



APIS-06 H

**HYDRAULIC CORNER CRIMPING MACHINE
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. Distributor

ATech Machine, Inc. , 8539 Ziggy Lane, Gaithersburg, MD 20877 - USA

ATechMachinery.com

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*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

Aluminum profile corner crimping machine designed for corner joining of aluminum profiles.

Features

- Aluminum profiles are crimped at 90° to make joining operations
- Equipments are pneumatic, knife movements are hydraulics.
- The height of the pressing piles, the advance of the hydraulic cylinders and the profile restraint can be adjusted in millimeters.
- Central centering and dorsiflexion returns to the starting point at the end of the operation.
- Powerful hydraulic pump (5000 kgx2).
- Dual foot pedal for punching and pneumatic vice.
- To protect the profile surface, the profile friction surfaces are made of Polyamid plate.

STANDARD ACCESSORIES

- 2 conveyors
- 2 sherds; 3 mm, 5 mm and 7 mm crimping knives

OPTIONAL ACCESSORIES

- Customized crimping knife set

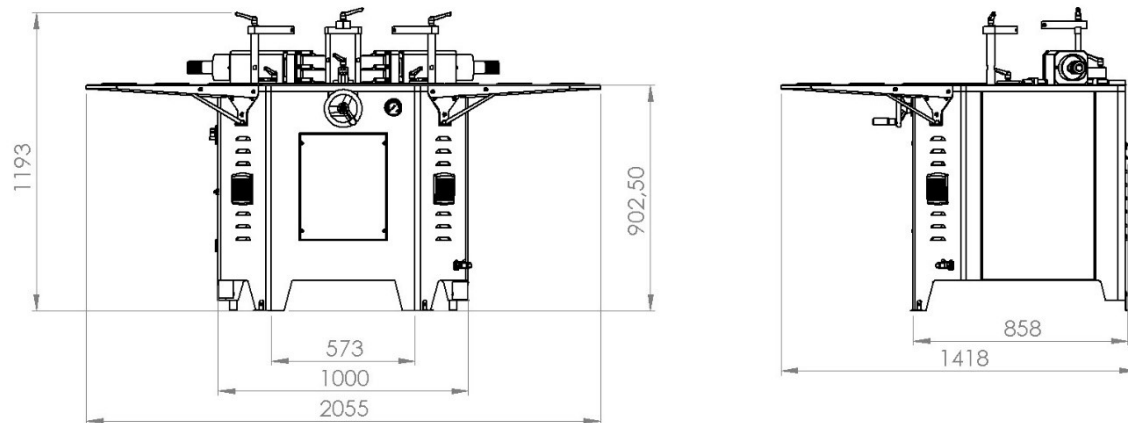
Please mention the below mentioned data in all your correspondence regarding the machine with the manufacturer and/or your ATECH dealer.

- 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

								
Apis ALU	1,6W 50/60Hz	400V AC 3P PE	BAR AIR CONS. 6/8 Bar Max: 100 Bar	5000 x 2 kg	Max: h:130mm	W:95 cm L:130 cm H: 115 cm	540	480

2.3. Dimensions



2.4. Parts List and Technical Drawings



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 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



- 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 damaged 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 accordance CE with the stipulated values.
- 3.3.4. Don't place your hands between parts in motion.
- 3.3.5. Use protective 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 manufacturer 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 may 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 manufacturer or dealer).
- 3.3.18. Don't use machines with improperly functioning buttons and switches.
- 3.3.19. Don't keep flammable, combustible 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.

5. INSTALLATION OF YOUR MACHINE

The position of the machine should be at least 40 cm from the rear wall. There is an electrical power connector on the back of the machine.

5.1. Preparation

- 5.1.1. The external dimensions of the machine are indicated on the technical specifications page. The surface on which the machine is to be placed must be a hard, smooth surface that can bear the weight of the machine.
- 5.1.2. In APIS aluminum corner press machines, all parts are presented ready for use by the manufacturer.

Do not make electrical connections without removing the bolts and stoplight connections used to detect moving systems before operating the machine.

