% G.B.C.®



CE

HYPERCUTTER 60"-80"





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The Certificate of Conformity is attached.



௸ G.B.C. HYPERCUTTER 60"/80"

Original Instructions — Rev.00 2021—In compliance with the Machine Directive 1.7.4 2006/42/CE



<u>PRELIMINARY INFORMATION</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 preparations, plate beveling and back gouging pro-

The Headquarters are in Cazzago San Martino (BS) - Italy, where the General Management, the Sales Department, the Shipping Department and the Manufacturing Plant operate under the very same roof.

QUALITY STANDARD—All our machines are assembled according to the highest quality standard. In 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 **Instruction Manual** is supplied in one original with the machine you have purchased. You may apply for further copies at any time using the contact number or email address stated below. G.B.C. Industrial Tools S.p.A owns the copyright of this document and any partial or complete copy or distribution to natural persons or to corporate bodies is strictly forbidden unless our prior approval to do so has been obtained.

Any operation performed on the machines that is not described in this manual will automatically void the warranty.

G.B.C. Industrial Tools S.p.A. recommends to contact the Sales Department in Cazzago San Martino – Italy for any clarification needed.

Always make reference to the information written on the machine identification label.

Contact details:

Tel. +39 - 030 - 7451154 Email: sales@gbcspa.com



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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 void the warranty.

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, <u>use of non original G.B.C. parts and tools</u> 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.

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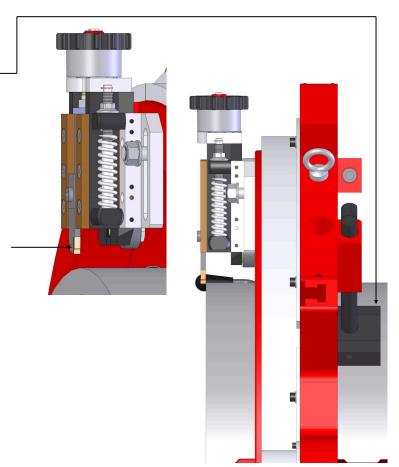


INTENDED USE OF THE HYPERCUTTER

The Hypercutter is designed for cutting and beveling pipes with OD from 1524, mm up to 2032 mm and wall thickness up to 100 mm made of any kind of steel.

The Hypercutter must be placed on the outer diameter of the pipe and secured in place by its locking feet.

The cutting and beveling operations are obtained through tools with different shape and material, according to the specific preparation desired and material that has to be worked.



THE HYPERCUTTER MUST BE USED ONLY BY SPECIALIZED OPERATORS WHO HAVE BEEN DULY TRAINED ON THE UNIT.

UPON SPECIFIC TRAINING, THERE IS NO SPECIFIC WARNING AGAINST THE USE OF THE HYPERCUTTER.

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SPECIAL RECOMMENDATIONS

- The Hypercutter must be switched off and disconnected from the power source before any service and inspection. These operations must be executed only by qualified and authorized personnel.
- Always wear protective gloves while handling the cutting and beveling tools as they have very sharp edges.
- Always maintain a 2 meters safety distance from the machine while it is running.
- Do not feed the tools manually while the machine is in motion.
- The operator must be granted a 1.5mt clearance all around him in the workplace to grant enough freedom of movement.
- Provide the tools a constant lubrication with specific cutting oil or lubricating fluid whenever possible.
- The Hypercutter must be operated only when it has been duly placed and locked on the pipe OD. Any different use of the machine is considered a misuse.





PIPE CUTTER HYPERCUTTER 60"-80"





HYPERCUTTER 60°7/80°7
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TECHNICAL SPECIFICATIONS

HYPERCUTTER 60-80		
		HYDRAULIC
Locking Range	mm	1524 - 2032
Idle Speed	RPM	7
Crown Max Torque	Nm	28000
Axial Stroke	mm	110
Oil Fitting	ln.	3/4"
Tension	Volt	480
Frequency	Hz	60
Hydraulic Motor Power	Hp (kW)	20,4 (15)
GBC HPU Max Pressure	Bar	160 + 30
Oil Flow Rate	l/min	66 + 6
Max Acoustic Emissions	Db	75
Hypercutter Weight	Kg	2125

