

TRANSLATION OF THE ORIGINAL INSTRUCTIONS

Instructions, operating and maintenance manual



MANUALLY OPERATED AIR-OIL PRESS



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PREFACE

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The Manufacturer is in no way responsible for consequences stemming from any incorrect operations carried out by the user.

PUBLISHER'S NOTE

This documentation is expressly intended for technicians, therefore some information that can be easily deduced from reading the texts and examining the drawings may not have been further specified.

The Publisher is in no way responsible for the information and data contained in this manual: all the information contained herein has been provided, checked and approved by the Manufacturer/Agent during the verification.

The Publisher is in no way responsible for consequences stemming from any incorrect operations carried out by the user.

GENERAL CONSIDERATIONS

All operating and maintenance instructions and recommendations described in this manual must be observed.

To obtain the best results, the Manufacturer recommends performing cleaning and maintenance operations regularly to keep the plant in the best condition.

Training personnel responsible for the plant is particularly important, concerning both use, as well as maintenance and controlling observance of the operating procedures and all the safety standards indicated in this manual.

Please note that, in any case, the company writing this manual is always available for any clarifications or additional information.

INDEX OF REVISIONS

REV.	NOTES FOR PUBLICATION	No. OF LAST PAGE	DATE
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01			
02			

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Chapter 1

MACHINE IDENTIFICATION

CHAPTER 1

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1. MACHINE IDENTIFICATION

1.1. MANUFACTURER IDENTIFICATION

Any request for information or assistance must be sent to this address:

MANUFACTURER:	ALFAMATIC s.r.l. Via Magenta, 25 20010 San Giorgio su Legnano (MI) - ITALY Tel. 39-0331-406911 Fax +39-0331-406970 email: info@alfamaticgroup.it Website: www.alfamatic.com
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1.2. MODEL IDENTIFICATION

MACHINE:	MANUALLY OPERATED AIR-OILPRESS
MODEL:	MOP 07-15-30-50 MOPH 07-15-30-50 MOPS 07-15-30-50

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 Reproduction, including partial, of the manual is forbidden without the written authorisation of ALFAMATIC s.r.l.

1.3. CE IDENTIFICATION PLATE

The CE plate with the machine's identification data, is permanently attached to the machine:

POS	DESCRIPTION
1	MANUFACTURER'S IDENTIFICATION DATA
2	CE MARKING
3	MODEL IDENTIFICATION
4	SERIAL NUMBER
5	LENGTH OF TOTAL STROKE
6	LENGTH OF WORK STROKE
7	APPLIED FORCE



2 •  

1 • 20010 S.GIORGIO SU L. (MI) - ITALY
Via Magenta 25 Tel -390331 - 406911 Fax 406970

3 • **PRESSA M-OP**

4 • **MATRICOLA N.**

5 • **CORSA TOTALE** mm

6 • **CORSA DI LAVORO** mm

7 • **FORZA A 6 bar** Kg

PRESSIONE MAX 6 bar



ATTENTION!

IT IS STRICTLY FORBIDDEN to remove the CE identification plate and/or replace it with other plates. If, for accidental reasons, the license plate is damaged, detached, or the manufacturer's seal that binds it is simply removed, the customer is required to inform the Manufacturer.

1.4. DECLARATION OF CONFORMITY (COPY)

**DICHIARAZIONE CE DI CONFORMITA'**

ai sensi dell'Allegato II, punto 1, parte A, punto 5 della Direttiva 2006/42/CE
ai sensi dell'Allegato IV della Direttiva 2014/30/UE



Prodotto: PRESSA PNEUMIDRAULICA AD AZIONAMENTO MANUALE

Nome del fabbricante: ALFAMATIC S.r.l.

Indirizzo: Via Magenta, 25
20010 S. Giorgio su Legnano (MI)

La presente dichiarazione di conformità è rilasciata sotto la responsabilità esclusiva del fabbricante.

OGGETTO DELLA DICHIARAZIONE

Denominazione generica: PRESSA PNEUMOIDRAULICA

Denominazione commerciale: PRESSA PNEUMOIDRAULICA AD AZIONAMENTO MANUALE

Serie: MOP

Modello: MOP07 – MOP15 – MOP30 – MOP50 – MOP80

Matricola: ----

Dotazioni: Sistema per il controllo del processo di pressatura CSQ-Visual (quando fornito)

**L'OGGETTO DELLA DICHIARAZIONE DI CUI SOPRA È CONFORME ALLA PERTINENTE NORMATIVA DI
ARMONIZZAZIONE DELL'UNIONE**

Direttiva 2006/42/CE Direttiva Macchine
Direttiva 2014/30/UE Compatibilità elettromagnetica

e alle seguenti norme tecniche

UNI EN ISO 12100:2010 Sicurezza del macchinario – Principi generali di progettazione – Valutazione del rischio e riduzione del rischio

UNI ISO/TR 14121-2:2013 Sicurezza del macchinario - Valutazione del rischio - Parte 2: Guida pratica ed esempi di metodi

UNI EN 14120:2015 Sicurezza del macchinario – Ripari – Requisiti generali per la progettazione e la costruzione di ripari fissi e mobili

UNI 10893:2000 Documentazione tecnica di prodotto – Istruzioni per l'uso – Articolazione e ordine espositivo del contenuto

UNI 10653:2003 Documentazione tecnica – Qualità della documentazione tecnica di prodotto

CEI EN 60204-1:2006+A1:2010 Sicurezza del macchinario – Equipaggiamento elettrico delle macchine – Parte 1: Regole generali

LA PERSONA AUTORIZZATA A COSTITUIRE IL FASCICOLO TECNICO E'

ALFAMATIC S.r.l. - Via Magenta, 25 20010 S. Giorgio su Legnano (MI)

Firmato a nome e per conto di:

Enrico Colombo - Legale Rappresentante di Alfomatic S.r.l.

