

EMBLEM EASY Airpress Premium Mobile 2 pneumatic automatic eyepress



pneumatic machine to set eyelets and washers

WARNING

DATAPLOT DECLINES ANY LIABILITY ABOUT THE INCORRECT USE OR MISUNDER-STUNDING ABOUT THIS OPERATING MANUAL.

Version 1.0

Index

1. Introduction	3
1.1 Introduction	3
1.2 Machineidentification and "CE" marking	3
2 Technical data.	4
2.1 Machine specifications and operation.	4
2.2 Main Technical Data	5
3 Installation	6
3.1 Installation poition requirement	6
3.2 Pneumatic installation	6
3.3 Transport	6
3.4 Unloading and levelling	/ 7
3.6 Learning instructions	7
4 Machine operation	9
4.1 Machine description	9
4.2 Checking the machine before starting	9
4.3 Eyelet setting	10
4.4 Other Machine Applications	11
5 Ajustments	11
5.1 Warnings about the adjustments	11
5.2 Dies changing (Alwaysfor same dimension)	11
5.3 Laser Pointer Adjustments	15
5.4 Frecoming	10
6 Mainteinance	17
7 Failures	18
71 Troubleshooting	18
7.1 houseshooling	10
8 Safety	19
8.2 Safety devices	19
9 Annex	21
9.1 Spare Part Listing	21
9.2 Supplied Tooling	21
9.3 Pneumatic Drawing	21
9.4 Electrical Drawing 9.5 Declaration of conformity "CE"	22
7.5 Declaration of comonning CL	23

1. Introduction

1.1 Introduction

This Easy Airpress Premium Mobile 2 has been designed to set eyelets (grommets) and washers, making in just one operation the feeding of the eyelet and washer, cutting and setting. This unit has been specially manufactured to set EMBLEM eyelets.

The machine has been designed to work on PVC banners, corrugated PP sheets (Coroplast©, Akyprint©), cardboard, HDPE banners. This unit is not suitable to work on fabrics as it will create wrinkles on the material as it is not possible to make cutting adjustments on the tooling.

The eyelet size for this press is Ø 12 or Ø 16 mm (each size requires a different machine).

WARNINGS: Lack of knowledge about the machine usually will lead operator to elemental doubts about its operation.

Please read carefully this operating manual to safety operate the machine and to optimize machine's capability.

1.2 Machine identification and "CE" marking

Each machine has a data plate on the side, made on aluminum. The following specifications are on it:

- Manufacturer's name and data.
- Model and serial number.
- Maximum air pressure (in bars).
- "CE" mark.
- Weight.



2 Technical Data.

2.1 Machine specifications and operation.

The machine is mounted on a stainless steel platform with wheels on the sides and ball bearings in the center, wheels have breaking system. It has been designed to set fully automatic eyelets (grommets) and washers, only eyelets or is possible just to punch holes on the material.

The machine has a main head where all the parts are located (fixed and moving ones), such as pneumatic cylinder, setting dies, safety devices, deposits, eyelets and washers raceways, electronic controls ...

Inside the blue cover are the pneumatic and electronic controls and the pneumatic cylinder that moves the machine. On right hand side is the laser pointer for accurate setting and the ON / OFF switch and on the left the pneumatic connection.

The machine is delivered on wheels to work on ground level or over a table. If customer needs to work on a fixed position, the breaks of the wheels should be on for safety reasons.

Once the machine has been placed on its permanent location and without fitting the air hosepipe into the connection, verify that it has not suffered any blow or breakage while being transported and it has not any loose parts.

The machine does not have adjustments in terms of setting pressure or cutting pressure.

The operation of the machine is very simple (see Fig. 1,2,3):



As seen on Fig. 1, eyelets are on the deposit (A) and washers on the deposit (C). Both have 220 V motor (as standard, possible 110v as well). When turning, eyelets and washers come down through the raceways (B and D) towards the setting area (J) where setting dies are located to make cutting and closing of the eyelet.