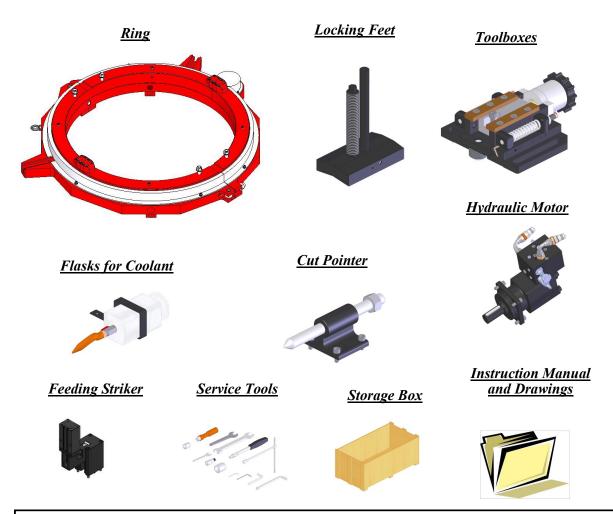
The acoustic emissions have been measured with a phonometer and calibrator LAT.





INCLUDED COMPONENTS

- 2 Feeding Strikers
- 2 Toolboxes
- 2 Flasks for Coolant
- 1 Cut Pointer
- 8 Locking Feet with Scale
- Hydraulic Motor
- Service Tools
- Storage Box
- Instruction Manual and Drawings



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SAFETY PRESCRIPTIONS

G.B.C. Industrial Tools S.pA. 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 in case of misuse of the machines and their use in contrast with the regulations listed hereinafter and with the use and maintenance instructions hereto.

- Carefully read ALL the instructions herewith attached before starting any operation.
- Ensure that the operator and the foreman operating the machine are fully aware of all the regulations and instructions and that they are qualified to operate the unit.
- Strictly attain to the indications given by the international symbols applied on the machines and/or its packaging.
- Do not perform any maintenance operation if the machine is connected to the power supply.
- Before every use ensure the power supply connections are in conformity with the specs given by this manual.

The authorized operator must not in any circumstance disregard the basic safety rules such as:

- Using the required PPE (gloves, goggles and steel toe shoes).
- Operate in a working area properly illuminated.
- Do not replace the control system and or use non GBC genuine spare parts.
- Do not project violent water jets on the machine.
- Maintain an adequate distance from the machine during its functioning.

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 the PPE, will relegate the residual risks only to the end user's system malfunctions and not by inborn defects of the Hypercutter.

- Gloves and goggles must be used during every operation.
- Any adjustment or inspection of the machine must be performed only when the unit 2. disconnected from the power source.
- 3. The instruction manual and the drawings will provide the necessary explanation for every operation.





SHIPPING DETAILS

Weight of the Hypercutter	kg	2689
Dimension of the Shipping Boxes (2 pcs)	mm	3400 x 1820 x 860 (Each box)
Shipping Weight	kg	3473

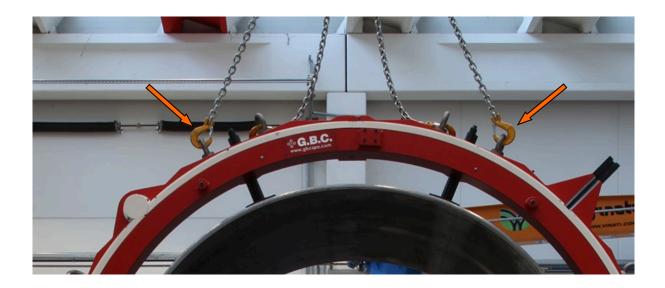
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STABILITY OF THE MACHINE

The machine must be lifted **EXCLUSIVELY BY THE EYEBOLTS** as shown in the picture below.



Swarfs must be removed from the working area using only a suitable tools, and never with bare hands. Hooks are not suitable tools.

WORKPLACE

The setting of the machine must be executed through the remote control platform of the HPU supplied with the Hypercutter.

USE OF THE EMERGENCY BUTTON

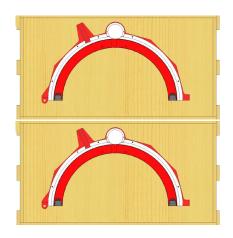
The EMERGENCY STOP BUTTON is located on the REMOTE CON-TROL PLATFORM of the HPU and can be easily discernible from all the other control buttons.

