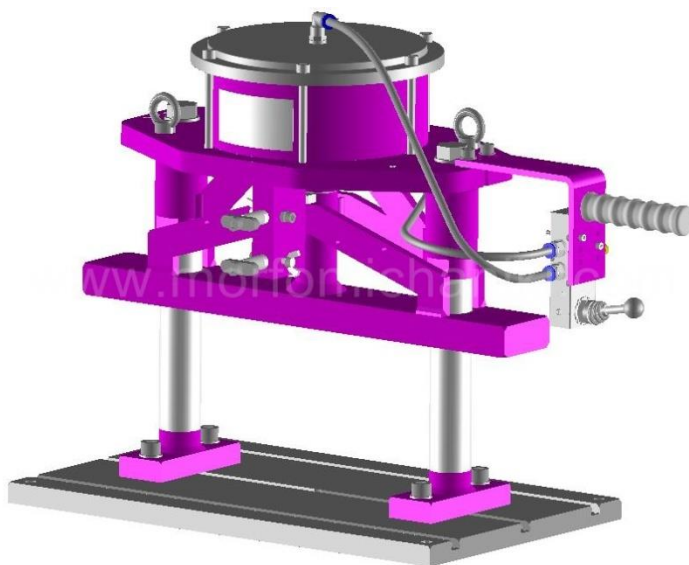


MORFOMICHANIKI

AIR PRESS MACHINE

USER'S MANUAL

Version 3.2022



Designed and manufactured by Morfomichaniki

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Editor: Loizos LOIZOU

INDEX

1.	GENERAL	4
	1.1 Description	4
	1.2 Pressing force	4
	1.3 Weight	4
	1.4 Size	5
	1.5 Machine identity	5
2.	SAFETY	6
	2.1 Label on the machine	6
	2.2 Label TA12 in the shop near the air press machine	6
	2.3 Label TA22 in the shop near the air press machine	7
3.	LOADING	8
	3.1 Transportation package loading	8
	3.2 Air press loading	8
4.	ASSEMBLY	10
	4.1 Positioning the air press machine on the table	10
	4.2 Pressured air connections	11
	4.3 Tool assembly	11
5.	MAINTENANCE	14
	5.1 Lubrication	14
	5.2 Cleaning	14
	5.3 Pressured air	15
	5.4 Damaged or failing tools	16
6.	SERVICE	17
	6.1 Authorized service points	17
	6.2 Service request	17
7.	OPERATION	18
	7.1 Applications	18
	7.2 Profile handling	18
	7.3 Sample cuts	19
8.	LIMITED GUARANTEE	19
	7.1 Conditions (totally 5 conditions)	19

9. **ORDERS**20
9.1 By catalogue 20
9.2 By customer's requirements 20

1. GENERAL

1.1 Description

MORFOMICHIKI air press machine is a registered industrial design (R) and generally is used for cuts (punching) on aluminum profiles and for other industrial purposes. The installed tools are customer's choice. Visit our web site for details about tools referring to the tool number that is located on each tool.

Please read carefully this manual and all labels on the machine before use. There is a big danger for amputation, other injuries or damages on the machine and the tools in case you do not follow the safety instructions.



1.2 Pressing force

At 6 bar 2 ton, at 9 bar 3 ton (1N=0.102Kg, 1ton=1000Kg)

1.3 Weight

Machine: 66Kg (without cutting tools)

Table: 16Kg

Wooden box: 19Kg (1030mm x 520mm x 620mm)

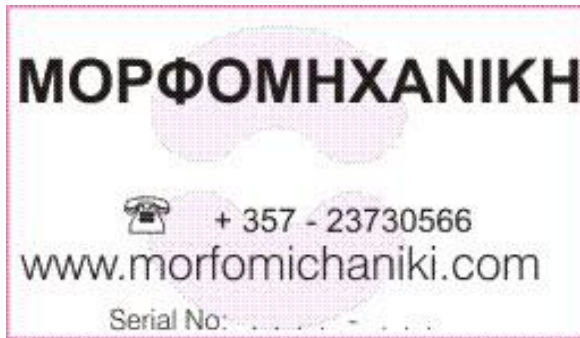
Cutting tools: 3Kg average (use this number only for rough calculation of a package weight).

