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ATechMachinery.com



CRATER – 06 A700/760

**AUTOMATIC UPCUT MITER SAW
USER'S MANUAL**

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1. GENERAL INFORMATION

1.1. Introduction

The user's manual given by the manufacturer contains information about the machine parts. Each machine operator should read these instructions carefully, and the machine should be operated after fully understanding them.

Safe and efficient use of the machine for long term depends on understanding and following the instructions contained in this manual. The technical drawings and details contained in this manual constitute a guide for the operator.

1.2. Supplier Info

ATECH MACHINE, INC.

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Gaithersburg, MD 20877

Ph.: 240-505-1967

ATechMachinery.com

info@ATechMachinery.com

*In case of any technical problem please contact your nearest ATECH dealer or ATECH head office through the above mentioned phone, fax or e-mail address.

*Technical labels with the model description of the machine are fixed onto the front side of each machine.

*The machine serial number, engine values, air pressure, air consumption and production date are printed on the technical label.

2. MACHINE'S DESCRIPTION AND TECHNICAL FEATURES

2.1. Machine's Description

PVC, Aluminum and wooden profiles are cutting machines with circular saw cutting in series at the desired angles. The operator adjusts the cutting progress (manually from the cutting speed setting (*see. Figure 1*)) of the saw according to the type and size of the material.

- The machine is designed according to the CE regulations.
- 15° - 22,5° - 30° - 45° - 90° the angles with spring set, free cutting can be done at other intermediate degrees.
- It is possible to adjust the cutting speed progress precisely according to the material type.
- During the cutting process, if the upper casing cover is opened, the saw don't cutting at the in terms of safety and returns to the starting position.
- After cutting is completed, the saw from the last point automatically returns to the starting point.

STANDARD ACCESSORIES

- Ø700 / Ø760 mm Saw Blade
- Air gun
- 2 Vertical Pneumatic Clamp Pistons
- 1 Horizontal Pneumatic Clamp Piston
- Pneumatic Spray Mist Lubrication System
- Automatic opening of Top Guard

OPTIONAL ACCESSORIES

- Conveyor
- 1 Qty. Horizontal Pneumatic Cylinder
- Chip Collector Manifold

Please mention the below mentioned data in all your correspondence regarding the machine with the manufacturer and/or your ATECH dealer.

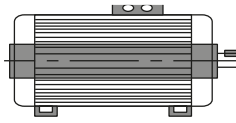
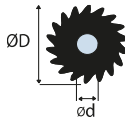
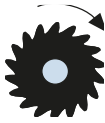

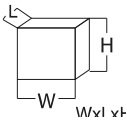
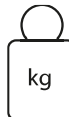
- Machine model

- Machine's serial number
- Voltage and frequency
- Name of dealer where machine was purchased
- Date of purchase
- Description of the machine fault
- Average daily operation period



Figure 1 : Hydro-Pneumatic Cylinder Saw Blade Rising Speed Adjustment

2.2. Technical Features

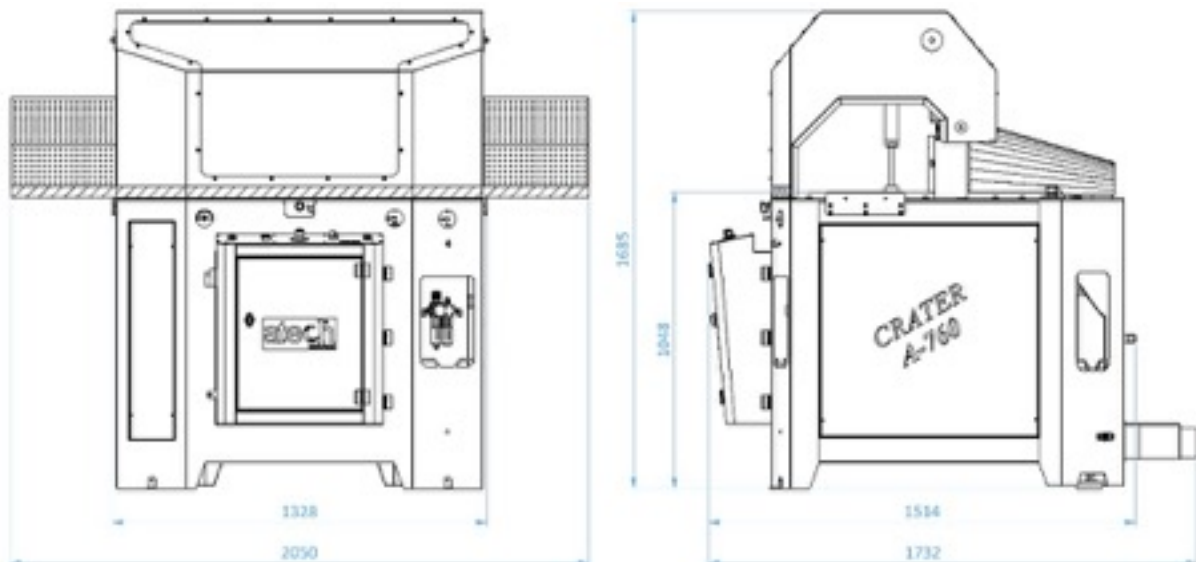
			 BAR AIR CONS		
4 KW / 5.5 HP	D=700 / 760 mm d=38 mm	2000 rpm	6-8 Bar 150 lt/min	134 x 152 x 170 cm (53"x60"x67")	660 kg (1,452 lbs)

2.3. Cutting Diagram





2.4. Overall Dimensions



2.5. Electric And Pneumatic Control Board

There is an electrical panel at the top, the energy must be turned off by the authorized electrician and should be checked with the diagram on the cover in case of a problem.