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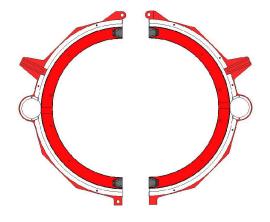




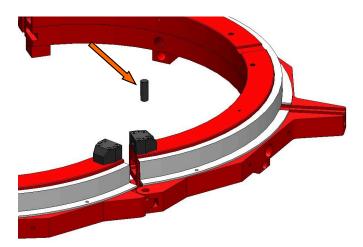
MACHINE SETUP



The HYPERCUTTER Is shipped in two halves, each one of them in its wooden box



To join the two halves, lay them on a plain surface exactly as shown in the pic-



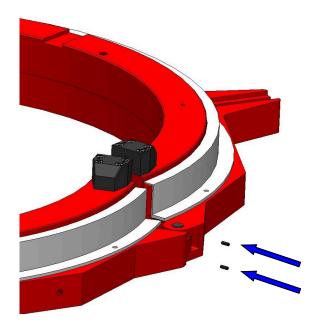
Align two halves in order to couple the joints that form a hinge as shown in the picture and insert the pin all the way down in the hole.

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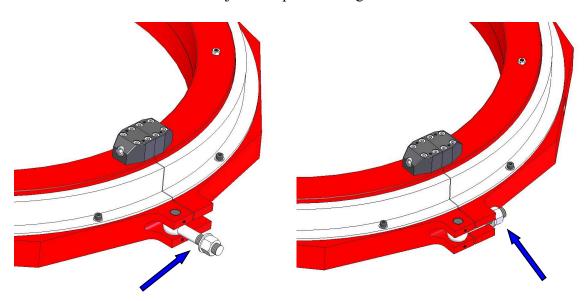


HYPERCUTTER 60°7/80°7
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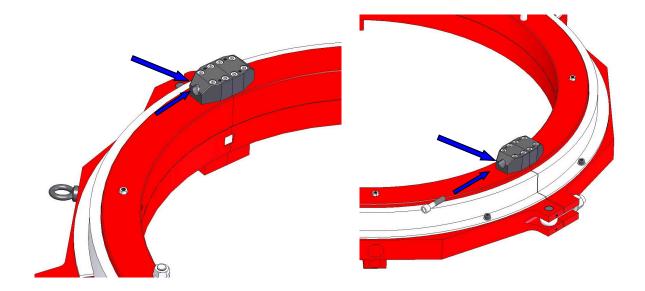
Secure the pin in place by screwing the two socket set screws in their seats, located just in top of the hinge.

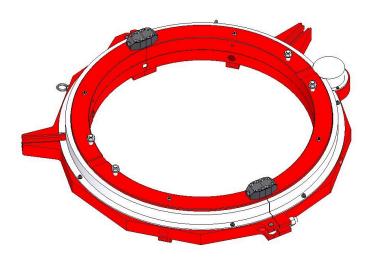


Now move closer to each other also the other ends of the ring so that you can close the latch and secure it in place by fastening the security nut.







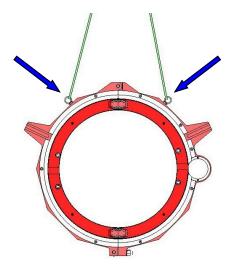


Insert the two locking screws in the coupling hubs in correspondence of the split points and fasten them using the Allen key supplied with the machine.

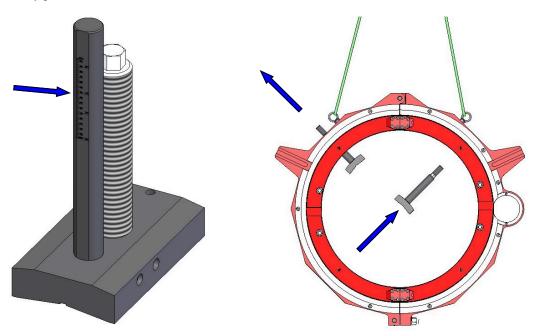




LOCKING FEET ASSEMBLY PROCEDURE



Now that the ring is assembled, hook a sling to each eyebolt and hoist the machine to continue the assembly procedure

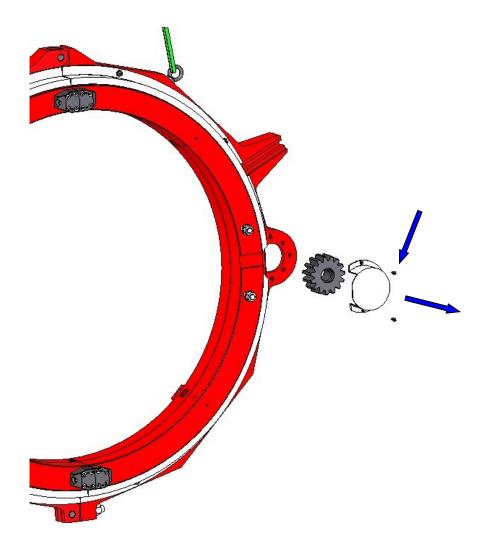


Install the locking feet keeping the scale facing the back of the ring and the threaded pin facing the front.