S. Giorgio su Legnano, __/__/____

1.5. REFERENCE DIRECTIVES

Before placing it on the market, to certify the compliance of the machine with the provisions of the Directive, ALFAMATIC srl took steps to carry out the risk assessment in order to verify compliance with the essential health and safety requirements of the Directive as well as the tests and verifications required by the applied reference standards.

The technical construction file was prepared in compliance with the provisions of Annex VII of directive 2006/42/EC and is available for verification by the supervisory bodies, upon reasoned request, as required by the current legislative provisions on the subject.

ALFAMATIC s.r.l. then places the machine on the market, equipping and accompanying it with the following documentation:

- CE marking.
- EC declaration of conformity.
- Instructions and warnings manual (documentation prepared according to point 1.7.4 of Machinery Directive 2006/42/EC).

Also be reminded that the machine was designed according to the following Standards:

- UNI EN ISO 12100:2010 Safety of machinery - General principles for design - Risk assessment and risk reduction
- UNI ISO/TR 14121-2:2013 Safety of machinery - Risk assessment - Part 2: Practical guidance and examples of methods
- UNI EN 14120:2015 Safety of machinery – Guards – General requirements for the design and construction of fixed and movable guards
- UNI 10893:2000 Technical product documentation – Instructions for use – Articulation and exposition of the content
- UNI 10653:2003 Technical documentation – Quality of the product technical documentation
- IEC EN 60204-1:2006+A1:2010 Safety of machinery – Electrical equipment of machines – Part 1: General rules

Chapter 2

GENERAL PRELIMINARY INFORMATION

CHAPTER 2

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2. GENERAL PRELIMINARY INFORMATION

2.1. MANUFACTURER IDENTIFICATION

The manual is intended for operators appointed to operating and managing the plant in every phase of its technical life.

It contains the topics that refer to correct use of the machine, in order to maintain its functional and qualitative characteristics unchanged over time. All the information and warnings for correct use in total safety are also reported.

Like the EC declaration of conformity, the manual is an integral part of the machine and must always accompany it in every relocation or sale. It is the user's responsibility to keep this documentation intact, so that it can be consulted, throughout the life of the machine.

2.2. SUPPLY AND SAFEKEEPING

The manual is provided in printed and electronic formats.

All additional documentation (air and electrical diagrams, sub-supplier manuals) are provided in attachment to this manual.

Keep this manual with the machine, so that it can be easily consulted by the operator.

The manual is an integral part for safety purposes, accordingly:

- it must be kept intact (it must have all of its parts). If it gets lost or ruined, it is necessary to immediately ask for a new copy;
- it must stay with the machine until demolition (also for relocation, sale, rental, leasing, etc....).

The enclosed manuals are an integral part of this documentation and the same recommendations/instructions as in this manual apply.

2.3. UPDATES

If the machine needs functional changes or replacements, the machine manufacturer is in charge of revising or updating the manual. The manufacturer is responsible for delivering the update of the manual.

The user also has the responsibility of making sure that, if this document is modified by the manufacturer, only the updated versions of the manual are actually kept at the points of use.