- 1. Before we make any action, the eyelet and the washer are already in place ready to be set.
- 2. When the setting button or foot pedal (F) is pressed the setting cycle starts.
- 3. If engines are not already turning, they will do it.
- 4. The axle of the main pneumatic cylinder descends.
- 5. Attached to its lower part there is the top setting die with a puncher that goes through the eyelet pushing it downwards. At the same time the eyelet raceway will slide to the left to allow top die to come down.
- 6. Puncher will cut the material making a hole and as an effect of the pressure that the top die does on the bottom one, it will make the eyelet to roll and close.
- 7. All parts will return to its starting position leaving the machine ready for another cycle

Fig. 1, 2 3:

(A)	Eyelet deposit.
(B)	Eyelet raceway.
(C)	Washer deposit.
(D)	Washer raceway.
(E)	Acrylic safety protection.
(F)	Foot pedal (also possible setting button).
(G)	ON/OFF switch.
(H)	Laser pointer.
(I)	Pneumatic connection.
(J)	Setting area.

Important Notice

This machine is a pneumatic press, so in order to run any adjustment or maintenance on it, the pneumatic connection must be always set to "CLOSE" (see Fig. 6, page 8).

ON / OFF switch on the right hand side only disconnects the engines and the laser pointer; it does not affect the pneumatic parts of the machines. If switch is on OFF position machine will work without laser pointer and engines.

2.2 Main Technical Data

The main technical data of this machine are:

L x W x H	74 cm x 68 cm x 40 cm.	
Weight	58 kg	
Air pressure	6 bars / 87 psi.	

3 Installation

3.1 Installation poition requirement

The minimum space recommended must be sufficient to keep that safety space in all directions for the operator to work properly.

WARNING: Please note that both the electrical wire and the air hosepipe should never be completely stretched

3.2 Pneumatic installation

The machine has an air inlet value, type quick acting coupler (ISO 6150-B standard) \emptyset 8 mm, located on the left hand side of the machine (I). **During maintenance operations or adjustments must be set to CLOSE position (see Fig. 6, page 8)**.



Fig 4

For an optimal operation, the supply of compressed air should be 6 Kg /cm2. It is important that the pressure doesn't drop after one of two settings as the machine might not have enough power to cut and close the eyelet. If this happens you will require a bigger compressor with more output (liters/minute).

We recommend that the flexible air hosepipe from the compressor or pneumatic installation comes from the top of the building to avoid operator's injuries or damages on the equipment.

3.3 Transport

Always unload the crate with a forklift, securing the load with slings on the sides. To transport the machine to its permanent location, the following precautions should be taken in account:

- Never stand beneath the wood crate.
- Use protective gloves.
- Avoid balancing the machine.
- Never overturned the machine.
- Lift or move the load gently.
- Do not make sudden movements.
- Always move the machine in vertical position.

The machine is delivered with appropriate packaging to avoid shocks and frictions during transport.

In the event that for some reason it is necessary to transport again the machine after its installation and the customer does not have the original packaging, we advice to use a reinforced package made of wood.

3.4 Unloading and levelling

The machine is delivered fixed to the wooden crate secured with screws on both sides.

Please follow these steps:

- Open the wooden crate.
- Remove the protective film.
- Loosen the 4 screws on both sides that tighten the machine to the base of the crate.
- Move the machine to its location with a hand pallet truck.



If the machine will work on a bench, it must be strong enough and leveled. Before any operation with the equipment, the four breaks on the wheels must be on.

3.5 Lighting conditions

A safe operation and servicing of the machine requires a minimum lighting of 300 lux.

3.6 Learning instructions

Please read carefully these instructions before starting:

- Before connecting the machine to the power supply, compressor or to customer's pneumatic installation, it should be place on its permanent location.
- The cleaning, handling or replacement of parts should always be made with the air inlet valve shut and the power off.
- Do not remove from the machine the safety devices, stickers or warning sings that point out dangerous areas. In case of withdrawal by force majeure, please remember to place them back before using the machine again.
- The machine has an air inlet valve "I" (fig. 4) to manually open and close the air supply to the machine; When the machine is not in use, it should be shut (see fig. 6) to avoid accidents when use by a third party. We also suggest disconnecting the hosepipe from the compressor/air supply for safety reasons.
- The machine has an ON/OFF switch (G), (see Fig. 2). When the machine is not in use, it should be on OFF position, (no lighting on the switch) to avoid accidents when use by a third party. We also suggest unplugging the electrical cord from the socket for safety reasons.