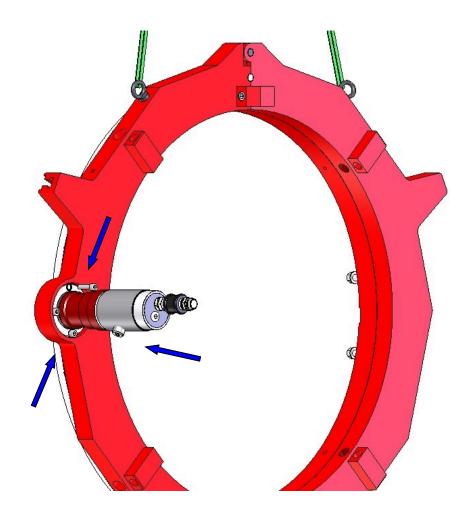
DRIVE ASSEMBLY MOUNTING PROCEDURE



Remove the round protection by removing the two locking screws as shown above.





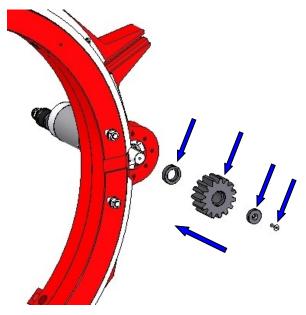


Install the drive motor (pneumatic, electric or hydraulic) on the back side of the ring, and secure it in place with 4 screws as shown in the above picture.

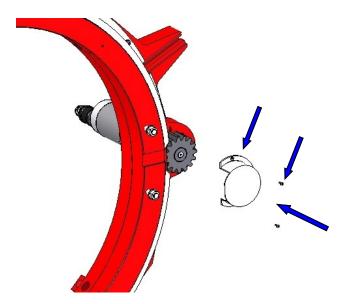


HYPERCUTTER 60°2/80°2
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Assemble these parts in sequence on the motor spindle : the spacer, the pinion, the washer and the locking screw.



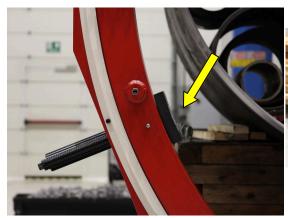
Put back the protection and secure it with the two screws previously removed.





MACHINE POSITIONING

The lower feet must be withdrawn in their seat to allow an easy positioning of the machine on the pipe, while the upper feet protrusion must be adjusted to match the nominal diameter of the pipe to be worked. The scale engraved on the feet stems will allow a very accurate positioning.





The picture below shows the procedure described above.



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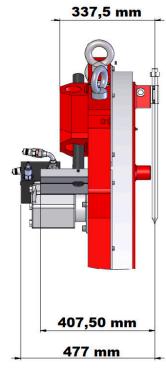




Slide the machine back along the pipe until the desired cut point is reached. N.B.: The operator should always consider the placement of each specific component from the actual cut point, making sure that there is enough clearance to position the Hypercutter in the required spot:

> Cut point / Machine Frame - 337,5 mm Cut point / Locking Feet Edge - 407,5 mm Cut point / Hyd. Drive Assy - 477mm





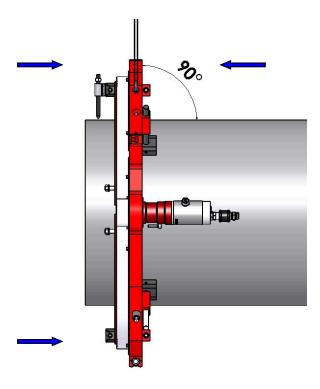
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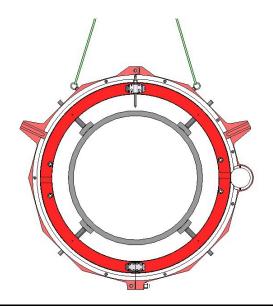
HYPERCUTTER 60°2/80°2
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The Hypercutter must be set perfectly perpendicular to the pipe. The perpendicularity can be checked by simply placing a 90° square in proximity of each locking foot.



Now all the other locking feet can be moved inwards until they touch the pipe OD.



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TOOLBOXES ASSEMBLY PROCEDURE

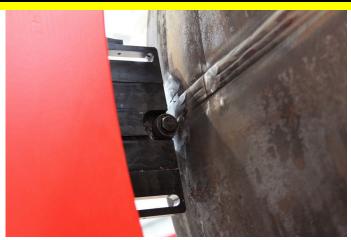
Hoist the toolbox by the eye bolt as shown below.