2.4. LANGUAGE



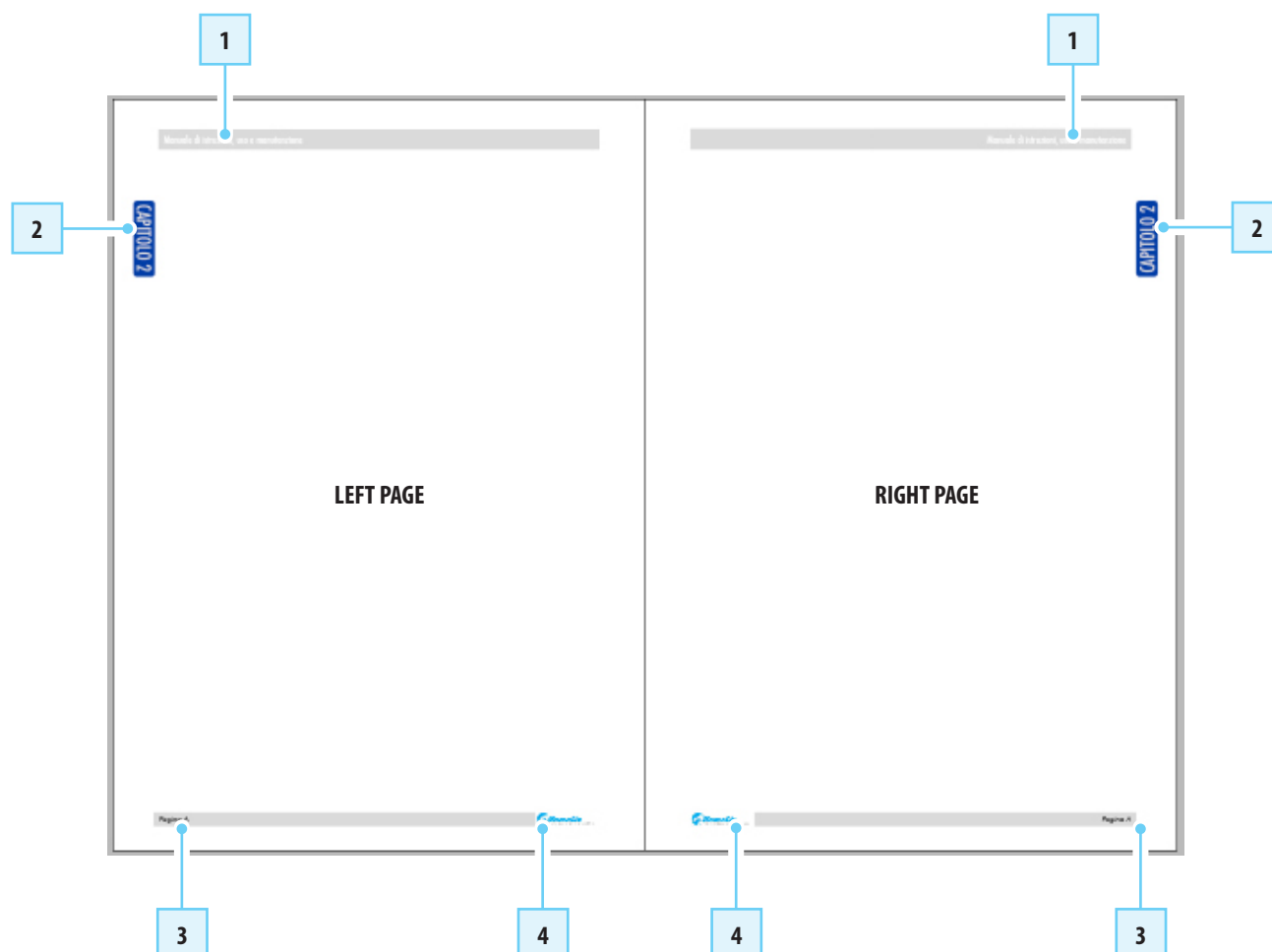
The original manual was prepared in Italian.

Any translations into additional languages must be made from the original instructions.

The Manufacturer is responsible for the information contained in the original instructions; translations into different languages cannot be completely verified, so if an inconsistency is found it is necessary to follow the text in the original language or contact our Technical Documentation Office.

2.5. STRUCTURE OF THE MANUAL PAGES





The master pages of this manual are structured so as to provide important information to the user on any page he/she is on:





POS.	ELEMENT
1	DOCUMENT TITLE
2	CHAPTER NUMBER
3	PAGE NUMBER
4	COMPANY LOGO

2.6. OPERATOR QUALIFICATIONS

In order to establish with certainty what the skills and qualifications of the operators assigned to the various tasks are (start-up, cleaning, scheduled maintenance), consult the following table:




QUALIFICATION	DEFINITION
OPERATOR 	<p>User staff trained and qualified to use and operate the machine for production purposes for the activities it was built and supplied for. The operator must be able to perform all the operations necessary for proper machine function and for the safety of him/herself or of any collaborators.</p> <p>He/She must have proven experience in correct use of these types of machines/plants and be duly trained, informed and instructed. In he/she has any doubts, he/she must report every anomaly to his/her supervisor.</p>
MECHANICAL MAINTENANCE TECHNICIAN 	<p>Qualified technician able to carry out preventive/corrective maintenance on all mechanical parts of the machine subject to maintenance or repair.</p> <p>Qualified technician allowed access to all the parts of the machine for visual inspection, controlling the state of the equipment, adjustments and calibrations.</p> <p>Qualified technician able to:</p> <ul style="list-style-type: none"> • run the machine in the same way as the operator; • work on the mechanical parts for adjustments, maintenance and repairs; • read technical drawings and parts lists. <p>In extraordinary cases, he/she is trained to make the machine work with reduced safety measures.</p> <p>Where necessary, he/she can give the operator instructions for proper use of the machine for productive purposes.</p> <p>Note: he/she is not enabled to operate on live electrical systems (if any).</p>
ELECTRICAL MAINTENANCE TECHNICIAN 	<p>Qualified technician able to carry out preventive/corrective maintenance on all electrical parts of the machine subject to maintenance or repair.</p> <p>Qualified technician allowed access to all the parts of the machine for visual inspection, controlling the state of the equipment, adjustments and calibrations.</p> <p>Qualified technician able to:</p> <ul style="list-style-type: none"> • run the machine in the same way as the operator; • intervene on the adjustments and electrical systems for maintenance, repair and replacement of worn parts; • read wiring diagrams and check the correct functional cycle. <p>Where necessary, he/she can give the operator instructions for proper use of the machine for productive purposes.</p> <p>He/She can only operate in the presence of voltage inside the electrical panels, junction boxes, control equipment etc. if he/she is a skilled person (SP). (Refer to standard EN50110-1).</p>
MANUFACTURER'S TECHNICIAN 	<p>Technician qualified by the manufacturer and/or his distributor for complex operations, as he/she is aware of the construction production cycle of the machine/plant.</p> <p>This person intervenes in accordance with the requests of the user.</p> <p>His/Her skills are, depending on the case, mechanical and/or electrical and/or software-related.</p>

