ATECH

Aluminum, Vinyl & Wood Fabrication Machinery

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LIBRA-06 M

MANUAL COPY ROUTER

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 ınstructions 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 dtawings and details contained in this manual constitute a guide for the operator.

1.2. Information About The Manufacturer

ATech Machine, Inc.
www.ATechMachinery.com
Toll-Free: +1-855-ATECH-US
e-mail : 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's serial number and manufacturing year are stipulated on the technical label.

2. MACHINE'S DESCRIPTION AND TECHNICAL FEATURES

2.1. Machine's Description

Manual copy router designed to open lock, handle, hinge and window fastening slots onto PVC and Aluminium profiles.

- Machine has been designed according to CE Safety Directives.
- Clamping and copy routing operation is carried out manually.
- Channels in different dimensions can be opened independently from copying.

STANDARD ACCESSORIES

- Ø 5 mm Router bit
- Twin pneumatic clamps
- Profile support bars
- Air gun
- User's manual

OPTIONAL ACCESSORIES

- Spare router bit
- Pneumatic spray mist lubrication system
- 3-Phase motor

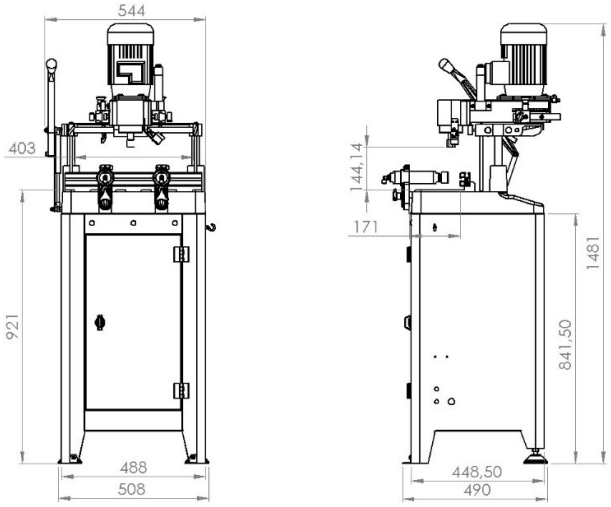
Please mention the below mentioned data in all your correspondence regarding the machine with the manufacturer and/or your ATECH dealer.

- 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

2.2. Technical Features

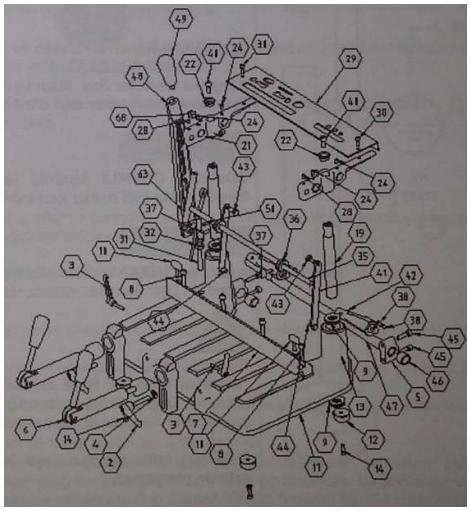
Libra-3						
ALU PVC	1,1 kW 230 V, 50/60 Hz	14000 r.p.m.	x= 235 mm y=120 mm z=150 mm	BAR AIR CONS. 6-8 Bar 5 lt/min	W H WxLxH 56x45x145	kg 60