Install the toolbox on the guiding pins and slide it towards the pipe until the tracking roller touches the pipe OD.



Warning: Eventual welding seams, as the one visible in the picture below, must be ground to flatten the pipe surface as they interfere with the tracking roller and cause defects on the bevel or even damage the toolbox.



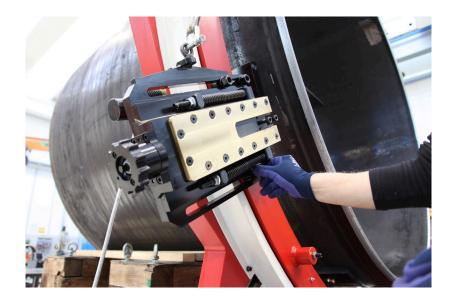
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Secure the toolbox in place with the washers and nuts.

N.B.: Until the nuts are still loose, the toolbox will tend to slide downwards because of the gravity, therefore the operator will need to be extra careful.



The nuts must be tight in order to keep the toolbox in position during the entire working session.



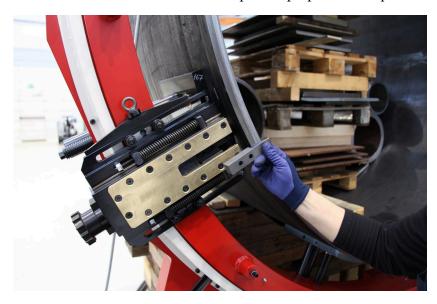




Remove the sling from the toolbox eye bolt.



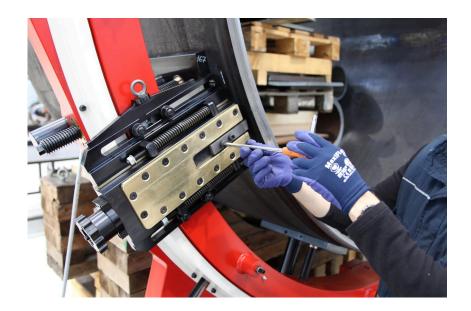
Install the tool selected for the specific preparation required.



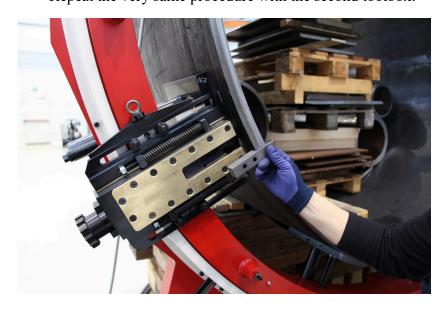




Secure the tool with the two locking screws.



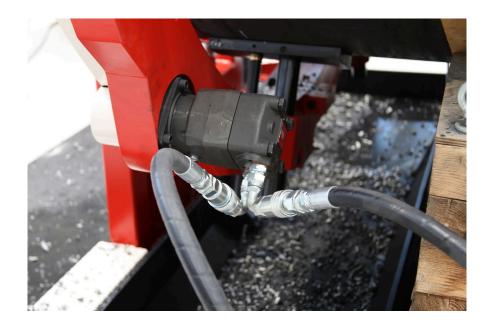
Repeat the very same procedure with the second toolbox.







Connect the hydraulic motor to the hydraulic power pack through the hoses.



Connect the hydraulic power pack to the power grid and turn the main switch to "ON".





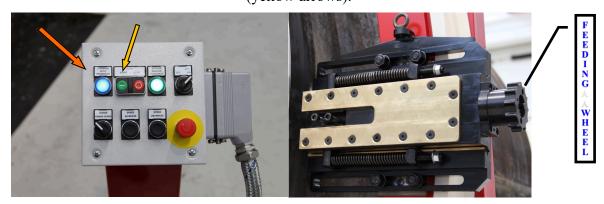


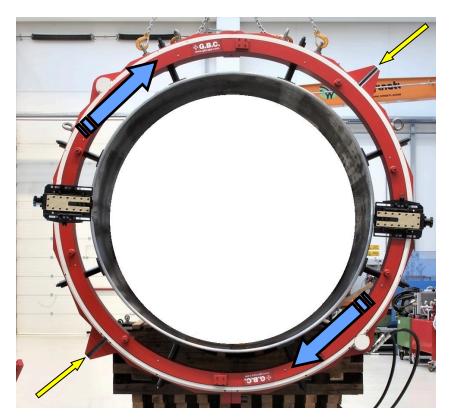




INSTALLATION OF THE STRIKER ASSEMBI

Start the **Hydraulic Power Pack** by pressing the green button on the platform and press the light blue backlit button to start the Hypercutter. Let the crown rotate until the **Feeding Wheel** of a toolbox matches with the seat of the **Striker Assembly** (yellow arrows).