In the lower part there is a pneumatic panel.

There is an irrigation canister behind the chassis. It must be opened by authorized personnel and filled with suitable oil. The oil to be used must be water thick, the system is not suitable for throwing thick oil.

The panel door must be closed and locked during operation. In the service work carried out for maintenance and possible defects;


CLOSE ELECTRICAL AND PNEUMATIC POWER RESOURCES.

If the air pressure falls below 4 bars, the movement of the saw and the movement of the pneumatic vice can not be achieved.

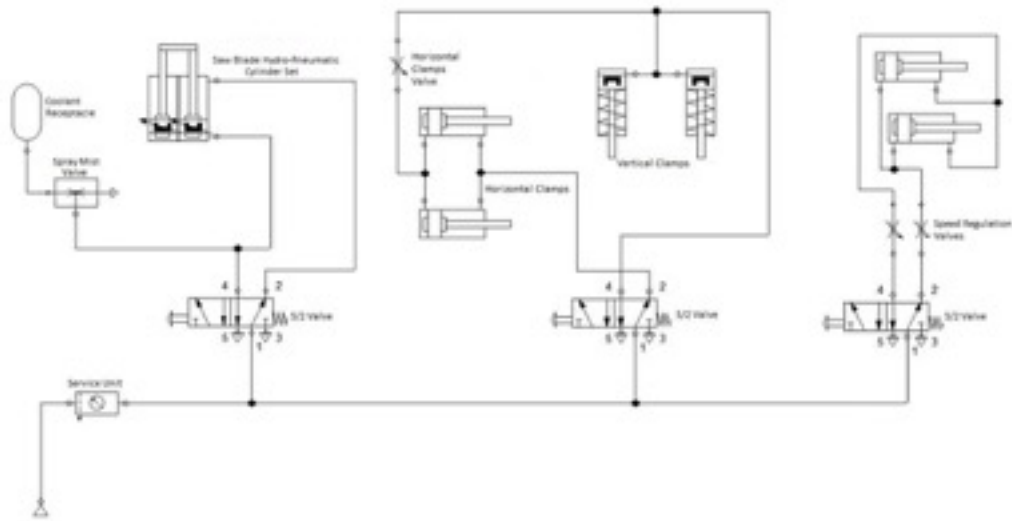
2.6. Part List and Technical Drawings

No	Şekil / Figure	Adı / Name	Adet / QTY	Parça Kodu / Code
1		Ø700 / Ø760 Saw	1	CRA70/76-02-0001
2		4 kW Motor	1	CRA70/76-04-0002
3		Motor Connection Block	1	CRA70/76-02-0003
4		Belt Pulley Protection Part	1	CRA70/76-02-0004
5		Motor Tensioner Sheet Metal	1	CRA70/76-02-0005
6		Motor Tensioner Bolt Print Washer	1	CRA70/76-02-0006
7		Motor Tensioner Part	1	CRA70/76-02-0007
8		Belt	1	CRA70/76-02-0008
9		Saw Shaft	1	CRA70/76-02-0009

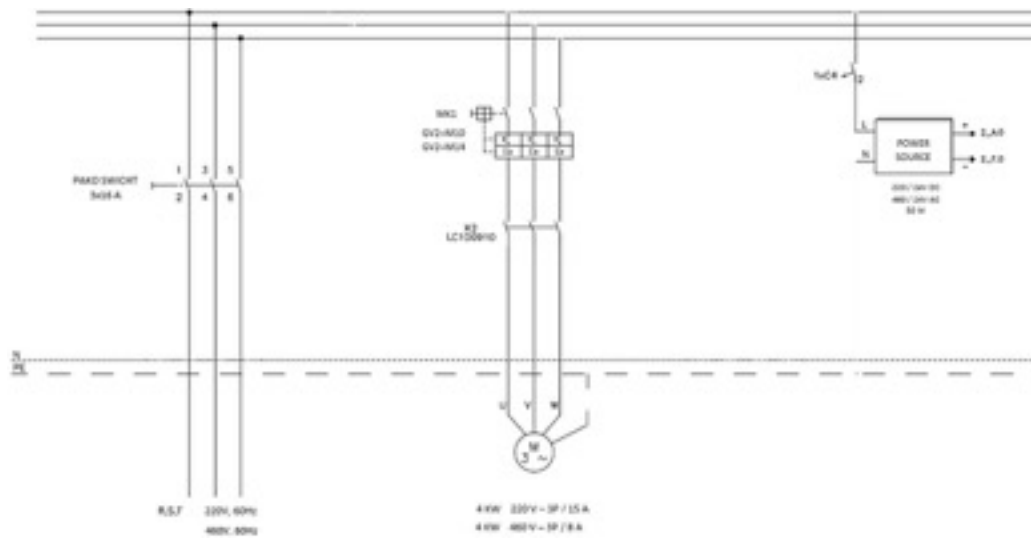
10		Motor Pulley	1	CRA70/76-02-0010
11		Motor Pulley Washer	1	CRA70/76-02-0011
12		Coupling	1	CRA70/76-02-0012
13		Washer (38-40mm)	1	CRA70/76-02-0013
14		Saw Flange	1	CRA70/76-02-0014
15		Saw Washer	1	CRA70/76-02-0015
16		Saw Shaft Nut	1	CRA70/76-02-0016
17		Saw Shaft Pipe	1	CRA70/76-02-0017
18		6207 ZZ Bearing	3	CRA70/76-02-0018
19		Bearing Cover	2	CRA70/76-02-0019
20		Hydracheck	1	CRA70/76-03-0020