1.4 Size

Machine: 500mm x 300mm x 470mm

Table: 480mm x 480mm x 900mm

1.5 Machine identity



The identity of the machine is determined by the Serial No. and it is shown on the front label of the machine.

Morfomichaniki keeps full data for each machine referring to the Serial No.

make it faster is not permitted. Such parts are the valve, the pipes between valve and machine, pneumatic fittings like connectors and air filters-silencers.

3. LOADING

3.1 Transportation package loading

Box hanged on two belts 3m each.



Forklift also can be used



3.2 Air press loading

Unscrew the cover of the wooden box and take out the table first.



Unscrew the machine from the box and then hang the machine on the two hangers.

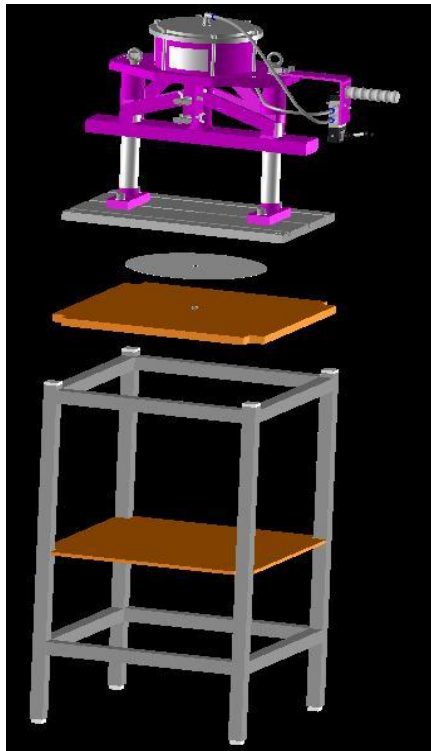


Disconnect the pressured air from the machine before doing any transportation or positioning-setup actions or any movement of the machine in the shop.

4. ASSEMBLY

4.1 Positioning the air press machine on the table

Never touch tools when you move the machine. Touching the tools could cause an injury or moving of the tools. Focus at the sign on thick wood “This side down”



The machine should be able to rotate on the table and axis of the rotation should be a pin (Head of Allen Cap Screw M8) in the center of the wood. Note that the table should be ordered as accessory. The size on top must be 48cmx48cm otherwise so profiles will touch it.

4.2 Pressured air connections

DO NOT connect pressured air on the new machine you receive before Morfomichaniki's engineering inspection using Whatsapp or similar applications.

Use auto coupling [RECTUS TYPE 26](#) to connect to the machine. In case you want to use other system than RECTUS it must be similar to RECTUS TYPE 26 ([auto coupling](#)). If you do not use auto coupling it will not be able to assembly tools on the machine and also it will not be able to run all the maintenance actions.



Air pressure is better being from 6bar to 8.5bar. NEVER use air pressure higher than 10 bars.

When air is connected to the machine, the machine it is up (open).

All air parts' connections on the machine are ¼ BSP.

4.3 Tool assembly

This chapter is only for people authorized by Morfomichaniki. Authorization is given only for one tool number and it is not valid for other tool numbers.

Refer to the specific tool instructions to assembly it on the machine.

Technical Tip 1: Blow air with air-pistol in order to move the press a little up or a little down.



Click on the photo to watch the video

Technical Tip 2: When the press is down and you have just installed a tool and you want to put air into the machine, keep the valve handle down. After the air is in the machine move the handle slowly-slowly up. During this upward movement you will feel if the assembled tool is correctly centered. In case that the male is touching the female the tool is not correctly centered.







Technical Tip 3: Most tools can be checked by eye if they are correctly centered.

Technical Tip 4: For tightening screws the torque must be 46Nm for M8 (In case screws are supplied by Morfomichaniki or in other case they should conform to DIN 912/quality 12.9). Practically you can have the same torque by using long (180mm) "ALEN key 6mm" and tighten until the key bends.

