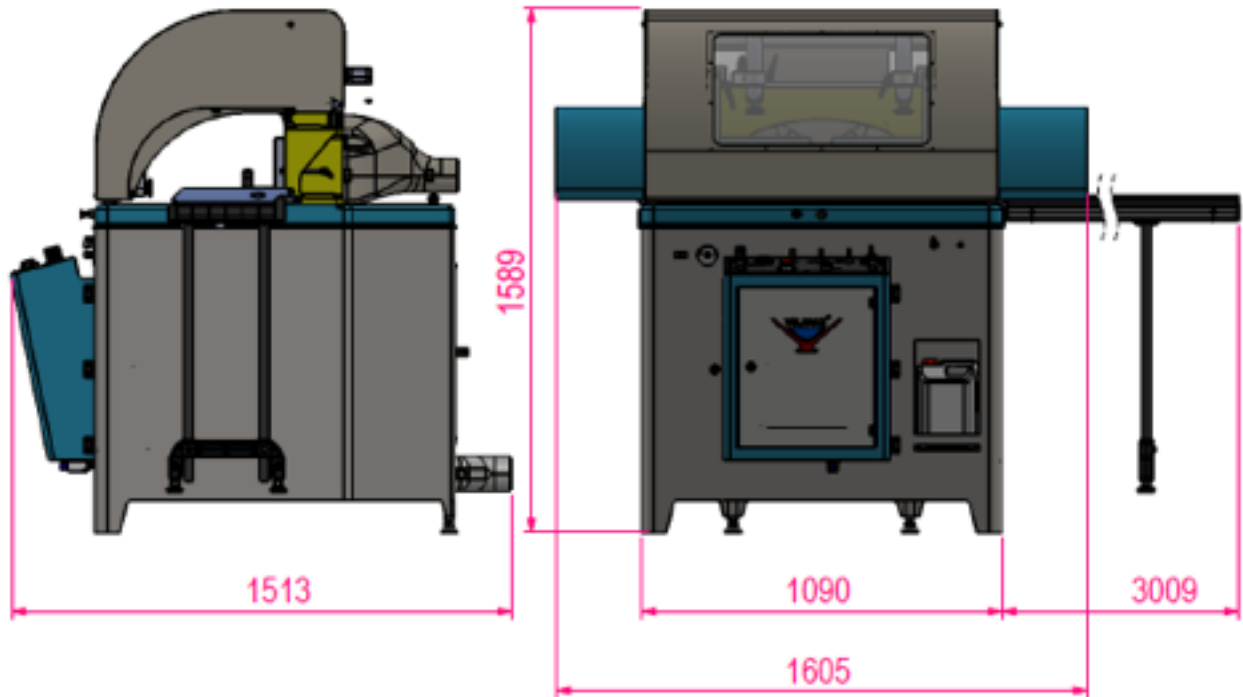


CRATER-02 A/700 (ACK700) - USER'S MANUAL

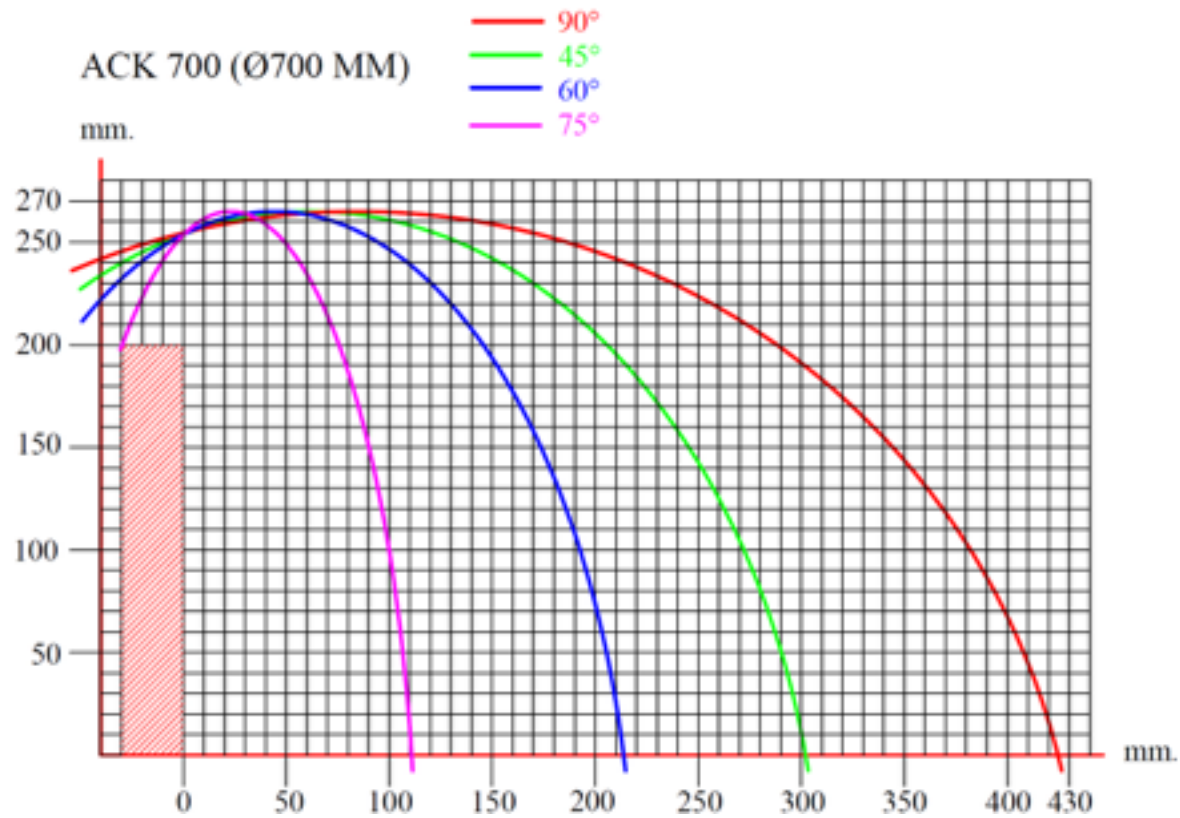
TECHNICAL FEATURES

						cm	kg	kg
CRATER-0 2 A/700 (ACK700)	4 kW 50 Hz 220/440 V AC 3 P PE	2000 RPM	D = 700 mm (28") d = 38 mm	6/8 Bar (90-120 psi)	60 Lt/dak Lt/min	W = 120-47" L = 145-57" H = 181-71"	500 (1,100 lbs)	550 (1,210 lbs)

OVERALL DIMENSIONS (mm)