The dangerous area of the machine is the cutting and setting (J) area that is protected by two acrylic shields (front and back) and the stainless steel plate. Never access this area with the air inlet valve on "OPEN" and the switch on "ON" position.



Operator should pay attention to the position of the air inlet valve (I) (See Fig 4) located on the left hand side of the machine. When the valve changes its position from open to close, the compressed air on the internal circuit of the machine is expelled, preventing any unexpected action from the pneumatic cylinder if by accident the pedal is pressed.

CLOSE position



Fig. 6

OPEN position.



Fig. 7

Please note on the pictures that when valve is on CLOSE position pressure is on 0 bar, and when is on OPEN pressure should be on 6 bars, see yellow circle.

4 Machine operation

4.1 Machine description

This machine has been designed to set eyelets (grommets) with washers, feeding the machine automatically both parts, on PVC coated material and in general terms on plasticized materials, but not on fabrics as it might create wrinkles due to its setting system. The maximum cutting diameter is **16 mm** (the machine is supplied, adjusted and ready to use with the eyelet size required by customer on its order, standard is 12 mm).

The machine feeds the eyelet, the washer, cuts the material and sets in just one operation.

Each set of dies has been designed to work with only one eyelet size with its washers, the models may differ on:



If you need to set different eyelet sizes, you will require different machines as it not possible to change models.

EMBLEM disclaims any responsibility when using the machine for different uses than the ones covered on this operating manual.

4.2 Checking the machine before starting

Before using the machine for the first time, or when the location of the machine is changed, or adjustments or part replacements are made, we advice customers to check that the machine has not suffered a blow or breakage. The main controls are on the right hand side of the table.

The main controls are on the sides of the machine:







Fig. 10

4.3 Eyelet Setting

- 1. Check that the air inlet valve "I" is on OPEN position (fig. 7).
- 2. Check that the switch (G) is on ON position (with the green light on).
- 3.As soon as the machine is on position "ON", the engines on both deposits will start to turnaround. The brushes push out the eyelets and washers filling the raceways. To extend the life of the engines, they will stop when operator is not using the machine for a period of 40/50 seconds.
- 4. Place the banner over the stainless steel plate and underneath the safety protection (E) (see Fig. 11).
- 5. Press the pedal/setting button (F) so main shaft comes down making the cutting of the material and the setting of the eyelet.
- 6. It is important to realize that if you release the foot from the pedal too soon (finger in case of button) the setting might not be correct, so on first settings we recommend to press it down some extra timing until operator gets used to the correct cycle.





4.4. Other Machine Applications

To cut holes on the material, without setting eyelets, it will not be necessary to install specific tooling; it will be possible to make it with the same ones use to set the eyelets. Hole diameter will not be more than 16mm.

5 Adjustments

5.1 Warnings about the adjustments

The parts that should be replaced on a regular basis due to normal wear are the cutting or bottom die "M" and setting or top die "N". We will see that the parts need to be replaced when either the cutting or the setting is not accurate. We always recommend having a spare set of these parts on your stock.





When doing maintenance operations if by any reason it is necessary to remove parts meant for operator safety (safety protection, stainless steel plate ...) remember to put them back where they belong and fasten them firmly.

WARNING:

Shut the general air inlet valve to CLOSE position (see Fig. 6) and the switch "G" on OFF (no lighting) to change dies, install optional equipment or any other handling.

5.2 Dies Changing (Always for same Dimension)

Whenever is necessary to replace the dies for its normal wearing you should follow these steps:

WARNING:

To install a new set of dies it will be necessary to take out the safety protection "E" (see Fig. 11). You must ALWAYS place it back as otherwise machine will not work.

Please be very careful while doing adjustments, always making sure that your hands and fingers are out of the setting area (J) (see Fig.5) and that nobody can press the setting button /pedal (F) (see Fig. 1).