5. MAINTENANCE

5.1 Lubrication

Wurth (Cut & Cool Cutting Oil)	Brunox	WD40	KENT WHITE GREASE III
			
Cutting fluid	Cutting fluid and short time preservation		Long time preservation
Every 10 cuts on the used tool	Every Week		On brand new machine and Every 3 months and for transportation
On the cutting parts of the used tool	On all parts of all the tools		On all parts of all the tools

We expect you to give us information about other lubricants you use in order to evaluate them. [View video](#)

5.2 Cleaning

Clean the machine using pressured air. Use glasses to

protect your eyes.



In case you have to use hands take out the air before cleaning.

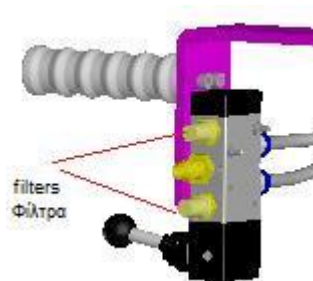
Cover the machine after finishing production.



5.3 Pressured air

Keep air dry

Change the air filters-silencers on valves in case the machine moves very slowly.



The installation of air tubes diameter 8mm is shown in the total icon of the machine in the front page of this manual.

5.4 Damaged or failing tools

Contact MORFOMICANIKI if there is anything that makes you feel that any tool is not working properly. Contact also MORFOMICANIKI when one of the following appears:

1. Broken tool
2. Not clean cut
3. The profile cannot be positioned easily
4. The profile cannot be removed easily
5. The tool has moved
6. The surface of profile is being scratched

It is better if you contact Morfomichaniki as soon as possible, because usually the problem becomes bigger gradually and the biggest damage for the tool is the breakage.

6. SERVICE

6.1 Authorized service points

1. Morfomichaniki Ltd

8 Kavallou street

5350 Frenaros (Industrial Area)

Cyprus

Tel: +357-23730566

Mob: +357-99658356

Email: louis@morfomichaniki.com

Website: www.morfomichaniki.com

Clean the machine with air before you transport it to the service point.

Bring, at the service point, profiles with different colors in order to test the repaired tools.

6.2 Service request

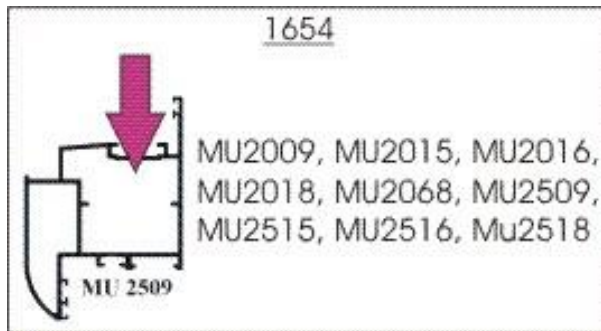
Service is offered using Whatsapp or similar applications

Refer to press machine and tool number in order to determine a tool.

7. OPERATION

7.1 Applications

Follow the label's instructions placed on the machine for each tool application. Each label shows the number of the tool, the number of the profile, the direction of the profile, the motion and the position of the cutting tool and the numbers of other suitable profiles.



For more information visit MORFOMICANIKI'S website.