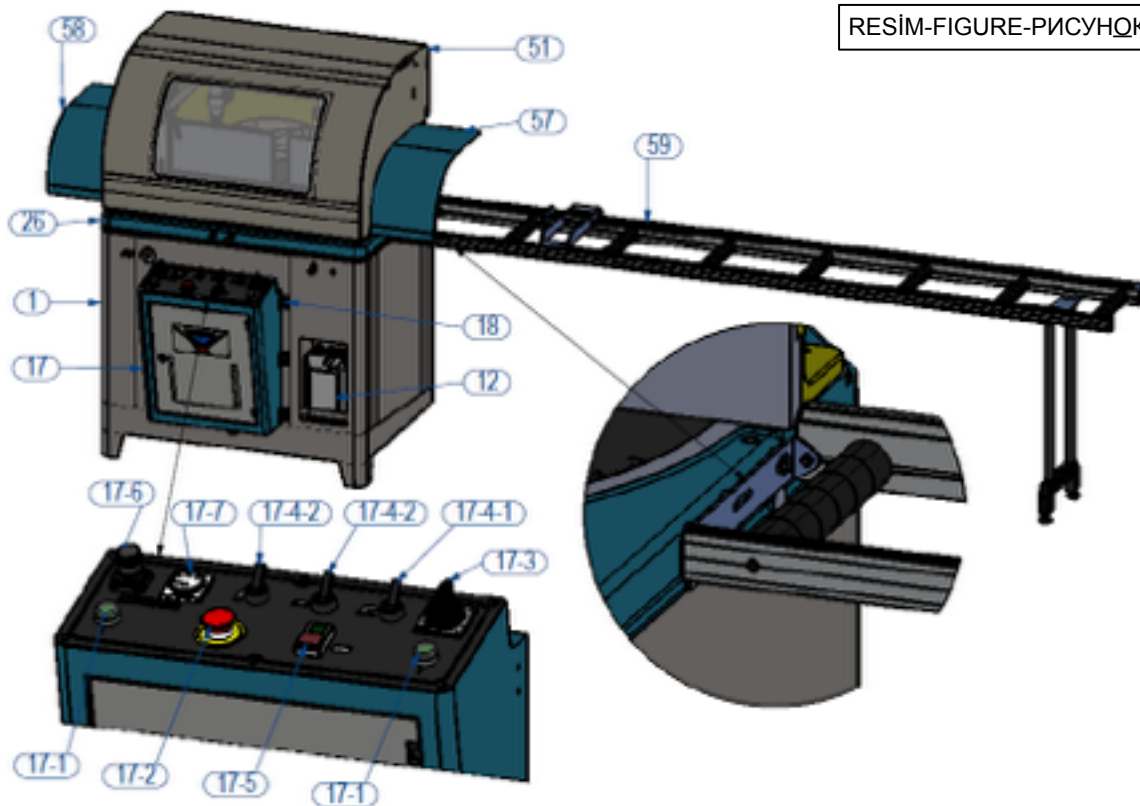


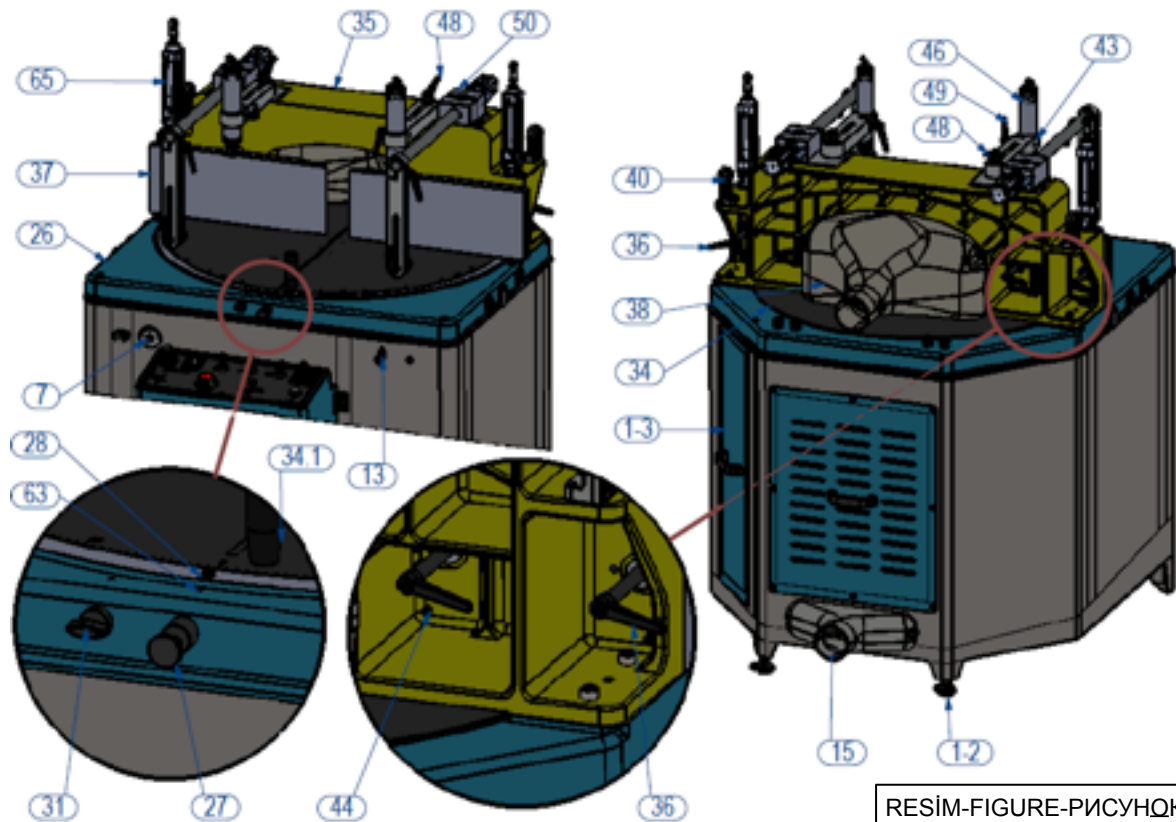
CUTTING DIAGRAM



PARTS LIST

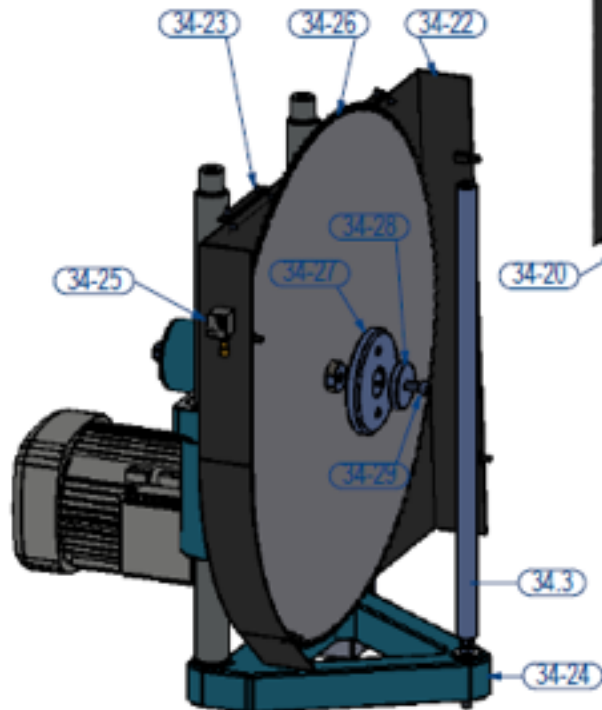
RESİM-FIGURE-РИСУНОК 1



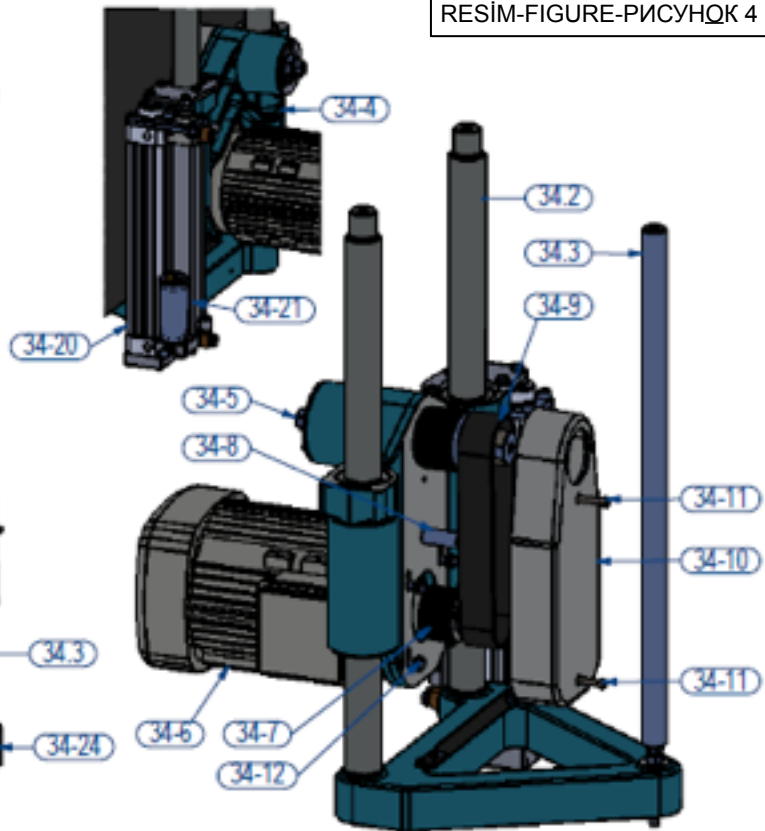


RESİM-FIGURE-РИСУНОК 2

RESİM-FIGURE-PICTURE 3



RESİM-FIGURE-PICTURE 4



NO	STOCK CODE	QTY	NO	STOCK CODE	QTY
1	1SA970000-0001-1	1	34-2	2TU015010-0223	2
7	1HD050000-0001	1	34-3	2TU011110-1608	1
12	1PL010000-0019	1	34-4	2TU012510-0588	1
13	1PN130000-0007	1	34-5	2TU011110-1603	1
15	2TU012510-0584	1	34-6	1EL070001-0005	1
17	1SA040000-0024	1	34-7	2TU012110-1079	1
17-1	1EL090000-0003	2	34-8	2TU011110-1606	1
17-2	1EL090000-0001	1	34-9	1SR070000-0032	1
17-3	1EL010000-0033	1	34-10	2TU012510-0590	1
17-4	1PN010000-0055	3	34-11	1SC021000-0020	2
17-5	1EL090000-0017	1	34-12	1SC011000-0019	4
17-6	1PN020000-0102	1	34-20	1PN020000-0307	1
17-7	1PN080000-0006	1	34-21	3UA050030-0025	1

18	1SC140000-0002	3	34-22	1SA970000-0001-2	1