QUALIFICATION	DEFINITION
LIFTING EQUIPMENT DRIVER 	<p>Personnel authorised to use equipment for lifting and moving materials and machines (strictly following the instructions of ALFAMATIC S.r.l., in compliance with the laws in force in the country of the machine user.</p>
SKILLED SOFTWARE TECHNICIAN 	<p>Qualified technician able to:</p> <ul style="list-style-type: none"> • carry out preventive/corrective maintenance on all electronic and/or software parts of the machine subject to maintenance or repair; • allowed access to all the parts of the machine for visual inspection, controlling the state of the equipment, adjustments and calibrations. <p>The user's qualified technician with proven experience and training in systems based on: PLC/PC drives, etc. (knowledge of programming, machine functions etc.) for complex operations such as, for example, machine data modification, work program creation, adjustment of drive parameters etc, being knowledgeable of the production, technological and construction cycle of the supplied machine.</p> <p>He/She can only operate inside electrical panels, junction boxes, control equipment etc. in the presence of voltage if he/she is a skilled person (SP) (See EN 50110-1).</p> <p>His/Her skills are electronic and/or software-related.</p>

The qualifications shown in the table on this page mandatorily fall within a category of people defined as "trained person".

QUALIFICATION	DEFINITION
TRAINED PERSON	<p>This individual has been informed, instructed and trained in the work and on the possible dangers deriving from improper use. He/She also knows the importance of safety devices, accident prevention regulations and safe working conditions.</p>

2.7. SYMBOLS USED IN THE MANUAL

SYMBOL	DESCRIPTION
	Symbol used to identify particularly important information in the manual. This information is also related to the safety of the staff involved in machine use.
	This symbol is used to identify operator safety-related warnings or procedures.
	This symbol is used to identify warnings or procedures related to electrical energy.

2.8. TERMINOLOGY

The manuals use terminology that is technical or with meanings differing from their common meanings. The terms and abbreviations are explained below:

TERM	DESCRIPTION
INTERCHANGEABLE EQUIPMENT	A device which is fitted onto the machine, after commissioning it, by the operator in order to modify the machine's function or provide a new function, to the extent that such equipment is not a tool.
SAFETY COMPONENT	<p>Component:</p> <ul style="list-style-type: none"> intended to perform a safety function; placed on the market separately; whose failure and/or malfunction jeopardises the safety of persons, and; which is not essential for the purpose that the machine was designed for or that can be replaced with other components for this purpose. <p>Annex V contains a guideline list of safety components which can be updated based on article 8, paragraph 1, letter a).</p>
PLACEMENT ON THE MARKET	The first availability, within the Community, for a fee or free of charge, of a machine or a partly-completed machine for the purposes of distribution or use.
MANUFACTURER	A natural or legal person who designs and/or manufactures a machine or a partly-completed machine covered by this directive, and is responsible for the conformity of the machine or the partly-completed machinery with this directive for the purpose of being placed on the market under his/her own name or with his/her own brand or for personal use. In the absence of a manufacturer as defined above, the natural or legal person who places on the market or puts into service a machine or a partly completed machinery covered by this Directive, shall be considered as the manufacturer.
AGENT	Any natural or legal person established within the Community who has received a written mandate from the manufacturer to perform on his behalf all or part of the obligations and formalities connected with this directive.
COMMISSIONING	The first use, in accordance with its intended use, within the Community, of a machine that this Directive refers to.
HARMONISED STANDARD	A technical specification adopted by a standardisation body, i.e. the European Committee for Standardisation (CEN), the European Committee for Electrotechnical Standardisation (Cenelec) or the European Telecommunications Standards Institute (ETSI), within the framework of a mandate issued by the Commission in accordance with the procedures established by Directive 98/34/EC of the European Parliament and of the Council of 22 June 1998, which sets forth an information procedure in the field of technical standards and regulations and rules relating to information society services (1), and not binding.
DANGER	This word refers to a high risk hazard that can lead to death or serious injury if not avoided.
DANGER ZONE	Any area inside and/or near the machine where the presence of an exposed person constitutes a risk to the safety and health of that person.
EXPOSED PERSON	Any person who is fully or partially inside an danger zone.
RISK	The combination of the probability and severity of an injury or damage to health that may arise in a dangerous situation.

2.9. SAFETY PICTOGRAMS APPLIED TO THE MACHINE

The machine has been equipped with a series of pictograms for the purpose of warning the operator of the presence of residual risks.