2.3. Dimensions



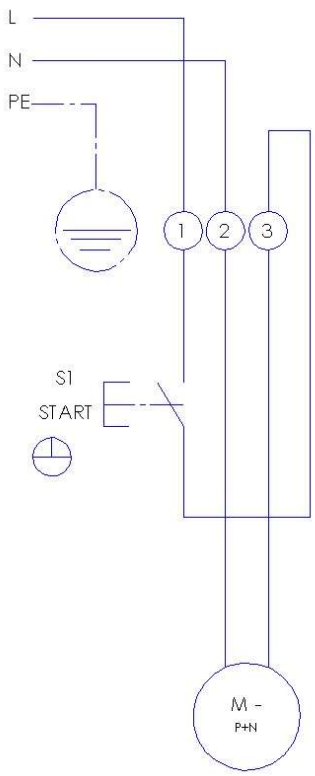
LIBRA 3

2.4. Part List and Technical Drawings

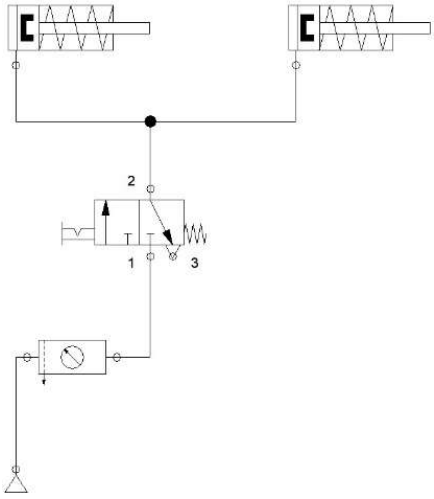


PART NO	PART NAME	QTY	PART NO	PART NAME	QTY
1	CLAMP HANDLE	2	**30**	M6x16 HEXAG. SCREW	2
2	HANDLE 1	2	**31**	M10x170 DOWEL	1
3	HANDLE 3	4	**32**	M10 BOLT	3
4	10 mm WASHER	2	**35**	12mm SUPPORT SHAFT	1
5	HOUSING	2	**36**	SUPPORT SHAFT BUSHING	2
6	MECHANIC CLAMP	2	**37**	TIGHTENING HANDLE	2
7	SET SOUARE	1	**38**	M8x12 SCREW	4
8	M8x35 HEXAG. SCREW	4	**40**	M8x20 HEXAG. SCREW	2
9	LINEAR BEARING 25x35x40	4	**41**	MOVEMENT PLATE	2
10	TIGHTENING HANDLE	2	**42**	MOVEMENT ANKLE	2
11	FOOT	1	**43**	M8x20 HEXAG. SCREW	2
12	FOOT PLASTIC	4	**44**	M8x16 HEXAG. SCREW	2
13	6 mm WASHER	6	**45**	M8x30 HEXAG. SCREW	4
14	M6x20 HEXAG. SCREW	8	**46**	25x20x20 SINTER BUSHE	2
19	COLUMN SHAFT	2	**47**	LEVER SHAFT	1
21	COLUMN SHAFT LEFT	1	**48**	LEVER	1
22	HOUSING SHAFT CONNECTION	2	**49**	BAKALITE LEVER AS-3 12x15	1
24	M6x10 HEXAG. SCREW	6	**50**	M8x25 HEXAG. SCREW	1
28	M6x8 SCREW	2	**63**	GAS SPRING 600643201 200N	1
29	COPY TEMPLATE	1	**68**	GAS SPRING CONNECT.	2

2.5. Electric Diagram



2.6. Pneumatic Circuit Diagram



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.

IMPORTANT

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

CAUTION!

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 Precention

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 he 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

3.3.1. 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.

3.3.2. If the power cable should be damage during operation, don't touch and unplug it. Never use damaged power cables.

3.3.3. Don't overload machines for drilling and cutting. Your machine will operate more safely with power supply in accordan CE with the stipulated values.

3.3.4. Don't place your hands between parts in motion.

3.3.5. Use prtective eye glasses and ear plugs. Don't wear oversize clothes and jewels. These can be caught by moving.

3.3.6. Keep your working place always clean, dry and tidy for accident prevention and safe operation.

3.3.7. Use correct illumination for the safety of the operator. (ISO 8995-89 Standard The Lighting of Indoor Work System)

3.3.8. Don't leave anything on the machine.

3.3.9. Don't use any materials other than those recommended by the monufacturer for cutting operations on the machine.

3.3.10. Ensure that the work piece is clamped appropriately by the machine's clamp or vice.

3.3.11. Ensure safe working position, always keep your balance.

3.3.12. 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.