26	2TU012550-0585	1	34-23	1SC021000-0064	12
27	3UA030030-0005	1	34-24	2TU012510-0589	1
28	2TU011441-0017	1	34-25	1PN010000-0012	1
31	2TU011110-0144	1	34-26	1SK010000-0089	1
34	2TU011610-0027	1	34-27	2TU011110-1605	1
31-1	1PL010000-0103	1	34-28	2TU011110-1607	1
34-29	1SC021000-0004	1			
35	2TU012510-0550-0	1			
36	3UA040030-0011	4			
37	2TU012410-0447	2			
38	2TU012510-0587	1			
40	2TU012710-0009	2			
44	1SC151000-0007	8			
45	2TU012210-1751	2			

46	2TU011510-0095	1			
48	2TU012610-0036	2			
49	2TU012610-0037	2			
50	3UA970030-0003	2			
57	1SA970000-0001-6	1			
58	1SA970000-0001-7	1			
59	4UN300030-0003	1			
63	1SC151000-0003	2			
65	1PN020000-0305	2			

SPARE PARTS LIST



PART NO	FIGURE	CODE	PART NAME
		1EL020000-0005	GUARD SWITCH
		1EL020000-0025	GUARD SWITCH (CE)
		1EL090000-0017	SWITCH
		1EL090000-0001	XB4-BS8442 EMERGENCY STOP BUTTON

		<p>1PN010000-0051</p>	<p>CLAMP TRIGGER SWITCH</p>
		<p>1EL090000-0009</p>	<p>START BUTTON</p>