21		Pneumatic Cylinder	1	CRA70/76-03-0021
22		Top Cover Lifting Cylinder	2	CRA70/76-03-0022
23		Saw Casing Cover	1	CRA70/76-01-0023
24		Moving Front Miter	2	CRA70/76-02-0024
25		Vertical Clamping Pneumatic Cylinder	2	CRA70/76-03-0025
26		Horizontal Clamping Pneumatic Cylinder	2	CRA70/76-03-0026
27		Standard Degree Plate Tightening Mechanism	1	CRA70/76-02-0027
28		Manual Conveyor	1	CRA70/76-01-0028
29		Chip Absorption Manifold	1	CRA70/76-01-0029

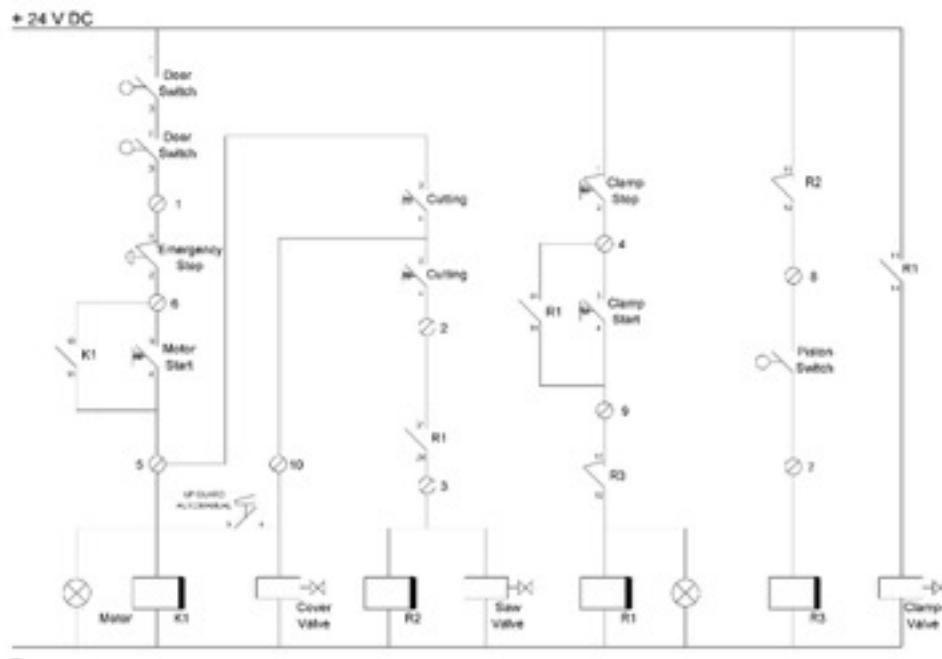
2.7. Pneumatic Circuit Scheme



2.8. Electric Power Scheme



2.9. Electric Circuit Scheme



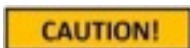
3. SAFETY

3.1. Safety Information

The symbols shown hereunder are necessary to be read with special attention. Not reading or observing of them may cause damage to the equipment or personal injury.



The **IMPORTANT** symbol above is one telling to apply special care and to be careful at carrying out the specified operation.



The **CAUTION!** symbol above warns you against specific dangers and requires to read the text. Not observing may cause damage to the equipment.



The above symbol **DANGER WARNING**, warns you against specific dangers and you have definitely to read them. Negligence may cause damage to the equipment and bodily injury. Read the user's manual carefully before using the machine or carrying out maintenance works.

3.2. Accident Prevention



3.2.1. Our machines are manufactured in accordance with EN 60204-1 and EN 292-2 CE safety directives, which cover national and international safety directives.

3.2.2. It is the task of the employer to warn his staff against risks, to train them on prevention of accident, to provide for necessary safety equipment and devices for the operator's safety.

3.2.3. Before starting to work with the machine, the operator should check the features of the machine, learn all details of the machine's operation.

3.2.4. Machine should be operated only by staff members, who have read and understood the contents of this manual.

3.2.5. All directives, recommendations and general safety rules contained in this manual have to be observed fully. The machine cannot be operated in any way for purposes other than those described herein. Otherwise, the manufacturer shall not be deemed responsible for any damages or injuries. And such circumstances would lead to the termination of the warranty.