ATTENTION!







It is strictly forbidden to remove the warning plates attached to the machine.
ALFAMATIC S.r.l. will not be held liable whatsoever for machine safety due to the failure to observe this forbidden action.



ATTENTION!

The user is required to replace the warning plates if they become illegible due to wear.

Below is the list of plates that ALFAMATIC S.r.l. uses on its machines and the layout with relative positioning.

SYMBOL	DESCRIPTION
	Carefully read the User and Maintenance Manual before performing any operation on the machine or plant.
	Electrical hazard! Voltage sign displayed on the electrical panel and on other electrical components installed in the machine.
	Generic hazard! Warning, generic hazard (completed with caption specifying what type).
	It is forbidden to perform maintenance on moving parts! Do not lubricate and clean with moving parts. This is displayed near the cylinder.
	It is forbidden to remove the safety devices! Do not remove the safety devices given the presence of moving parts in the machine.
	Danger of flying objects! Attention, risk of product breaking, flying and falling during the machine's operating cycle.







IMPORTANT!

It will be the customer's responsibility to apply the safety pictograms after having installed his equipment on the machine in order to find an area that is clearly visible to the user.

2.10. PERSONAL PROTECTIVE EQUIPMENT

When working near the machine, both for the assembly operations, and for the maintenance and/or adjustment operations, it is necessary to strictly follow the general accident prevention rules, for this it will be important to use the personal protective equipment (PPE) required for each operation.

Below is a complete list of personal protective equipment (PPE) that can be requested for the various procedures:

SYMBOL	DESCRIPTION	
	It is mandatory to use protective or insulating gloves	This means that it is necessary for staff to wear protective or insulating gloves.
	It is mandatory to wear safety footwear	This means that it is necessary for staff to wear safety footwear to protect their feet.
	It is mandatory to wear protective clothing	This means that it is mandatory for staff to wear the specified protective clothing.
	It is mandatory to wear protective glasses	This means that it is necessary for staff to wear protective eye glasses.

The clothing of anyone operating or servicing the line must comply with the essential safety requirements defined by EU Reg. 2016/425 and the laws in force in the country where it is installed.

2.11. USER SAFETY AREAS

The areas around the machine are divided as follows:

TERM	DESCRIPTION
CONTROL AREA	These are the areas where the user and the other operators can carry out the command and control operations of the machine's cyclical functions ("driver's position"), both in automatic and in semi-automatic mode, from the specific control panels or through manual operations.
MAINTENANCE/ ADJUSTMENT AREA	These are the areas where mechanical and electrical maintenance workers can carry out maintenance or adjustment operations. These areas are considered at risk and are not accessible during normal automatic machine operation. Operators must be fully aware of the warnings related to safety and what personal protective equipment to wear.
DANGER ZONES	These are all of the areas inside (or around) the machine posing residual risks that can cause personal injury. During machine operation, access to these areas is forbidden to everyone.

The dangers and risks existing in these areas are protected, as much as possible, with guards and with safety devices which, if triggered, completely shut down the machine.



ATTENTION!

When the machine is running, it is absolutely forbidden to operate in dangerous areas as some risks may not have been totally eliminated.

2.12. WARRANTY

- The seller guarantees that there are no defects, taking into account the current technological state in relation to the type of machine, for a period of one year starting from the invoice date.
- The right to the warranty services is only recognised if, as soon as the defect is found, it is reported to ALFAMATIC S.r.l., placing the relative repair order at the same time.
- Without prejudice to the time limit set in the previous point, said warranty also extends to those parts of the machine that are not directly produced by ALFAMATIC S.r.l., except for the electrical parts.
- The seller provides the warranty by proceeding at his/her discretion, according to the technical requirements, to the repair or the replacement of defective parts.

The right to the warranty does not exist when the defect occurred in relation to the following cases:

- when the buyer did not report the defects to the seller within eight days of discovery, in writing and requesting the relative assistance to be provided;
- the machine or its parts were used differently from the use they were intended for;
- the machine was previously given over for repair to a service that is not authorised by ALFAMATIC S.r.l.;
- parts have been installed or replaced on the machine, that are not authorised by ALFAMATIC S.r.l.;
- the rules on use and maintenance of the machine, set forth in the respective manual, have not been observed.

The following are excluded from the warranty:

- Faults, defects and damage resulting from normal wear, bad weather and natural events, improper use or lack of maintenance.

The warranty involves the free replacement of faulty parts.

The warranty does not cover the cost of labour and any travel expenses of the technician, of the shipment of spare parts and of any possible additional repair work.

Without prejudice to the buyer's right to the warranty service under the terms set forth above, it is expressly excluded that the purchaser may request the termination of the contract, the replacement of the machine, the reduction of the sale price, as well as compensation for any damages, whether direct or indirect.

The right to the warranty must be presented exclusively to dealers authorised by the manufacturer, or directly to ALFAMATIC S.r.l.