		<p>1EL010000-0046</p>	<p>MAIN SWITCH</p>
		<p>2TU012410-0447</p>	<p>MOVABLE FENCE</p>

		<p>2TU012210-1751</p>	<p>CLAMP MOUNTING BRACKET</p>
		<p>3UA046030-0019</p>	<p>PNEUMATIC CLAMP</p>
		<p>1PN020000-0307</p>	<p>PISTON (DMC-A 50x280)</p>
		<p>3UA050030-0025</p>	<p>HYDROCONTROL UNIT</p>
		<p>1PN020000-0305</p>	<p>PISTON (DMC-A 32x95)</p>

	<p>3UA110030-0020</p>	<p>AIR CONDITIONER</p>
	<p>1PN010000-0012</p>	<p>SPRAY MIST VALVE</p>
	<p>1PN140000-0005</p>	<p>1/8-6 FITTING</p>
	<p>1EL070001-0005</p>	<p>MOTOR (4 kW)</p>
	<p>1SR070000-0032</p>	<p>MOTOR BELT</p>

		1SK010000-0089	SAW BLADE
		1SC140000-0006	HINGE
		3UA040030-0001	M12*60 HANDLE
		3UA040030-0023	M8*50 HANDLE

		3UA030030-0005	ANGLE LOCK PIN
		1PL040000-0069	GUARD GLASS

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1.GENERAL INFORMATION

1. Introduction

The user's manual given by the manufacturer contains necessary 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.