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

- 5.2.1. The three-phase power cable socket has to be in accordance with the socket 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.

CAUTION!

Socket connections must be made by a licensed electrician.

6. MACHINE SAFETY DATA

- 6.1.1. Your machine operates with 400V ~ 3 Phase 50Hz. Let the electric installation of your machine carry out by a qualified electrician only.
- 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.
- 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 change the pressing knives without interrupting the electrical power connection.
- 6.1.7. Keep foreign materials away from the working area of the machine, keep away from the machine's moving parts.

CAUTION!

Don't use the machine for purposes other than it has been designed for (iron and iron alloys).

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

APIS aluminum corner crimpers are used in combination of products made from aluminum materials without iron alloy. The operator manually adjusts the knives according to the size of the material to be corner crimped.

7.1. Operation Of The Machine

- 7.1.1. The switch is opened by attaching the machine's prize.
- 7.1.2. The machine is brought to the ready position by pressing the start button.
- 7.1.3. The direction of rotation of the motor is controlled.
- 7.1.4. The material is based on the eccentric view and rear centerers and is pressed on the forward pedal. So the machine starts processing. First, the material centers, then the crimping process automatically continues.

NOTE : The pedal has to be kept pressed until the process is finished.

- 7.1.5. The machine is brought to the starting position by pressing the reverse pedal.

NOTE : The reverse pedal must be kept pressed until it reaches the starting position.

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 button 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. 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

CAUTION!

Do not process unless, you are sure that the parts to be joined are tightened by the vices of the machine

The machine is equipped with vertical clamps. The clamping positions, either manual or pneumatic clamps, can be adjusted comfortably according to the material.

- At pneumatic clamps the clamp piston can be moved 55 mm.

IMPORTANT

The air pressure of the machine has to balance 6-8 Bar pressure. Don't operate the machine with an air pressure lower than 6 Bar.

8. MACHINE ADJUSTMENT ACCORDING TO PROCESSED PROFILES

Corner press punch angle adjustment is only set to 45° by the manufacturer. According to profile çeşidine, crushing is done.

- 8.1.1. Firstly, the crushing blades are adjusted according to the connection block which is put into the profile.
- 8.1.2. The crushing blades are made in height, thickness and back and forth, right-left settings according to profile.
- 8.1.3. Conveyor setting is done, balance is taken.
- 8.1.4. **The hydraulic must be at least 70 Bar, at most 95 Bar.**

9. MAINTENANCE SERVICE AND REPAIR

To achieve excellent results, the machine must be lubricated regularly and often with moving parts. Things to be done at the end of the work day and before starting work are as follows.

9.1. Periodic Checks And Starting To Work

- 9.1.1. It must be lubricated at certain times to prevent wear of all moving parts.
- 9.1.2. It is advisable to check the power cable regularly and change it if it is worn out.
- 9.1.3. Make sure the table and all parts are clean and dry. Clean the tray from the oil and dry it. Be especially sure of the cleanliness and installation of the gripper handles.
- 9.1.4. Check the air pressure system pressure. Set the air pressure around 6-8 bar if necessary.
- 9.1.5. Check the air pressure filters and the oil level in the conditioner. If you do not have enough oil, complete it.

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

9.2. Maintenance At The End Of The Working Day

- 9.2.1. Unplug the machine.

- 9.2.2. Remove all burr, chip and foreign materials from the machine surfaces. Use gloves to protect your hands from the sharp edges of the blade.
- 9.2.3. Don't use materials for cleaning the machine, which could damage its 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.

PROBLEMS	CAUSES	SOLUTION SUGGETIONS
Motor does not operate although the pedal is pressed.	1. Machine power supply is not connected. 2. Main Switch is at 0 position. 3. Emergency push button remains pressed. 4. Air connection is not made.	1. Check electrical cable connections. 2. Turn Main Switch position to I. 3. Check air connections.
Motor operates but pressing units do not.	1. Motor electrical connection failure. 2. Hydraulic oil pressure is very low.	1. Check the motor's electrical connections with a qualified electrician. 2. Adjust hydraulic oil pressure to 80 bars.
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.

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	3