CHAPTER 2

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Chapter 3

SAFETY MEASURES

CHAPTER 3

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3. SAFETY MEASURES

3.1. SAFETY DEVICES

In order to guarantee total operator safety and prevent access to the inside of the machine when it is moving, it has been equipped with a series of safety devices which completely stop the machine when they are triggered.

**ATTENTION!**

Removing or tampering with safety devices poses a dangerous situation for the operator, who could suffer serious accidents that could cause serious physical damage. The removal or tampering of safety devices relieves ALFAMATIC s.r.l. from any kind of civil or criminal liability and/or any compensation in favour of the injured party.

The machine is fitted with the safety devices listed in the table below.

The positions of these devices are provided below.

POS.	NAME
1	"ON-OFF" SWITCH



3.1.1. "ON-OFF" SWITCH

IMAGE	DESCRIPTION
<p>OFF ON</p>	<p>It is positioned at the front of the machine. It cuts off the power supply to the entire machine. The switch needs to be cut off when:</p> <ul style="list-style-type: none"> • there is an electrical danger on the machine, plant or electrical panel; • mechanical work is carried out on the machine or plant; • pneumatic work is carried out on the machine or plant; • electrical work is carried out on the machine or plant.

3.2. NOISE

The noise was measured in accordance with the provisions of standards UNI EN 11200 and UNI EN ISO 3746.

During the operating cycles the noise exposure of the appointed staff does not exceed 73 dB.

The noise generated by the machine is caused by the discharge of compressed air. The exhaust port is located on the upper head of the machine and is protected by a silencer.

The actual noise level of the machine in operation on site during a production process is different from the measured level because the noise is affected by factors such as:

- type and characteristics of the site;
- type of processed material;
- other surrounding machines in operation.

It is the user's responsibility to apply the consequent preventive and protective measures, in accordance with the legislation of the country of installation and use of the machine.

3.3. VIBRATIONS

The vibrations produced by the machine, depending on the operating mode, are not dangerous to the health of the operators.



ATTENTION!

Excessive vibration can only be caused by a mechanical fault that must be immediately reported and eliminated, in order not to compromise the safety of the machine and the operators.

3.4. ELECTROMAGNETIC COMPATIBILITY

The supplied machine contains electronic components subject to the rules of Electromagnetic Compatibility, affected by conducted and radiated emissions.

The emission values comply with the regulatory requirements thanks to the use of components in observance of the Electromagnetic Compatibility Directive, suitable connections and installation of filters where necessary.

The machine is therefore deemed compliant with the Electromagnetic Compatibility directive (EMC).



ATTENTION!



Any maintenance activity carried out on the electrical equipment in a non-compliant manner or the incorrect replacement of components can undermine the efficiency of the adopted solutions.

3.5. RESIDUAL RISKS

This machine was designed to guarantee the essential safety requirements of the operator. Safety, as much as possible, has been integrated into the design and construction of the machine; however there are still risks that operators must be protected against, especially during:

- transport and installation;
- normal operation;
- adjustment and fine tuning;
- maintenance and cleaning;
- dismantling and disposal.

For every residual risk, there is a description of the risk and of the area or part of the machine subject to the residual risk (unless the risk applies to the whole machine). Information is also provided on the correct use of the personal protective equipment required and prescribed by the manufacturer.

RISK	DESCRIPTION AND INFORMATION ON THE PROCEDURE
ELECTRICAL RISK / ELECTROCUTION Required PPE 	Relative to electrical components if the operations are carried out with the voltage on. These operations are only possible for suitably trained, informed, instructed and qualified staff.
RISK OF CRUSHING RISK OF CUTS AND CRUSHING RISK OF ENTANGLEMENT Required PPE 	Relative to the manual machine set-up operations: tool on the cylinder and handling the workpiece. These operations can be carried out with the machine stopped and the safety measures enabled, during normal operation. The trained, informed and instructed operators must be equipped with the appropriate PPE, and must only intervene in the work area of the machine when the machine is stopped, or in a controlled manner.



ATTENTION!

Do not carry out maintenance work unless the energy sources have been cut off.



ATTENTION!

It is absolutely forbidden to remove the safety guards or open parts of the machine with inspection doors fitted with clamping screws without first having disconnected the machine's power supply.

Do not bring foreign objects or tools into the machine operating and work area.



ATTENTION!

In the event of a fire in the vicinity of the machine ALFAMATIC s.r.l. (or on the machine itself), it is forbidden to use water or other aqueous or wet extinguishing agents, as this presents the risk of electrocution through indirect contact.

The user is required to:

- analyse the risks that could occur during handling and installation at its site (the analyses conducted on machine handling have only been made in consideration of its characteristics);
- mark off the forklift and/or laser-guided vehicle routes on the floor;
- raise awareness and instruct staff appointed to operations at the workstations and staff appointed to running the machine;
- apply visual safety signs in the work environment after assessing the risks within the transit or control areas.

CHAPTER 3

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Chapter 4

MACHINE DESCRIPTION

CHAPTER 4

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4. MACHINE DESCRIPTION

In order to ensure maximum reliability of operation ALFAMATIC s.r.l. made a careful choice of materials and components to be used in the construction of the machinery, subjecting it to regular testing before delivery. Good performance over time depends on correct use and adequate preventive maintenance, according to the instructions in this documentation and in the documentation supplied with the machine.

