THRUST BEARING REGULARLY DEPENDING ON THE USE OF THE MACHINE

The greases normally employed are lithium based (Ep) and correspond to the standards:

DIN 51825 K2K - 20 ISO L-X-BCHA2

It is possible to use equivalent greases. The working temperatures are included between  $-20^{\circ}$  C and  $+120^{\circ}$  C.

Special greases are necessary for the use of the machine at lower temperatures.

In the below chart are listed some of the standard greases employed:

GRASES			
BRAND	ID MARK		
ESSO	BEACON EP2		
MOBIL	MOBILUX EP2		
AGIP	GRMU EP2		
SHELL	CALITHIA EP2		

#### 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 bevelling 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.