3.3. General Safety Information



1. The power cable should be led in such a way that nobody can step on it or nothing can be placed on it. Special care be taken regarding the inlet and outlet sockets.
2. If the power cable should be damage during operation, don't touch and unplug it. Never use damaged power cables.
3. Don't overload machines for drilling and cutting. Your machine will operate more safely with power supply in accordan CE with the stipulated values.
4. Don't place your hands between parts in motion.
5. Use prtective eye glasses and ear plugs. Don't wear oversize clothes and jewels. These can be caught by moving.
6. Keep your working place always clean, dry and tidy for accident prevention and safe operation.
7. Use correct illumination for the safety of the operator. (ISO 8995-89 Standard The Lighting of Indoor Work System)
8. Don't leave anything on the machine.
9. Don't use any materials other than those recommended by the manufacturer for cutting operations on the machine.
10. Ensure that the work piece is clamped appropriately by the machine's clamp or vice.
11. Ensure safe working position, always keep your balance.
12. Keep your machine always clean for safe operation. Follow the instructions at maintenance and replacement of accessories. Check the plug and cable regularly. If damaged, let it replace by a qualified electrician. Keep handles and grips free of any oil and grease.
13. Unplug first, before conducting and maintenance works.
14. Ensure that any keys or adjustment tools have been removed before operating the machine.
15. If you are required to operate the machine outside, use only appropriate extension cables.
16. Repairs should be carried out by qualified technicians only. Otherwise, accidents amt occur.
17. Before starting a new operation, check the appropriate function of protective devices and tools, ensure that they work properly. All conditions have to be fulfilled in order to ensure proper operation of your machine. Damaged protective parts and equipment have to be replaced or repaired properly (by the manufacturer or dealer).
18. Don't use machines with improper functioning buttuoons and switches.
19. Don't keep flammable, combustive liquids and materials next to the machine and electric connections.

3.4. Safety Symbols And Meanings

	<p>Electric warnings.</p>		<p>Use protective goggles.</p>
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	If main connection cable is damaged during operation, do not touch it and disconnect the main plug from main socket.		Use protective earmuffs.
	When machine is working, do not make your hand close to saw blade.		Use protective gloves when changing the saw.
	Keep working environment clean, dry and tidy.		Read operating instructions carefully before using or maintaining the machine.

4. **TRANSPORT OF THE MACHINE**

IMPORTANT

* The transport should be done by qualified personnel only.

4.4.1. The machine should be transported by lifting with proper equipment (not touching the ground during the transport).

4.4.2. Don't lift the machine before ensuring that lifting devices or other equipment is placed properly under the machine.

4.4.3. For the weight and dimensions of the machine, 2.2. Technical Features.

5. **INSTALLATION OF YOUR MACHINE**

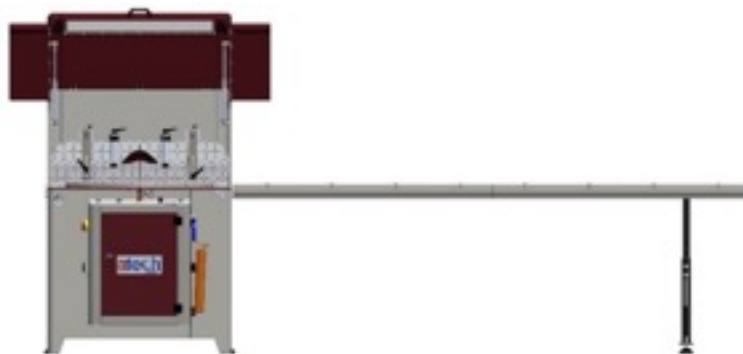
The machine should be located at least 100 cm in front of the back wall. The machine is equipped with a burr collection bag connector and power supply socket on the back side.

5.1. **Preparation**

5.1.1. The outer dimensions of the machine are stipulated in the dimensions page. The ground, where the machine will be placed, should be even, solid enough to bear the weight of the machine.

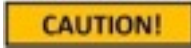
5.1.2. At the double head automatic saw machine Crater all parts are delivered by the manufacturer ready for use.

5.1.3. Do not make electrical connections without removing the bolt and stop connections used for the detection of running systems before the machine is started and without wiping the protective oil layer in working parts.



5.2. Instructions For Safe Connection Of The Machine To The Power Source

- 5.2.1. The three-phase electrical cable socket must have five inputs to the cable on the machine.
- 5.2.2. Use a connection cable sockets in accordance with the CE Safety Directives.
- 5.2.3. Check the inlet power supply before powering the machine.



The socket connections have to be made by a qualified electrician, the rotation direction of the saw blade has to be observed by starting the machine. If the saw blade rotates in reverse direction, the socket connections have to be checked and re-connected properly. If the direction of rotation of the saw blade is reversed, it is dangerous to Operator and equipment. It causes the saw teeth to break and cracks.

Plug the machine's electrical power socket into the previously prepared 3-phase socket socket to follow the saw-turn direction and follow the following procedures:

1. Press the motor start button to rotate the saw.
2. Observe the direction of rotation of the saw.
3. The direction of rotation of the saw is available on the turn direction label on the table.

If the saw blade rotates in reverse direction: The electric socket connections have to be checked and corrected by a qualified electrician. The direction of rotation of the saw must not be run without testing.

5.3. Air Pressure Setting

For the pneumatic system to operate properly, the air pressure must be 6-8 bars. **Do not operate at lower pressures than 6 bars.** Read the manometer on the conditioner to calibrate and check the air pressure.

Follow the steps below for air pressure settings.

- 5.3.1. Pull up the conditioner adjustment knob.
- 5.3.2. The pressure increases when the knob is turned clockwise, while the pressure decreases when it is turned counter-clockwise.
- 5.3.3. When you read the 6-8 Bar pressure setting on the pressure gauge, lock the conditioner setting knob.
- 5.3.4. The conditioner unit accumulates the water contained in the air system into the collection container so as not to damage the pneumatic system components. Automatically removes water collected when air is supplied to the machine.
- 5.3.5. The oil recommended by the manufacturer in the conditioner is TELLUS C 10 / BP ENERGOL HLP 10 / MOBIL DTE LIGHT / PETROL OFFICE SPINDURA 10.