3.3.13. Unplug first, before conducting and maintenance works.

3.3.14. Ensure that any keys or adjustment tools have been removed before operating the machine.

3.3.15. If you are required to operate the machine outside, use only appropriate extension cables.

3.3.16. Repairs should be carried out by qualified technicians only. Otherwise, accidents amt occur.

3.3.17. 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 monufacturer or dealer).

3.3.18. Don't use machines with improper functioning buttuons and switches.

3.3.19. Don't keep flammable, combustive liquids and materials next to the machine and electric connections.

3.4. Safety Symbols And Meanings

	Electric warnings.		Use protective goggles.
	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.

4.1.1. The machine should be transported by lifting with proper equipment (not touching the ground during the transport).
4.1.2. Don't lift the machine before ensuring that lifting devices or other equipment is placed properly under the machine.
4.1.3. Movable parts on the machine should be fixed before carrying out the transport through the support shaft fixing bushing.
4.1.4. Please keep the original packing of the machine for use at future transports.

5. INSTALLATION OF YOUR MACHINE

5.1. Preparation

5.1.1. The machine's overall dimensions are given under Figure 1. Place the machine onto an even ground, or onto the double tray tool cabinet delivered as optional equipment.
5.1.2. The machine should be located approx. 30 cm away from the rear wall. The power connection plug of the machine is located on the rear side of the machine.
5.1.3. The machine should be placed on even and solid ground.
5.1.4. At our portable copy router model LIBRA, connect the profile support bars by screwing the bars into each other. Fix the set square fence with the special screw onto the support bars. Insert the assembled support bars into the slot on the set square, and tighten with the special screw.

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

5.2.1. The electric cable socket has to be in accordance with the socket on the machine.
5.2.2. Your machine operates with 230V ~ 50Hz voltage.
5.2.3. Use the machine's plug with a grounded socket.

CAUTION!

5.2.4. Check the supply voltage. **The source voltage must be in accordance with the data on the machine's label.**

6. MACHINE SAFETY DATA

6.1.1. The machine should not be used without the transparent protection shield in front of the router bit.
6.1.2. Lifting, installation, electric, pneumatic maintenance of the machine should be carried out by qualified personnel only.
6.1.3. Routine maintenance and scheduled maintenance should be carried out by qualified personnel after unplugging the machine and disconnecting the air supply first.
6.1.4. Ensure that the machine has been cleaned, tested and maintenance before starting to operate it.
6.1.5. Check the safety devices, power cable and moving parts regularly. Don't operate the machine before having replaced defective safety devices or faulty parts
6.1.6. Never replace the milling cutters without disconnecting electrical and air power.
6.1.7. Keep foreign materials away from the working area of the machine, keep away from the machine's moving parts.

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.

7. OPERATION

7.1. Start To Work

7.1.1. Ensure that the machine table and all kind of parts are clean and dry. Degrease and dry the machine table. Especially ensure that the holding grips and handles are clean and dry.
7.1.2. Clean all surfaces of the machine from chip and foreign particles. Use eye glasses for protection.
7.1.3. Check with the appropriate keys that the router bit is tightened properly.
7.1.4. Check the router bir for wear, bending and breaking. Replace them if damaged.
7.1.5. The protable copy router machine LIBRA is used for opening of key lock shapes, hinge slots, window fastening slots and holes, slot channels in different dimensions independently from the copying onto non-ferrous aluminium materials and hard plastic materials or wood.
7.1.6. Fix the aluminium or PVC profile, which you want to process, with the fixed clamps on the machine table. Chose the shape on the copy template, which you want to copy onto the profile.
7.1.7. Keep the swtich button on the movable head pressed to rotate the router bit. At the same time, move the arm inside the shape slot to copy the selected shape onto the profile. Push the arm down as far as it is necessary for the routing operaiton on the profile.