2. Service Information

In case of any technical problem please contact your nearest ATech dealer, or ATech head office.

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.

Average life of the saw is 10 years. In case of any technical issues or complaints please contact us in written:

DISTRIBUTOR

ATECH MACHINE, INC.

Tel 240-505-1967 Toll-Free: 1-855-ATECH-US

Fax 301-560-6627

E-mail info@ATechMachinery.com









Web ATechMachinery.com

To minimize documentation and for fast turnaround, please mention the following info when contacting us




- | | |
|--|--|
| <ul style="list-style-type: none">• Machine model | <ul style="list-style-type: none">• Voltage and frequency |
| <ul style="list-style-type: none">• Machine's serial number | <ul style="list-style-type: none">• Date of purchase |
| <ul style="list-style-type: none">• Description of the machine fault | <ul style="list-style-type: none">• Name of dealer where machine was purchased |
| <ul style="list-style-type: none">• Average daily operation period | |

2. SAFETY

1. Safety Symbols and Their Meanings

	Read the user guide		Ensure safe working position, always keep your balance.
	Wear ear protectors		Elektrical excitation
	Wear safety goggles		Don't place your hands between parts in motion..
	If the power cable should be damaged during operation, don't touch and unplug it. Never use damaged power cables.		High temperature warning



	During saw blade change operations, use protective gloves		Keep your fingers clear of the movable parts of the glide arm.
	The above symbol DANGER WARNING , warns you against specific dangers, and you have definitely to read them..		The IMPORTANT symbol above is one telling to apply special care and to be careful at carrying out the specified operation

1. Accidents Prevention

1. Our machines are manufactured in accordance with CE, UL and CSA safety directives, which cover national and international safety directives.
2. It is the task of the employer to warn his staff against accident risks, to train them on prevention of accidents, to provide for necessary safety equipment and devices for the operator's safety.
3. It is the task of the employer to warn his staff against accident risks, to train them on prevention of accidents, to provide for necessary safety equipment and devices for the operator's safety.
4. Machine should be operated only by staff members, who have read and understood the contents of this manual.

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

2. 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 has to be taken regarding the inlet and outlet sockets
2. Don't overload machines for drilling and cutting. Your machine will operate more safely with power supply in accordance with the stipulated values.
3. Use correct illumination for the safety of the operator. (ISO 8995-89 Standard The lighting of indoor work system)
4. Use correct illumination for the safety of the operator. (ISO 8995-89 Standard The lighting of indoor work system)
5. Don't use any materials other than those recommended by the manufacturer for cutting operations on the machine.
6. Ensure that the work piece is clamped appropriately by the machine's clamp or vice
7. Ensure safe working position, always keep your balance.

8. 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.
9. Unplug first, before conducting and maintenance works.
10. Ensure that any keys or adjustment tools have been removed before operating the machine..
11. If you are required to operate the machine outside, use only appropriate extension cables.
12. Repairs should be carried out by qualified technicians only. Otherwise, accidents may occur.
13. 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).
14. Don't use machines with improper functioning buttons and switches
15. Don't keep flammable, combustive liquids and materials next to the machine and electric connections.

3. MACHINE'S DESCRIPTION

Mitre cutting machines designed for straight and angle cutting of PVC and Aluminum profiles.

- Two hand control system application is available in terms of employee safety.
- Positive locating pin lock at 0-15°- 22, 5°- 30°- 45°- 60° and 75° intermediate angles set with a table lock.
- Hydro-pneumatic saw blade feed with variable speed control to suit different profiles & materials
- Saw complies with CE Safety Directives

<u>STANDARD ACCESSORIES</u>	<u>OPTIONAL ACCESSORIES</u>
1SK010000-0089 700 mm Circular Saw	Additional 700 mm saw blade
Air Gun	
User's manual	
Spray mist lubrication system	
3UA970030-0003 Horizontal pneumatic clamps	

4. TRANSPORT OF THE MACHINE



1.The transport should be done by qualified personnel only.