All the construction elements, the connection and control parts have been designed and manufactured with a degree of safety that withstands anomalous or higher-than-stated stresses. The materials are of the best quality and their delivery into the company, their storage and use in the workshop is constantly checked, in order to guarantee the absence of damage, deterioration and malfunction.

Regardless of the design and construction details, it is of fundamental importance, for the purposes of correct use, safety, durability and reliability of the machine, to strictly follow the manufacturer's instructions.

In the instruction and warnings manual, the maintenance section indicates the types of maintenance required for the machine (scheduled and unscheduled maintenance) as well as the frequency of maintenance and all the information necessary to carry it out correctly.

4.1. INTENDED USE (CORRECT)

The machine described in this manual called "PRESS MOP" is an air-oil press designed and built to develop an axial force, through an air-oil thrust unit; it consists of a mechanical/manual unit to draw in the piece, and an automatic air-oil multiplier for the pressing stroke.

The machine has been designed to perform machining on metal materials, actions such as marking, shearing, chamfering, deburring, drawing, clinching, straightening, keying, riveting, bending and assembly in general.

The machine in question is intended for:

INTENDED USE	UNINTENDED USE	PROCESSING ENVIRONMENT
Axial machining on metal materials, such as marking, shearing, chamfering, deburring, drawing, clinching, straightening, keying, riveting, bending and assembly in general.	Any use other than the intended uses.	Industrial metallurgic.

The machine was created for:

- fulfilling the specific needs mentioned in the sales contract;
- use according to the instructions and limits of use set forth herein.

The machine was designed and built to work safely if:

- it is used within the limits declared in the contract and in this manual;
- the procedures of the operating manual are followed;
- scheduled maintenance is carried out according to the stated frequency and manner;
- unscheduled maintenance is carried out promptly as needed;
- the safety devices are not removed and/or bypassed.

4.1.1. REASONABLY FORESEEABLE INCORRECT USE

Reasonably foreseeable incorrect use is as follows:

- installation carried out differently than specified in this operating manual;
- using the machine as a supporting surface;
- using the machine differently than specified in this operating manual.

The following is forbidden:

- using it with the reaction point (the workpiece) not placed on the central axis of the unit rod;
- using it if the work tool applied to the moving part of the thrust unit cannot be properly centred on the axis of the part itself;
- using it to process products which, due to their structural characteristics, can cause fragments or splinters to be thrown due to breakage;
- using it to process products which, under pressure, compression, cutting or deformation, can detonate or explode.

Any other use of the machine outside of its intended use must be previously authorised in writing by the Manufacturer. Without such written authorisation, use is considered "improper"; therefore the Manufacturer shall not be held liable for any damage caused to property or persons and deems any type of warranty on the supplied line and machines as lapsed.

4.2. MANDATORY AND FORBIDDEN ACTIONS

4.2.1. MANDATORY USER ACTIONS

The user (business owner or employer) must:

- take into account the skills and conditions of the operators in relation to their health and safety;
- provide the personal protective equipment suitable for the individual procedures;
- ask the individual workers to observe the company rules and regulations concerning safety and the use of collective and personal protective equipment made available to them;
- instruct staff on accident procedures;
- instruct staff on devices designed for operator safety;
- educate staff on the risks of noise emissions in the workplace;
- instruct staff on the general accident prevention rules laid down by European directives and by the legislation of the destination country of the plant.

Only have staff that has read this manual and is properly trained work with the machine.

4.2.2. MANDATORY OPERATOR ACTIONS

- Always carry out maintenance work with the machine switched off. Do not lubricate moving parts.
- When the machine is in operation, do not approach with chains, bracelets, neckties, or other clothing that could get caught in the mechanisms.
- Always carry out work on the electrical panel, on the junction boxes, on the cables and on all the components of the electrical system, with the main switch turned off.
- When starting the machine make sure there is no one in the danger areas.
- During manual operations, take the utmost care that no one can directly access the moving parts.
- Use the protective equipment provided by the employer in an appropriate manner.
- Immediately report any deficiencies of the safety devices to the employer, the manager or supervisor.

4.2.3. FORBIDDEN OPERATOR ACTIONS

In particular, the operators must not:

- insert objects other than the product inside the press;
- approach body parts to moving areas and the work area during the production phase;
- use the machine improperly, i.e. for uses other than those indicated in paragraph "Intended Use";
- never exceed the applicable force limits stated in the specific tables included in this manual.
- remove or modify safety or signalling devices without authorisation;
- carry out operations or manoeuvres of their own initiative that are not within their job description or that can compromise their own safety or that of other workers;
- wear bracelets, rings or chains that can dangle and get caught in moving parts, creating danger for the operator;
- work with products other than those indicated;
- replace or modify the speed of the machine components without the authorisation of a manager;
- change the plant cycle;
- modify the electrical connections to exclude internal safety measures;
- use the machine if it has not been correctly installed according to the regulations in force;
- use the machine as a support point even if not in operation (running the risk of damaging falls and/or the risk of damaging the machine);
- use the machine outside of the permitted environmental conditions (see chapter 5).