 Set the green switch to OFF position. With your hand slide gently (in order not to damage the spring) the eyelet raceway.
While you are still holding it, turn around clock wise the small metal part so the ey- elets at the bottom stay away from the top die.
 Press the foot pedal/setting button holding it down. <u>Without releasing it</u>, shut off the air inlet valve so the axle of the cylinder stays on its lower position. When the valve changes its position from open to close, the compressed air on the internal circuit of the machine is expelled, preventing any unexpected action from the pneumatic cylinder.
With an allen wrench, loosen the three screws on top of the safety cover on the front of the machine to gain access to the setting area.
With an allen wrech remove the set screw from top die.

Do the same operation with the set screw of the bottom die.
 Open the air inlet valve so axle of the cylinder moves towards its upper position. Once cylinder is up close the air inlet valve again.
Is possible that the top die stays on the lower position as on the picture or that the operator has to remove it from the cylin- der axle. Once is free remove it from the setting area.
With your finger and underneath frame of the machine raise the bottom die until you can remove it with your hand.
Before installing the new set of dies, put both parts together (left: bottom die / right: top die)

With both dies (top/bottom) together, install them at the bottom of the setting area.
Install back the safety cover of the ma- chine. As the cover has to make contact with the security valve, start the installation sideways on the point marked by the arrow and then tighten the three set screws on the front.
 Open the air inlet valve. Press the pedal / setting button and WI- THOUT releasing it, close the air inlet valve again so axle stays on its lower position.
 With an allen wrench through the front open space of the safety protection tighten the top set screw. Tighten the bottom set screw.
 Open the air inlet valve so axle of the cylinder moves towards its upper position. Swift the switch from OFF to ON position so engines start to turn and laser is on. If the protection is not on its correct position, the machine will not work for safety reasons. Machine is ready to set.

5.3 Laser Pointer Adjustments

The machine comes with a laser pointer for accurate setting. In order to speed up the finishing process we recommend that customers print with the RIP the eyelet marks. Laser base has two set screws (see arrows) to adjust the position on the setting area. When working with different material thicknesses you might need to readjust the laser pointer (for example from banner to corrugated sheets 4mm).



Fig. 13

WARNING

To avoid eye damage caused by the laser, users should never shine the laser directly into their eye.



The machine has been designed to work on PVC banners, corrugated sheets . . . but not on fabrics, as it might create wrinkles. It is possible to precut the material in order to get a better finishing solving partially the problem. Precutting can be used as well on heavy banners, especially on the corners if they are welded as sometimes the eyelet has problems to go through the material due to its thickness.



6 Maintenance

The only part of the machine that needs to be lubricated is the part shown on the picture bellow. We use anti-seize assembly paste (Ref. Beslux Anti-Seize Paste 1). We recommend doing it every month but maintenance intervals might be shorter depending on the use of the machine.



For an optimum operation of the machine it is important to have machine clean, and this operation should always be done with a) the main air inlet valve on position CLOSE and b) the main switch on "OFF" position (no light on). It is especially important to clean the raceways where eyelets and washers come down; we recommended doing it at the end of the day with compressed air. Any threads or small parts on the raceways may stop the eyelets and washers from coming down. Same applies to any small objects inside the deposits.

Also it is important to clean setting area, especially the top die where threads will remain on the puncher. We recommend doing the cleaning with an air gun through the open space on the safety cover in the front of the machine. This operation should be done at least once per day, but depending upon the type of materials used might be necessary to increase the timing between cleanings.

The push button/foot pedal should always be clean and clear of any parts that could interfere on its normal operation.

If the machine is going to be a long period with no use please follow these recommendations:

1. Disconnect it from the compressor and from the power source.

2. Clean it and cover it to avoid humidity and dust.

It is important that the machine is connected to a compressor or local air installation with air filter.