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

3. Unless customer requests the contrary, the machine will be delivered with wooden packaging.

4. Movable parts on the machine should be fixed before carrying out the transport.

5. The machine size and weight measurements, given the technical specification sheet.

5. INSTALLATION OF THE MACHINE

1.Preparation

1. The machine size and weight measurements, given the technical specification sheet. The ground, where the machine will be placed, should be even, solid enough to bear the weight of the machine
2. The machine should be located approx. 100 cm away from the rear wall
3. You can level the machine with adjustable feet (FIGURE 1 NO.1-2) in the bottom part.
4. Connect MKN 301 (optional) conveyor (FIGURE 1 NO.59) to the saw to the right side surface of the machine as seen in the FIGURE 1 by using the screws on the machine. Provide the conveyor bobbins and machine top surface to be the same parallelism by using a sensitive and calibrated water gauge.
5. Side protective covers (FIGURE 1 NO.55/56) are sent as demounted. Mount the covers as shown in Figure 1.
6. Chip collector manifolds (FIGURE 2 NO.15) are shipped in disassembled form. Install them as shown in Figure 2.
7. To use manifolds, the absorption flow rate of air for dry chips has to be considered as min. 20m/sec. 28 m/sec absorption flow rate of air wet chips ($\geq 18\%$ humidity) can be decided to operate the manifolds.

2. Connecting to Power Source

1. The Electrical connection must be made by a licensed electrician
2. The power outlet socket on the machine should be available.
3. Plug the machine to a grounded socket.



4. Main voltage of the machine is 220V / 440 V 60 Hz.

5. Check the power source voltage. It has to be in accordance with the values stipulated on the machine's type label.
6. After electrical connection is made, machine must be operated in idle running and it must be controlled whether rotation directions of cutting tools are correct or not and if the rotation direction is wrong, appropriate connection must be made.

6. MACHINE SAFETY INFORMATION

1. Lifting, installation, electric maintenance of the machine should be carried out by qualified personnel only.
2. Routine maintenance and scheduled maintenance should be carried out by qualified personnel after unplugging the machine first.
3. Ensure that the machine has been cleaned, tested and maintained before starting to operate it.
4. Check the safety devices, power cable and moving parts regularly. Don't operate the machine before having replaced defective safety devices or faulty parts.
5. Never replace the milling cutters before unplugging first.



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

7. Do not work on the machine by removing the protective parts



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

1. Preparation

1. Degrease and dry the machine table. Especially ensure that the holding grips and handles are clean and dry.
2. Clean all surfaces of the machine from chip and foreign particles. Use eye glasses for protection.
3. This machine can process on products manufactured from rigid plastic and aluminum materials that don't include iron alloy.
4. Control whether cutting tool (FIGURE 3 NO.34-26) is inserted safely to their places.
5. Control cutting tools against corrosion, distortion and fractions. If cutting tools are damaged, change them.
6. Cutting tool must process on the part after machine is operated and cycled.
7. Definitely check the direction of rotation of the saw blade.



8. **Do not process the profile before clamping the work piece properly.**



9. While making cutting on the machine, be careful about clamps' being out of the cutting area of the saw.

10. Adjust the reducer speed adjustment screw (FIGURE 2 NO.7) by rotating in the direction of clockwise until providing the desired progress if the saw group cutting progress is fast. Make the opposite of the above action if the saw group cutting progress is slow.

2. Operation

1. Switch the system start switch to “1” (FIGURE 1 NO.17-3)
2. Open the top guard (FIGURE 1 NO.51) by pressing the button (FIGURE 1 NO. 17-4-1) on the control panel. The top guard operates pneumatically.
3. It is possible to make a straight or miter cuts on this machine. 0-15 - 22.5 - 30 - 45 -60 and 75 degrees can be adjusted with the help of a safety catch (FIGURE 2 NO.27), and the other interim degrees with the help of a special clamping screw (FIGURE 2 NO.31). The safety catch is not seated in the slot in interim degrees. Tighten the clamping screw after turning the turntable (FIGURE 2 NO. 14) to a special degree you desire.
4. In order to make a miter cut pull the rod of the safety catch (FIGURE 2 NO.27) out of the slot of the safety catch. Simultaneously move the turntable (FIGURE 2 NO.34) with your other hand to a degree you want with the help of plastic handle (FIGURE 2 NO.34-1). You can read the angle values with the help of a degree reader (FIGURE 2 NO. 28) on the table (FIGURE 2 NO.26).
5. In order to provide the right or left movement of the movable set square (FIGURE 2 NO.37) loosen the fixing pipe (FIGURE 2 No.36) by turning half-round. Towards the right or left direction of the movable set square after completing the movement, provide the parallelism of the movable set square against each other in both of the set squares with the help of the setscrews on the fixed set square (FIGURE 2 NO. 35). After finishing all of the settings fix the set squares by tightening the fixing pipes.

IMPORTANT

Distance between set screws can not be less than table channel's dimension. (Dimension of TABLE CHANNEL is 8 mm.)