6. MACHINE SAFETY DATA



- 6.6.1.** It is not allowed to operate the machine with the protective cover and other protective equipment removed.
- 6.6.2.** Your machine must be operated with the voltage on the technical label. Let the electric installation of your machine carry out by a qualified electrician only. Grounding must be done. There will be irregularities in machine operation if grounding is not done properly.
- 6.6.3.** Lifting, installation, electric, pneumatic maintenance of the machine should be carried out by qualified personnel only.

6.6.4. Routine maintenance and scheduled maintenance should be carried out by qualified personnel after unplugging the machine and disconnecting the air supply first.

6.6.5. Ensure that the machine has been cleaned, tested and maintenance before starting to operate.

6.6.6. Check the safety devices, power cable and moving parts regularly. Don't operate the machine before having replaced defective safety devices or faulty parts

6.6.7. Never replace the circular saw without disconnecting the air and the electrical and pneumatic power connection.

6.6.8. Keep foreign materials away from the working area of the machine, keep away from the machine's moving parts.

IMPORTANT

The saw blade continues its rotation for a while after switching off the motor.

CAUTION!

Don't use the machine for purposes other than it has been designed for (cutting of iron and other ferrous materials).

IMPORTANT

The safety data have been defined above. In order to prevent physical damage or damage to the equipment, please read the safety information carefully and keep the manual always in an easy accessible place.



If the top cover is open, the engine will not start in terms of worker safety.

7. OPERATION

CRATER Undercutting cutters cut products made from Aluminum, Wood and hard plastic materials which are not ferrous alloy. The operator adjusts the cutting progress of the saw according to the type and size of the material. (Manual) The inner and outer sharp edges of the circular saw allow you to obtain a smooth surface at high quality.

7.1. Angled Cutting On The Plate

7.1.1. Do not try to cut the parts / materials that you want to cut before tighten the clamps on the machine.

7.1.2. The vices on the machine are in vertical or horizontal position. The pneumatic clamps can be easily adjusted to the material.

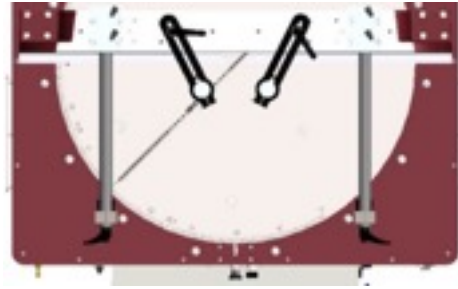
7.1.3. The clamp piston moves in the pneumatic clamps.



During the cutting process, the clamping lugs of the clamps must be outside the work area of the circular sawing.



CORRECT



WRONG

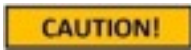
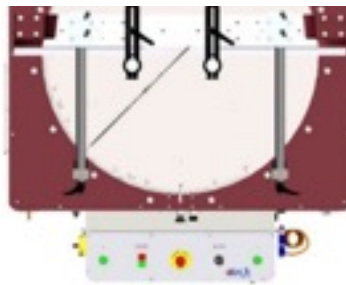
- 7.1.4. Avoid touching the buttons on the clipboard at random. If you are in danger during cutting, press the emergency stop button immediately to end cutting.
- 7.1.5. Close the front door on the chassis and control panel and lock it with the key. (If the chassis front cover is open, the engine will not operate for safety reasons).

NOTE: The chassis front cover and rear panel cover can only be opened when the machine is serviced and cleaned, or when the saw is replaced. At this time, turn the Main Switch's position to position 0 and turn off the power, then open the front and back panel covers.

- 7.1.6. Set the cutting degree of the material to be cut according to the graduated scale (15°- 22,5°-30°-45°-90° etc) on the machine. Loosen the tab lock retaining screw by turning it clockwise to rotate the turntable. Set the degree to which you want to work with the degree adjustment switch. Do the reverse operation of loosening the turntable to secure it.

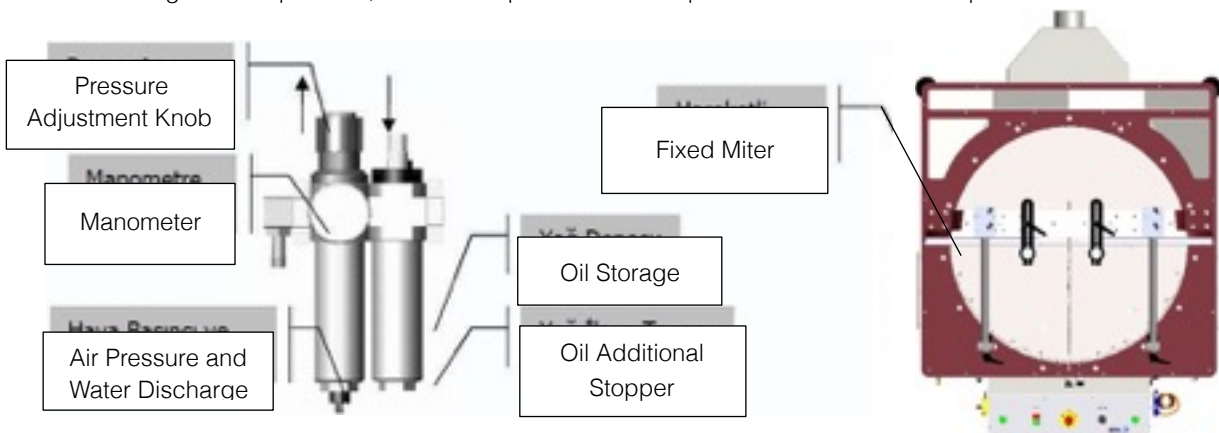


Do not use the horizontal clamp on the side where the saw rotates when cutting more than 45 ° in degrees.