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Install the **Striker Assembly** and loose the locking nut to release the wedge hub.



The Wedge Hub can now be moved to match the height of the Feeding Wheel in order to intercept its teeth once the automatic feeding is engaged. Once the correct position is set, tight the locking nut.



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Connect the hoses coming from the **Hydraulic Power Pack** to the Striker Assembly.



Make sure that the Quick Connect fittings are duly coupled.







PLACEMENT OF THE PIPE SUPPORT (OPTIONAL)



Move the **Pipe Support** close to the edge of the pipe and centre the crosspiece with the jack.







Expand the threaded arms until the brackets reach the pipe ID.



The brackets must touch both the pipe edge and the pipe ID.



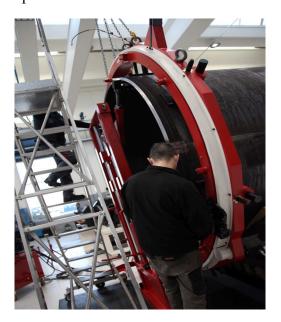




Screw the hex bolts on the bracket until they all touch the pipe ID.



Repeat the operation with the hex screws of all the brackets.

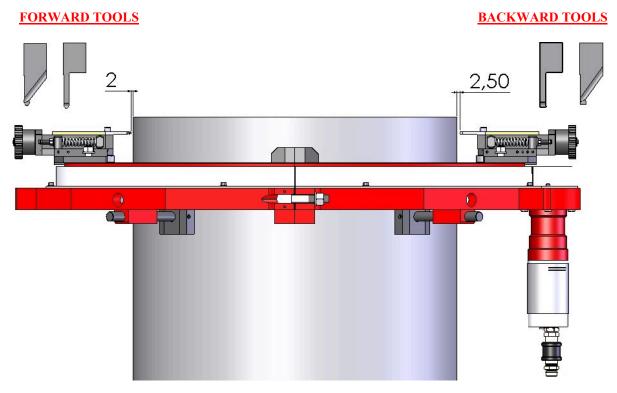




Machine Directive 1.7.4 2006/42/CE



SETUP OF THE CUTTING TOOLS



NB: The cutting process must be executed, with no exception, with 2 different cutting tools that are distinguishable by the shape of the cutting tip.

The FORWARD TOOLS have a pointed tip while the BACKWARD TOOLS have a squared tip. This expedient grants the equal distribution of the workload on each tool and toolbox and keeps the machine balanced as much as possible.



THE CUTTING PROCESS MUST NEVER BE EXECUTED WITH TOOLS OF THE SAME SHAPE.

Manually feed the toolbox with the FOR-WARD tool and until it reaches a distance of about 2mm from the pipe OD.

Perform the same operation with the other toolbox but in this case the distance from the pipe OD must be of about 2,50mm

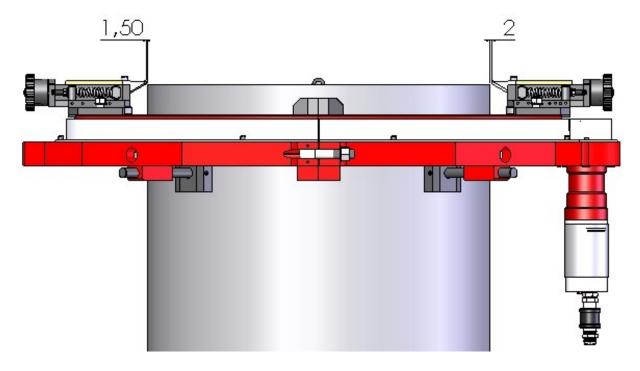
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SETUP OF THE BEVELING TOOLS



N.B.: The beveling tools (for the same bevel angle) are identical and there is no distinctions as it happens in the case of the cutting tools as covered in the previous page, nevertheless the toolboxes will have to be manually operated and brought to a different position as described below.

Manually feed one of the toolboxes until the tool reaches a distance of about 1,5 mm from the pipe OD.

Perform the same operation with the other toolbox but in this case the distance from the pipe OD must be of about 2mm.

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USE OF THE COOLING SYSTEM (OPTIONAL)

The Hypercutter is supplied with an optional Forced Circulation Cooling System formed by a Collecting Tray with pump and by a Flexible Return Tube with Nozzle (Yellow) that can be fixed anywhere around the machine frame.