6. Place the PVC or aluminum profile that you will work with on the table (FIGURE 2 NO.26). Using the clamp trigger switch (FIGURE 1 NO.17-4-2) located on the control Panel (FIGURE 1 NO.17) clamp the material with the clamps (FIGURE 2 NO. 46/50) located on the set square.
7. The clamps operate pneumatically at ACK 700 models. You can adjust them backward & forward and up and down (FIGURE 2, NO.48/49). Control of pneumatic clamps is made by buttons (FIGURE 1 NO.17-4-2) on the panel (FIGURE 1 NO.17).
8. Adjust the clamping pressure setting of pneumatic piston with the switch (FIGURE 1, NO.17-6) on the control panel.
9. Close the top top guard (FIGURE 1 NO. 51) using the button (FIGURE 1 NO. 17-4-1) on the control panel. Cutting operation can not be done on the machine without closing the protection cover and the clamp on the grounds of safety.
10. Let the saw blade rotate by pressing the Motor Start button (FIGURE 1 NO.17-5) on the control panel.
11. Provide the uplift of the saw by pressing on the double hand safety buttons (FIGURE 1 NO. 17-1) simultaneously. Continue to press the buttons until the part is cut off.
12. Release the buttons after the cutting process is completed. The saw blade will move down to its start position.
13. In particular, when aluminum material is cut through, it is recommended to use pneumatic spray mist lubrication system. You can adjust the flow rate of the coolant by using the spray valve (FIGURE 3 NO.34-25).
14. Open the top guard (FIGURE 1 NO. 51)
15. Take the part out after releasing the pneumatic clamps.

16. Use the motor stop button to stop the saw rotation.



NOTE: Remove the pressure on the cutting buttons in a possible hazard, or press the emergency stop button. (FIGURE 1 NO.17-2)

17. Switch the system start switch to “0” (FIGURE 1 NO.17-3)

8. MAINTENANCE, SERVICE AND REPAIR

1. Maintenance

1. Cut the electric and pneumatic power connections of the machine.
2. Clean all surfaces of the machine from burs, chips and foreign substances. If the machine will not be used for a long time, lubricate unpainted parts with oil that prevents rusting.
3. When cleaning the machine, do not use materials that may damage the paint.
4. Check the saw blade for corrosion, distortion and fractions. If saw blade is damaged, replace it.
5. Before using the saw blade, operate the saw in idle position, and check whether it is installed correctly, it has to rotate without wobbling and it is inserted appropriately. Do not use saw blade that are damaged or lost its functionality.
6. If the saw teeth got blunt, replace the saw blade or have it sharpened.
7. Sharpen with proper sharpening machines by taking the angular value of the saw into consideration.

2. Changing the saw blade

1. Power off (unplug) the saw.
2. The machine on the front panel (FIGURE 1 NO.17) as a complete open door unlocking. cover at the rear of the machine (FIGURE 2 No.1-3) Open by removing the screws.



NOTE : Make sure not to damage the components inside the cabinet.

3. Remove the cover of the housing by removing the four Butterfly nuts located on the saw protective enclosure (FIGURE 3 NO.34-22). (FIGURE 3)
4. Remove the M10 screw (FIGURE 3 NO.34-22) with the help of an 8 mm Allen wrench. When removing the bolt hold saw shaft (FIGURE 4 NO.34-5) from the other end with a 19 mm wrench.
5. Remove the string (FIGURE 3 NO.34-28) and saw coupling (FIGURE 3 NO.34-27) respectively.
6. Take out the saw blade (FIGURE 3 NO.34-26) carefully and bring it to the service door at back side of the machine.
7. Install the new saw blade onto the shaft ensuring the correct rotation direction.
8. Install the guard group parts applying the reverse order as described above.
9. It is necessary to sharpen / replace the saw blade in certain intervals depending on the cutting material. If the cut material leaves burr after the cutting operation or if the saw blade is strained, it needs to be sharpened / replaced.

10. During saw blade change operations, use protective gloves.



11. Saw must be selected according to Standard DIN EN 847-1.

12. A saw blade rotating in reverse direction, causes danger both for the operator and the equipment. The teeth of the saw blade would be damaged and even broken.

3. Changing the belt

1. Cut the electric connection of the machine.
2. Dismantle the saw blade by applying the saw replacement process (Clause 8.2).
3. After taking the saw blade out, put it somewhere in the casing of the machine or take it out by removing saw housing connection screws (FIGURE 3 NO.34-22).
4. Take out the connection screws (FIGURE 4 NO. 34-11) of the belt housing (FIGURE 4 NO.34-10) by removing them.
5. Loosen the motor connection bolts (FIGURE 4 NO.34-12) with the aid of 6 mm allen switch.