CAUTION!

7.1.8. At the end of the copying operation, release the Start button. The router bit will come to a full stop within approx. 10 sec. After releaasing the button.

7.1.9. Open the clamps and take out the processed part.
7.1.10. The machine is equipped with horizontal clamps. These horizontal clamps can be easily adjusted according to the profile.

CAUTION!

7.1.11. Do not process the profile before before clamping the work piece properly.
7.1.12. **The router bit should be moved down only afer the regular rotation has been reached.**

7.2. Air Pressure Adjustment At Pneumatic Machine

7.2.1. Pull the adjustment button of the conditioner upwards.
   a. Turning the adjustment button in clockwise direction increases the pressure.
   b. Turning the adjustment nutton in counter clockwise direction decreases the pressure.
   c. Once you read 6-8 Bar on the manometer, push the adjustment button of the conditioner down and lock it in that position
7.2.2. Place the material to be cut on the machine table, take the measure the cutting length using the measuring tape on the back fence, and clamp the work piece (pneumatically or manually).
7.2.3. Start to operate the saw blade by pressing the Start button.
7.2.4. Carry out the cutting operation by pressing down the cutting head holding the grip.
7.2.5. After cutting off the material, bring the cutting grip to its original position, press the Start button. The saw blade will come to a full stop within 15 secs.
7.2.6. Release the clamp (manually or pneumatically) and take out the cut work piece.
7.2.7. The conditioner unit collects the water within the air system in a receptacle in order to prevent damage to the pneumatic system components. Discharge this water periodically (at the end of the workiing day) by pressing or opening the button under the conditioner.
7.2.8. The manufacturer recommends to use the following oils with the conditioner: TELLUS C 10 / BP ENERGOL HLP 10 / MOBIL DTE LIGHT / PETROL OFISI SPINDURA 10

8. SAFE INSTALLATION OF THE ROUTER BIT

8.1.1. If it becomes necessary to replace the router bit for any reason, follow the following order for replacement.
8.1.2. Disconnecting electrical and air power the machine first.
8.1.3. Loosen the nut shown in using 2 wrench keys 14 and 17 mm, turning it in counter clockwise direction. Take out the router bit from its holder. Insert the new router bit into the router bit holder, and tighten the nut.

CAUTION! **Note: ensure that the router bit is fixed properly.**

8.1.4. **Check the router bit before using it. The router bit has to be inserted into the holder properly. Don't use damaged router bits with improper function. Operate the machine for at least 30 seconds to be sure that the router bit has been inserted and fixed correctly.**

9. MAINTENANCE SERVICE AND REPAIR

9.1. Periodic Checks And Maintenance At The End Of The Working Day

9.1.1. Disconnecting electrical and air power the machine first.
9.1.2. Remove all burr, foreign materials from the machine's surface. Use protective eye glasses.
9.1.3. Clean and dry the machine table.
9.1.4. When cleaning the machine, don't use any materials which cloud cause damage to the machine's paint.

10. TROUBLESHOOTING GUIDE

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

TROUBLE	CAUSES	REMEDY
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 lowç	Check the air compressor connections. Adjust the air pressure between 6-8 Bar on the conditioner.
The milling knife rotates in the opposite direction.	The electric connection or the power cable is wrong	Let the electric connections carry out by a qualified electrician.

11. COMPONENTS

11.1. ELECTRIC COMPONENTS

PART NAME	QTY
ELECTRIC MOTOR	1
MOTOR PATCHER	1
POWER CABLE 4x1,5 mm	3,5 m
ELECTRIC PLUG	1

11.2. PNEUMATIC COMPONENTS

PART NAME	QTY
FRC 1/8 D MINI CONDITIONER	1
VALVE	1
PNEUMATIC CLAMP	2