Fill the tank with cooling liquid such as emulsion of cutting oil and water, or regular coolant for CNC machines and start up the system by turning the switch indicated by the arrow.



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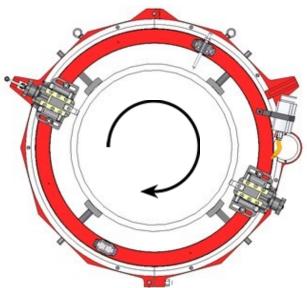
USE INSTRUCTIONS

Press the light blue backlit button on the platform to start the machine and set it to low speed by pressing the "Speed Decrease" button. In this initial phase, the operator must ensure that none of the cutting tools touch the pipe OD during the rotation, before providing any feeding to the toolboxes.

Especially in case large diameter pipes, the out of roundness condition may be such that one or both tools may start digging into the pipe and this has to be prevented. If this happens, the toolboxes will have to be moved back until the tools are no longer touch-

ing the OD in any position around the pipe.





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Engage the hydraulic striker by pressing the green backlit button "Striker Engage/ Disengage".

N.B: The Striker can be disengaged and re-engaged at any time during the operations in case of necessity (to break a swarf that has grown too long, or to change a tool that has become dull, etc.) but during the cutting operation it is very important that the operator does that maintaining the FORWARD/BACKWARD tool sequence.



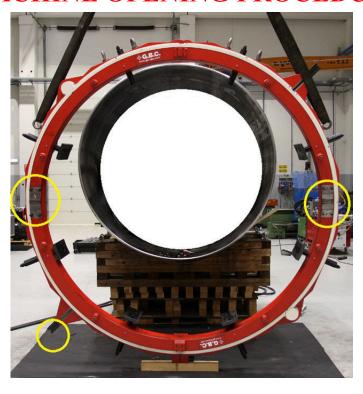


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MACHINE OPENING PROCEDURE



Remove every attachment from the machine (Toolboxes, Striker, Cooling Tube) and move the ring until the split points match with the split points of the frame (In correspondence with the hinge on the upper part and with the latch on the lower part).











WARNING: Before proceeding any further, the crown must be locked by fastening the Safety Set Screws located on the perimeter of the crown itself.

This expedient prevents the two halves of the crown slide out of the frame during the

opening procedure.

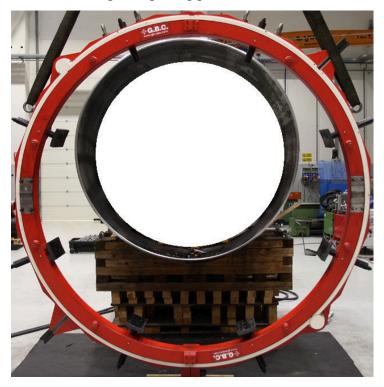








Lift the machine by the eye bolts with slings suitable to sustain the weight of the unit and the machine will open. The Hypercutter can now be moved onto the pipeline and placed in the specific point desired. Once positioned, the machine can be closed by following the opening procedure in reverse.





WARNING: As soon as the Hypercutter halves have been joined back again, remember to release the Safety Set Screws to free the crown.

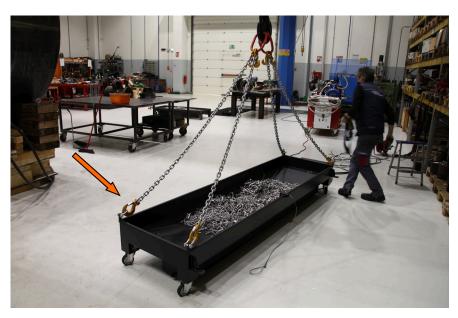
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EMPTYING THE COLLECTING TRAY (OPTIONAL)

Lift the Collecting Tray by the eye bolts.









Once the tray is in the desired position, pull the release cable.



The tray floor will open allowing the swarf to fall by gravity.







INSTALLATION OF THE ATTACHMENT FOR ID BEVEL (OPTIONAL)

Install the toolbox specific for the ID bevel attachment. Follow the same mounting procedure for the toolboxes covered in the previous paragraphs.



Move the toolbox towards the pipe OD until the tracking roller touches the pipe.



Warning: Eventual welding seams, as the one visible in the picture below, must be ground to flatten the pipe surface as they interfere with the tracking roller and can cause defects on the bevel or even damage the toolbox.



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Tighten the locking nuts.



Mount the Attachment for ID bevel on the Toolbox.







Mount the tool for ID bevel in the slot and secure it in position with the socket screws.



Check the correct mounting position.