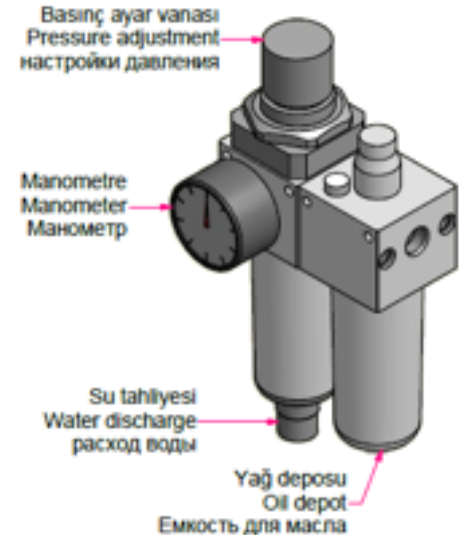
6. Provide the slackening of the belt (FIGURE 4 NO. 34-9) by pushing the Motor (FIGURE 4 NO. 34-6) upwards.
7. Replace the existing belt with the new one. Be careful when fixing the belt to the channels of balancing wheel (FIGURE 4 NO.34-7/34-5) of the channels of the belt.
8. After installing the new belt in its seat, adjust the tension of the belt by turning belt tensioning part (FIGURE 4 NO. 34-8) with the help of 8 mm Allen wrench. After you set to the appropriate tension, tighten the motor connection bolts (FIGURE 4 NO. 34-12) with your unused hand without leaving the part.
9. Fix the removed parts by following the reverse sequence that your removed them before.

4. Angular and run out adjustment control of saw blade and set square

1. Cut the electric connection of the machine.
2. Control the run out of the saw blade with eyes. If possible use a dial gage.
3. If there is any problem in the inclined cut, control the saw's 90 degrees orthogonal to the set square with the aid of the set-square. If it is not proper, loosen the stay bolt at the top which tightens the spring (FIGURE 2 NO.63) Have the pin located to its place by turning the spring in way that it can provide it to be proper by setting it to the 90 degrees. Tighten the screw at the top again which fastens the spring.

5. Adjust the air pressure (pneumatic systems)

1. Pull up pressure adjustment valve. Set adjustment valve to the desired value on manometer by turning it clockwise or counter clockwise. Then lock the valve by pressing it down.
2. Set the air pressure between 6 and 8 BAR. If air pressure drops below the stated values, accessories operating with pneumatic power do not work.
3. Conditioner unit accumulates the water in the air in the collection container so that it won't damage pneumatic components. At the end of the working day, empty the accumulated water by opening water discharge valve under the collection container.
4. In order to put oil to the oil tank, remove the reservoir by turning. Oils recommended by the manufacturer are; TELLUS C10 / BP ENERGOL HLP 10 / MOBIL DTE LIGHT / PETROL OFİSİ SPINDURA 10.



9. NOISE EMISSION VALUES

Material	Aluminum	LwA	98 dB (Measured Value)
Length	1220 mm (48")	LpA	93 dB (Average Sound Pressure Value)
Width	70 mm (3")	K	2 dB (Tolerance in the Measurements)
Height	20 mm (0.8")		

The values stipulated above represent the emission level, and do not necessarily represent safe working level. There is a relation between emission and exposure levels, however, this cannot be used as a reliable relation to determine whether advanced precautions are necessary. The factors, which affect the actual level of noise exposure, are among others physical properties of the building where the saw is operated, possible other operations in proximity to the saw, number of machines being used, in other words, other sources of noise. Furthermore, allowed noise exposure levels may vary from country to country. This information serves for the saw operator to determine and evaluate risks accordingly.

Saw Specifications		Saw Specifications	
Rotation of Saw Blade	2000 rpm	Saw Blade Size	700 mm (28")
Motor Power	4 kW	Saw Blade Thickness	5 mm
Nominal Voltage	400 V	Blade Shaft Thickness	4 mm
		Blade Progress Speed	65. / sec. (Aluminum material)

10.TROUBLESHOOTING GUIDE

Here are some recommendations for solving urgent problems. If the trouble cannot be solved, or if you have a problem other than those described hereunder, please contact our technical service or your nearest dealer.

TROUBLE	CAUSES	REMEDY
Low surface quality (at aluminum and similar materials) : Rough surface,	Not cooling the saw blade surfaces	Lubricating the saw blade cutting surfaces, Using of cooling liquid
Large chip, Not homogenous surface, Saw blade traces visible	Using of damaged or blunt saw blade	Check the saw blade teeth. Replace if necessary.
	Saw blade moves to 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 pistons 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, the power cable or the connection at the panel is wrong.	Let the electric connections carry out by a qualified electrician.

11. WARRANTY CONDITIONS

ATech guarantees that all machines have been tested and are in conformity with international standards.

The warranty is valid for 24 months from the shipping date and does not cover electrical parts of the machine.

During this period:

- Any repair and replacement effected at our workshop is completely free of charge (only transport costs are at customer's charge).
- For repair and replacement effected by our technician at the customer's site, we will invoice only the travel and lodging costs for our technician.

The guarantee does not cover damages caused by:

- not following of the rules indicated in the manual instruction book
- wrong voltage supplied to the saw
- improper use or use not in accordance with what the Machine has been designed for
- use of non original tooling
- programming errors
- lack of cleaning and of ordinary maintenance by the customer

- transport or displacement (even inside the workshop)

- natural events (lightnings, fires, floods)

The warranty does not cover, in any case, damages caused by the malfunction of the Machine