NOTE: When performing graduated cutting operations on the machine, make sure that the clamps and right-left miter frames are out of the operation area.

- 7.1.7. Set the length of the material to be cut to the desired unit of measure in meters. Once the desired piece size has been set, tighten the piece to fix the profile rest.
- 7.1.8. Ensure that the vertical pneumatic vices tighten the piece using the vise button on the machine.
- 7.1.9. Press the motor start button to rotate the saw.
- 7.1.10. Start the cutting action of the saw by pressing both of the cut start buttons.
- 7.1.11. The circular saw will cut the fixed profile with the upward movement and continue to the closed position until the cut start button is pressed again after the cutting operation is finished.
- 7.1.12. Cut the saw by manually adjusting the cutting speed adjustment valve according to the type and size of the material to be sawed and cut the cutting process until the saw cuts down again.
- 7.1.13. Using the clamp button, remove the print on the clamps and remove the cut off piece.



IMPORTANT

Set the air pressure between 6-8 bars. The manometer is read as air pressure bar. If the reading on the pressure gauge is less than or equal to the desired pressure, turn the air pressure adjustment switch to the right or left to adjust the pressure to 6-8 bar. If your air pressure drops below 4 Bar, the saw movement on the machine and the vices will not work until the air pressure is returned to the desired level due to operational safety.

7.1.14. The conditioner unit collects the water contained in the air system into the collection container so as not to damage the pneumatic system components. Periodically (on the working day) drain the water by pressing or opening the button under the conditioning cylinder deposit to drain the collected water.

8. SAFE INSTALLATION OF THE SAW BLADE

To remove the circular saw blade from the saw mill, apply the following sequence.

- 8.8.1. Cut off the machine's electrical and air connection. Open the control board with the front cover lock on the chassis, remove the side cover sheet metal. (Figure 2, 3)
- 8.8.2. Remove the saw casing cover sheet metal. (Figure 4)
- 8.8.3. Remove the M10 screw by turning with a 8 mm allen key (Hold the saw blade shaft at the opposite end with a other 8 mm allen key and prevent so that the shaft turns). (Figure 5, 6)
- 8.8.4. Remove the 30x8x7mm washer and Saw Flange parts regularly. (Figure 7)
- 8.8.5. Carefully remove the saw.
- 8.8.6. Fit the saw you want to change on the shaft, making sure the direction of rotation is correct.
- 8.8.7. **When replacing the saw with the new one, use the portion of the saw blade that corresponds to the saw blade diameter. The outer diameter of the saw ring is two parts according to 38 and 40mm.**
- 8.8.8. Fit the other parts (Washer and Saw Flange) in order, following the reversal of the operations on the shaft.
- 8.8.9. Tighten the M10 screw by turning it clockwise with an 8 mm Allen key (Hold the saw blade shaft at the opposite end with a other 8 mm allen key and prevent so that the shaft turns).
- 8.8.10. Install the saw cover. Close the chassis side cover plate and control board.

NOTE : The saw you use must be sharpened / changed at certain intervals depending on the type of material being cut. When the cut workpiece is burned at the end of cutting or when the cutting is forced, sharpening / changing operation is performed.

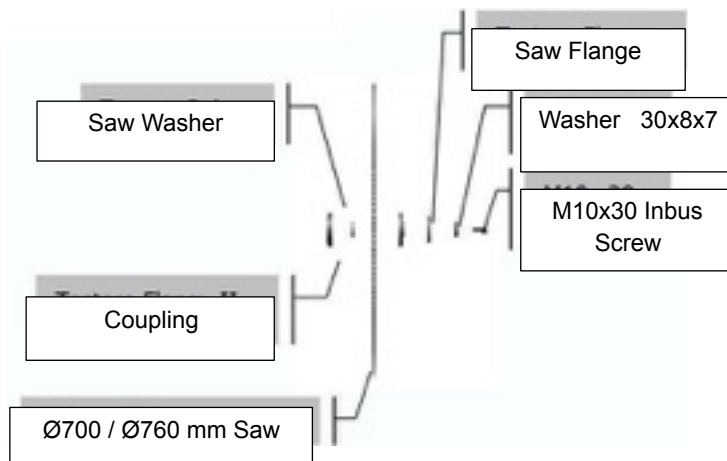




Figure 2 : Open The Control Board And The Side Cover Plate.