INSTALLATION OF THE AT **OD TURNING (OPTIONAL)**

Mount the attachment on the Toolbox.



Move the toolbox towards the pipe OD until the tracking roller touches the pipe.



Warning: Eventual welding seams, as the one visible in the picture below, must be ground to flatten the pipe surface as they interfere with the tracking roller and can cause defects on the bevel or even damage the toolbox.







Tighten the nuts to secure the position of the attachment.



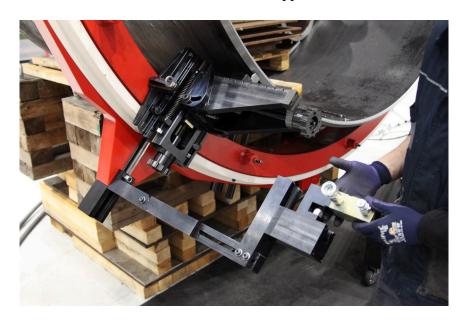
Install the tool selected for the preparation.



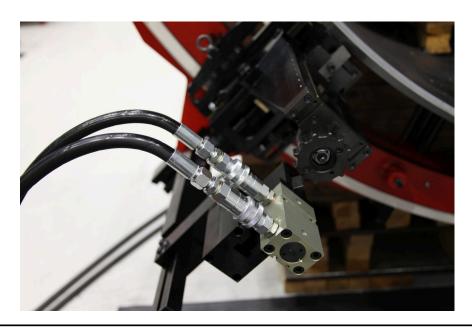




Mount the Striker Support.



Connect the hoses to the Striker Hub.





HYPERCUTTER 60"/80"

Original Instructions — Rev.00 2021—In compliance with the Machine Directive 1.7.4 2006/42/CE



ORDINARY MAINTENANCE

FOR OBTAINING A GOOD PERFORMANCE AND AN EXTENDED LIFESPAN, THE UNIT HAS TO BE INSPECTED AND SERVICED BY GBC OR BY A GBC SPECIALIZED TECHNICIAN OR AUTHORIZED DISTRIBUTOR EVERY 3 MONTHS

PERIODICAL CHECKS

CHECK THE GENERAL CONDITIONS OF THE MACHINE.

IN CASE OF PNEUMATIC UNITS

THE USE OF THE FILTER LUBRICATOR IS MANDATORY. ENSURE THE FILTER LUBRICATOR IS ALWAYS WORKING AND PROPERLY SET.

THE FILTER LUBRICATOR HAS TO BE PLACED AS CLOSE AS POSSIBLE TO THE MOTOR AND HAS TO BE USED WITH GBC LUBRICATING OIL ONLY.

EVERY 20-30 WORKING HOURS ENSURE THAT THE RELIEF VALVE IS WORKING AND DOES NOT LEAK AIR.

IN CASE OF HYDRAULIC UNITS

ENSURE THAT THE HYDRAULIC POWER PACK IS CONNECTED TO A POWER SOURCE DE-LIVERING TENSION AND FREQUENCY COMPATIBLE WITH THOSE OF THE MOTOR OF THE UNIT

ENSURE THAT THE OIL LEVEL IN THE TANK STAYS BETWEEN THE MAXIMUM LEVEL AND THE MINIMUM LEVEL INDICATORS.

ENSURE THAT THE OIL TEMPERATURE DOES NOT EXCEED 45°

USE ONLY OILS SUGGESTETED BY GBC

GENERAL CHECKS

ENSURE THAT THE SEATS OF THE TOOLS ON THE TOOL HOLDERS ARE CLEAN AND THAT THE TOOLS USED ARE ALWAY SHARP ENOUGH. DULL TOOLS WILL CAUSE EXCESSIVE OWRKLOAD AND IN A LONG TERM SCENARIO MAY CAUSE DAMAGE TO THE UNIT .

G.B.C. IS AT YOUR DISPOSAL TO PERFORM THE ABOVE STATED CHECKS AND FOR ANY FORM OF ASSISTANCE YOU MAY NEED.

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





TROUBLESHOOTING

THE MACHINE DOES NOT RUN. Ensure that it is connected to the power supply and that the power supply is suitable for the motor.

THE MACHINE DOES NOT CUT OR BEVEL. Check the conditions of the tools and make sure that the tools are suitable for working the material the pipe is made of. In case of doubt rely to your GBC contact person.

The acoustic emissions are within the limit prescribed by the Machine Directive in force. The tests carried out on every single machine and are recorded and kept by the Manufacturing Department.

The instruction manual for the Hydraulic Power Pack is supplied along with the present CE Instruction Manual.

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