7 Failures

7.1. Troubleshooting

PROBLEM	CAUSE	SOLUTION
The machine does not work	1. Check that the air hosepi- pe is connected to the com- pressor	1. Connect the air hosepipe
	2. Check that the air inlet valve is on open position.	2. Open the air inlet valve
	3. Check that main switch of the machine is on position "ON" (with light).	3. Change the position to "ON".
	4. Check that the air pressu- re on the circuit is 6 Bar	4. Adjust the pressure gauge until the manometer has the correct pressure
	5. Check that the safety protection makes contact with the microvalve (Q). See page 14 second picture.	5. Reposition the safety pro- tection."
The machine does not cut	1. Check that the air pressu- re on the circuit is 6 bars.	1. Adjust the pressure gauge until the manometer has the correct pressure.
	2. The edge of the bottom die is either worn out or damaged.	2. Change the die.
	3. The hole of the bottom die is full of cut material.	3. With a screwdriver clean the area underneath the stainless steel plate where cut material stores.
The eyelet crushes when setting	 Check that the pressure of the circuit is no more than 6 bars. 	1. Adjust the pressure with the manometer to 6 bars.
Suddenly the eyelet does not close completely.	1. Check that the pressure of the circuit is 6 bars.	1. Adjust the pressure with the manometer to 6 bars.
Washers /Eyelets do not come out of the deposit	1. Check that there is no- thing blocking the exit of eyelets/washers in the depo- sits.	1. Stop the deposits (ON/ OFF switch) and clean the hole where eyelets/washers come out.
	2. Check that the deposits (especially on the washer's one) is not overload.	2. Take out part of the load so the brushes can turn freely.

PROBLEM	CAUSE	SOLUTION
The machine leaks air.	1. Check that the position of the air inlet valve is comple- tely in OPEN position.	 Move completely the valve to OPEN. When is set halfway the air will be ex- pelled.

8 Safety

8.2 Safety devices

The machine has a range of protection devices to prevent operator (except on maintenance or repairs) from accessing dangerous areas where can be injured on a normal use of the machine.

The dangerous part of the machine is the setting area "J", where operator has the risk of crushing his fingers or hands.



The dangerous area "J" is protected by the following devices:

Acrylic safety protections – Front (E) and Back (O): Prevents the access of operator's hands or fingers to the setting area

Stainless steel plate (P): This plate prevents the access of operator's hands or fingers to the dangerous area.

General air inlet valve "I": This valve is the main ON/OFF switch of the machine. The valve allows manually opening or shutting the pneumatic air supply from the compressor or general air installation. As safety device, it has a decompressing system, when the valve changes its position from open to close; the compressed air on the internal circuit of the machine is expelled, preventing any unexpected action from the pneumatic cylinder when making assembling or adjustments on the machine.

CLOSE position

OPEN position





Switch "G": On "ON" position engines turn and laser pointer is on. It is important that operator is aware that even with the switch on "OFF" position it is possible to set eyelets.

Security microvalve "Q": If the safety protection (E) is not on its position the pneumatic cylinder will not work. This security device prevents operator injuries in case the air inlet valve is on OPEN position when the safety protection is off.

There are a series of labels on the machine that operator should read:

Label "Read manual": This label on left hand side of the cover of the machine explains operator that is mandatory to read the operating manual.



Label "Danger": This label on the front of the cover informs operator that there is danger of crashing hands and fingers when manipulating this area.





Label "Disconnect the machine before taking out protection": This label on the right of the cover informs operator that before taking out any protection the machine must be disconnected: a) shut air inlet valve and b) switch on "OFF".



9 Annex

9.1 Spare part Listing

Reference	Description	Reference	Description
Setting die 12mm		Motor (eyelets or washers)	
Safety protection (front)		Eyelet raceway spring	Comment
Safety protection (back)		Engine brushes	

9.2. Supplied Tooling

Allen wrench # 2.5 and # 3

9.3. Pneumatic Drawing





9.4. Electrical Drawing



Declaration of "CE" Conformity

Us,

DATAPLOT GmbH Gutenbergstraße 15 24558 Henstedt-Ulzburg

Company manufacturer of the brand EMBLEM declares under our own responsibility, that the
machine:Brand:EMBLEM
Easy Airpress Premium Mobile 2

Is in conformity with:

EU Directive of safety requirements on equipment 98/37/CE, integration of previous Directive 89/392/CEE and its subsequent changes (Directives 91/368/CEE, 93/44/CEE and 93/68/CEE).