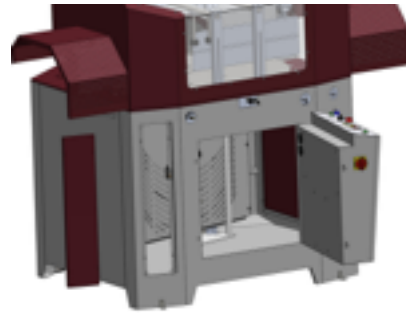


Figure 3

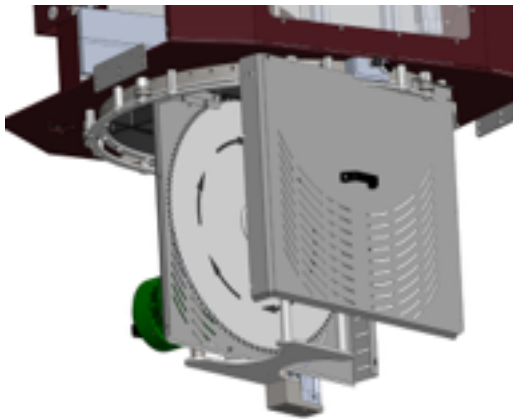


Figure 4

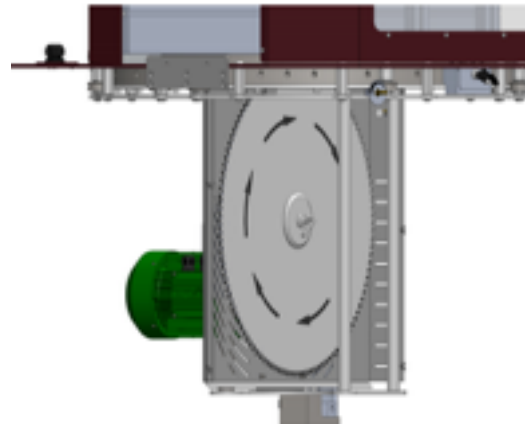


Figure 5

Figure 6

Figure 7

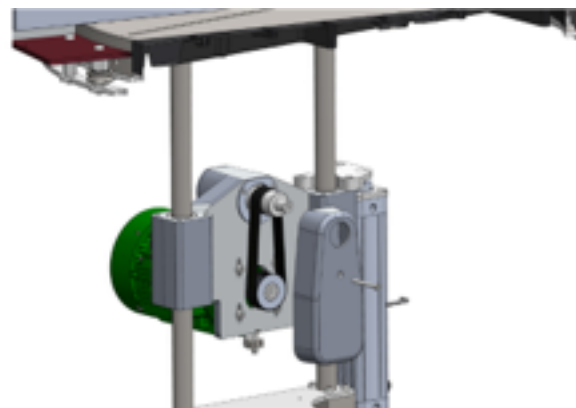
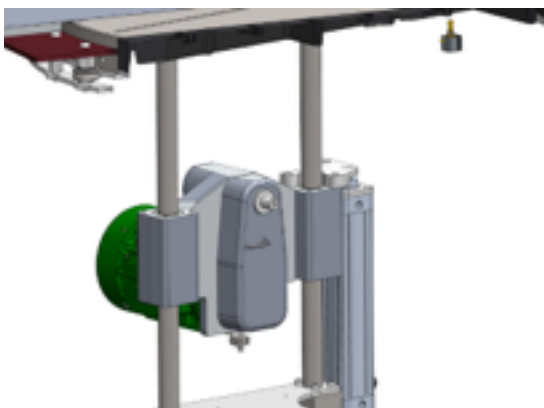
9. SAFE INSTALLATION OF THE BELT

Follow the instructions below to safely replace the CRATER A700/760 machine belt.

9.9.1. Remove the saw by performing the saw disassembly procedures.

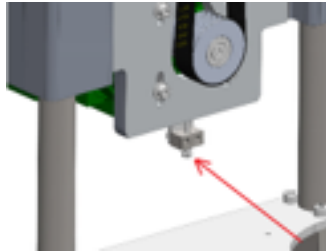
9.9.2. Remove the saw guard assembly.

9.9.3. Remove the M6 screw by turning with a 5 mm allen key.



9.9.4.Remove the belt cover.

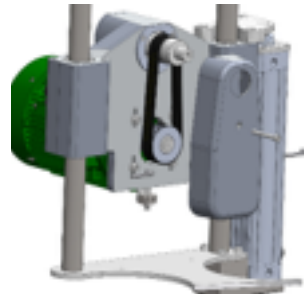
9.9.5.Loosen the M10 key-head bolt with the 10 mm keys.



Loosen with 10

9.9.6.Loosen the M8 screws by turning them clockwise with a 6 mm Allen key.

9.9.7.You can change the belt by loosening the motor block.



9.9.8.Once you have changed the belt, procedures.

finish the process by following the

10. MAINTENANCE

1. Routine Controls, Maintenance And Work Starting

- 1.1. Make sure the table and all parts are clean and dry. Clean the table from the oil and dry it. Be especially sure of the cleanliness and dryness of the handle.
- 1.2. Clean all surfaces of the machine from the sawdust, chips and foreign materials. Use glasses and glove to protect yourself from harmful substances.
- 1.3. Check the saw blade against wear, bending, cracking and breakage before each use. Turn carefully to see each tooth of the saw (after removing the saw protective housing). If the saw is damaged, change the saw.
- 1.4. Check the air pressure system pressure. If necessary, set the air pressure around 6-8 bar.
- 1.5. Check the air pressure filters and the oil level in the conditioner. If you do not have enough oil, complete it.



Disconnect the electrical power connection and air pressure connections before doing all this.