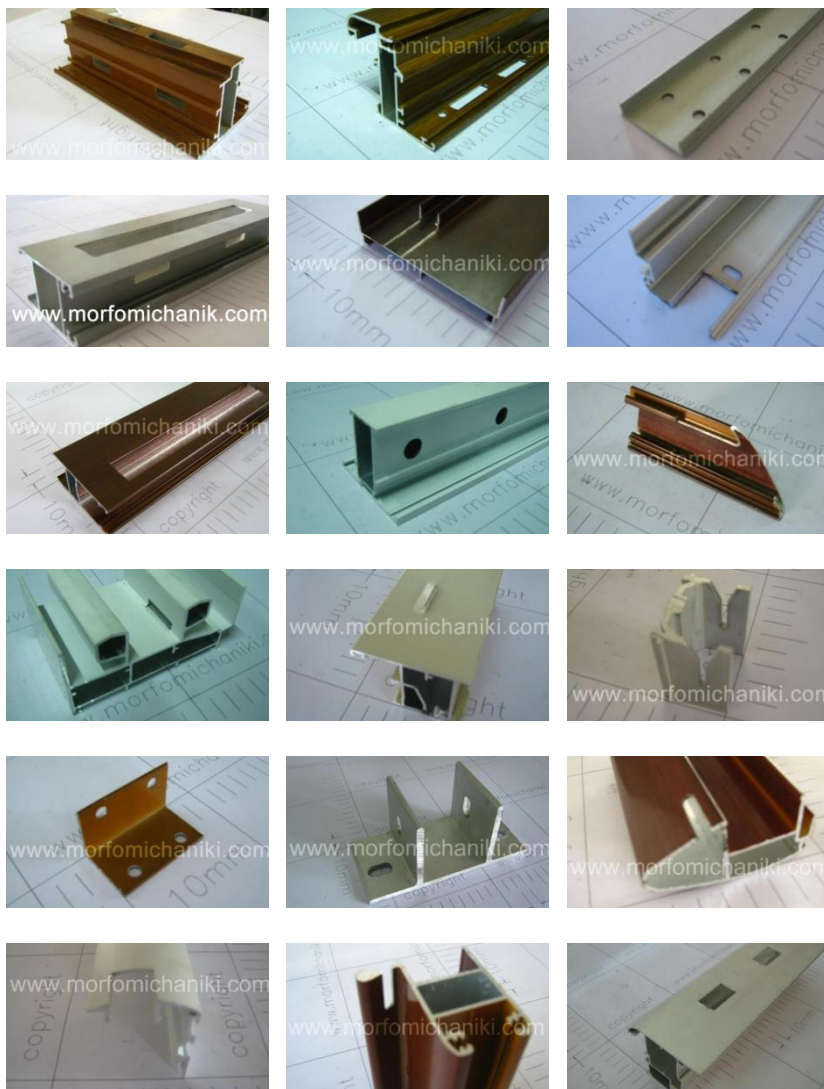
7.2 Profile handling

Use a stand for long profiles



Only one profile is possible to be punched per stroke.

7.3 Sample cuts



We can provide tools for any [kinds of punching](#) .

8. LIMITED GUARANTEE

8.1 Conditions (totally 5 conditions)

1. Guarantee for 1 year only.
2. Guarantee by prior sending to Morfomichaniki or to the authorized dealer the profile where the problem has occurred. This profile must be sent on customers cost.
3. There is no guarantee for tools that were modified by not authorized person.
4. There is no guarantee for tools or for the machine that are affected by tools modified by not authorized person.
5. Guarantee is void if any label on the machine is removed.
6. The user must read this manual before using the machine and sign in the following table.

User	Name	Signature
1		
2		
3		
4		
5		

9. ORDERS

9.1 By Catalogue

Ask for the catalogue of tools for the series of profiles you are working or find the catalogue in Morfomichaniki's website.

9.2 By Customer's requirements

We can develop new tools according to customer's requirements.

In order to make our offer for these we need some or all of the following information:

1. The number of the profile, the series and the manufacturer-extruder of the profile.
2. The number of the part that will be fitted in the cut and the manufacturer of the part.
3. The description (title) for the job (cut) on the profile.
4. A photo would help us to be faster.
5. Sometimes a hand sketch is enough as technical information. You can then make a photo of this sketch or scan it in order to send it to Morfomichaniki.
6. Piece of scrap profile with cut. On the profile should have written the number of the profile and the series.
7. Additional pieces of scrap profile, length 540mm each for test on the punching tool. The quantity of these

pieces should be available for 5-6 tests according to the length of the cut. Each piece should be from different color.

8. The part for assembling in the cut.
9. All the profile pieces should be prepared on saw machine in the same way as these would be used in the production.
10. In case you created your own profiles please provide us also with there PDF drawing file at the beginning of our communication. After a first step study of your profiles you will be asked to provide us with the DXF or DWG file of some drawings.