2. Method Of Hydro-Pneumatic Cylinder Air Reception And Oil Complementation

10.2.1. Method Of Hydro-Pneumatic Cylinder Air Reception

1. Remove 4 allen head bolts that connect hydro-pneumatic cylinder to the system.
2. Remove the countersunk head bolt from the top of the torso, which is connected to the hub of the machine.
3. Remove the nut connecting the speed setting (min-max) unit to the left of the front control panel.
4. Remove the hydro-pneumatic cylinder.
5. Pull out the shaft in the hydro-pneumatic cylinder to be in the ON (out) position.
6. In the position shown in the picture, the unit to the clamp so that the system is not damaged connect/tighten.



7. Open the oil drain / deaeration unit plug in the shape of the photo.



8. Press gently on the top of the oil discharge unit with a flat, blunt metal (for example 3 allen).
 - a. Foamy oil will come in the first place during the press.
 - b. Continue this process slowly until the unfoamed oil comes.
9. When the oil is froth free stop the process and wipe with a dry cloth. Replace the hydro-pneumatic cylinder.

10.2.2. Oil Completion Method

There is a possibility of a handicap after the air reception process. That's the output height of the saw. Since the amount of oil in the system is reduced, the output distance of the saw can be reduced. Here's what you need to do to get your saw to reach the maximum height again. Oil pressing tool is necessary operation for oil pressing. However, if you do not have the necessary oil-press tool, you can also do the following.

1. Follow the same steps until the first 6 items of hydro-pneumatic cylinder air reception.
2. Remove the oil filler unit.
3. Add "HYDRO OIL HD 46" or equivalent oil to the system and close the oil filling unit.
4. Repeat steps 7 and 8 of the hydro-pneumatic cylinder air reception method to get any air that may form in the system.

3. SPRAY MIST SYSTEM MAINTENANCE

- 3.1. The front cover of the machine will be opened and the drum at the bottom will be taken out.
- 3.2. The cooling oil prepared by opening the drum cover will be put into the drum provided that it is not filled completely (The oil to be used should be close to the water flow, the system is not suitable for throwing thick oil).
- 3.3. Make sure that the hose on the cover is fully inserted into the canister and on the filter.
- 3.4. The cover will be tightly closed and the hose will be placed inside the machine, taking care not to break it.

3.5. Valve on the side will be turned to "ON" position when lubrication is required.



Valve Closed



Valve Open

3.6. Lubrication action occurs only when the saw goes up

4. Work Day End Care

- 4.1. Disconnect the electrical and pneumatic power connections.
- 4.2. Clean all surfaces of the machine from the sawdust, chips and foreign materials. If cleaning of the protective housing is necessary, remove the front cover and wear gloves to protect your hands from the cutting edges of the saw. Use glasses to protect yourself from harmful substances.
- 4.3. If water and water based liquids are used during cutting operations, dry the machine with dry cloth at the end of the work.
- 4.4. Apply a thin layer of oil to the plate to protect it from corrosion. If it is not to be used for a long time, lubricate with a protective oil.
- 4.5. Avoid materials that damage the paintwork while cleaning the machine.
- 4.6. Lubricate both surfaces with machine oil or a protective oil to protect the saw from corrosion.

11. TROUBLESHOOTING GUIDE

Here are our suggestions to get rid of immediate problems. If the fault can not be rectified or if you encounter a fault other than those listed below, please contact the technical service.

TROUBLES	CAUSES	REMEDY
Low surface quality (at aluminum and similar materials); <ul style="list-style-type: none"> • Rough surface, • Large chip, • Not homogenous surface, • Saw blade traces visible 	Not cooling the saw blade surfaces.	Lubricating the saw blade cutting surfaces, Using of cooling liquid.
	Using of damaged or blunt saw blade or the saw rotating in reverse.	Check the saw blade teeth. Replace if necessary. Check the electricity.
	Saw blade moves too quick.	The cutting speed is too high for the material. Decrease the cutting speed.
Motor does not work (Start button is pressed, not working)	No power supply to the machine.	Check the electric cable connections. Check the electric power sockets.
Motor is working but the pneumatic clamp piston do not work.	The air supply connections are missing, or the air pressure is too low.	Check the air compressor connections. Adjust the air pressure between 6-8 Bar on the conditioner.
The saw blade rotates in reverse direction.	The electric connection or the power cable is wrong.	Let the electric connections carry out by a qualified electrician.

No lubrication.	It may be related to the oil amount, oil fluidity or valve.	<ul style="list-style-type: none"> • Check the oil level. • Observe the oil hose in the oil. • Open the valve. • Be sure to use the appropriate oil. • Blow air into the end of the hose inside the drum with an blow gun.
Lubrication is less.	It may be related to the sprayer.	Open the dimmer on the sprayer.

12. COMPONENTS

1. ELECTRIC COMPONENTS

PART NAME	QTY
ELECTRIC MOTOR	1
POWER CABLE 4x1,5 mm3,5 m	

2. HYDRAULIC-PNEUMATIC COMPONENTS

PART NAME	QTY
FRC 1/4 D MINI CONDITIONER	1
PNEUMATIC CLAMPS	2
DMC-A Ø63 x 325 PNEUMATIC CYLINDER	1
DMC-A Ø50 x 60 PNEUMATIC CYLINDER	2
SPC Ø50 x 25 PNEUMATIC CYLINDER	2
HYDROCHECK	1