ATTENTION!

The company ALFAMATIC s.r.l. is not liable for damage caused to property or persons if it is found that the machine has been used in one of the environments listed above.

- It is forbidden to take down the safety devices during operation.
- It is forbidden to introduce any object inside the machine.
- It is forbidden to disable the safety measures.
- It is forbidden to use the machine, even part of it, for uses other than those listed in this manual.
- It is forbidden to change and/or move the parts of the machine.
- It is forbidden to use the machine with devices or elements other than those recommended by the manufacturer without the specific written consent of the manufacturer.
- Do not operate the machine or the equipment when under the influence of alcohol, psychoactive drugs or drugs.

4.3. MACHINE MODELS

Here are the two main machine configurations:

standard stroke

mod. MOP 07R - 15R - 30R - 50R / MOPH 07R - 15R - 30R - 50R / MOPS 07R - 15R - 30R - 50R



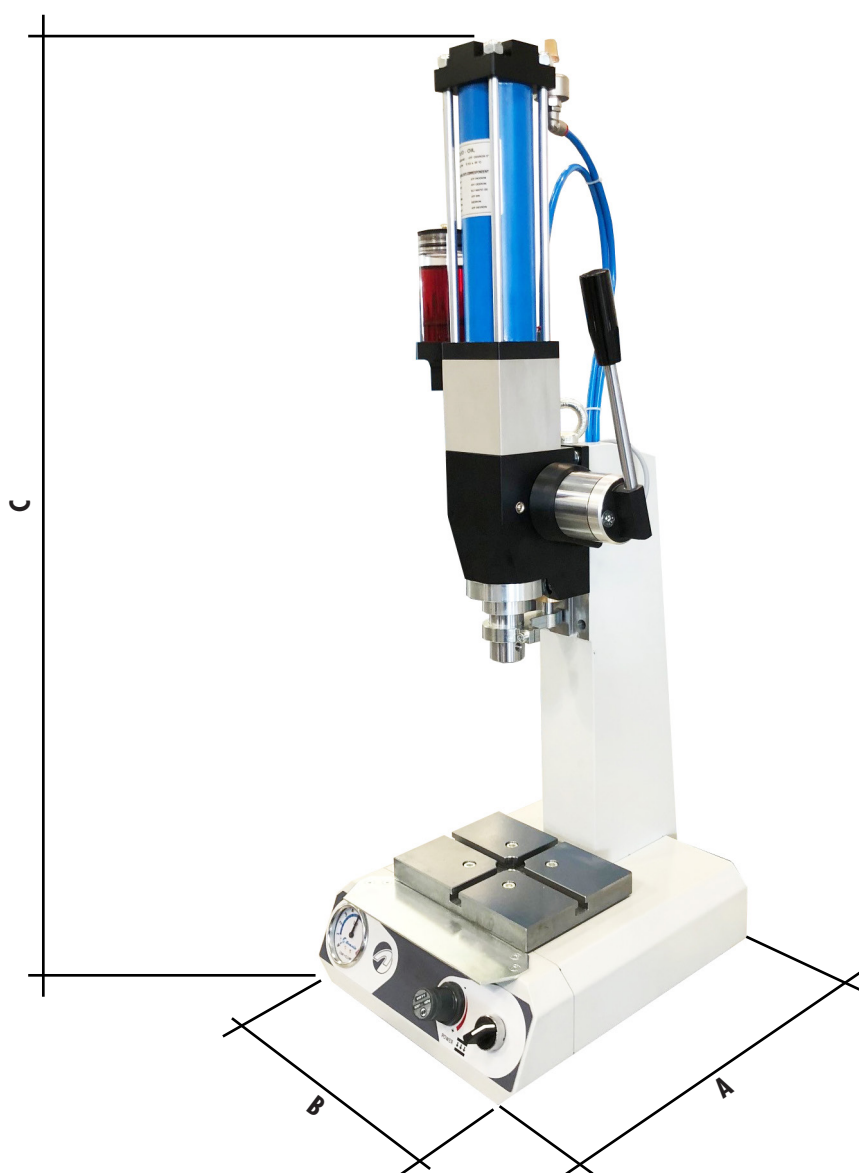
short stroke

mod. MOP 07 - 15 - 30 - 50 / MOPH 07 - 15 - 30 - 50 / MOPS 07 - 15 - 30 - 50



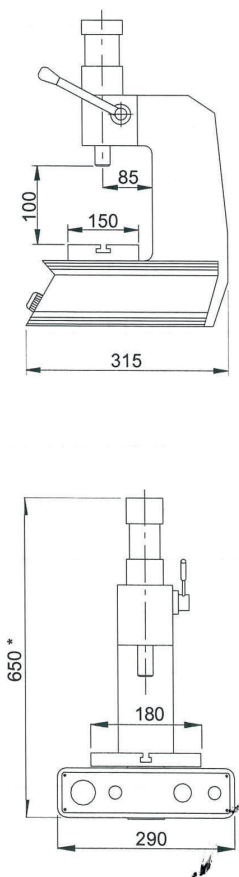
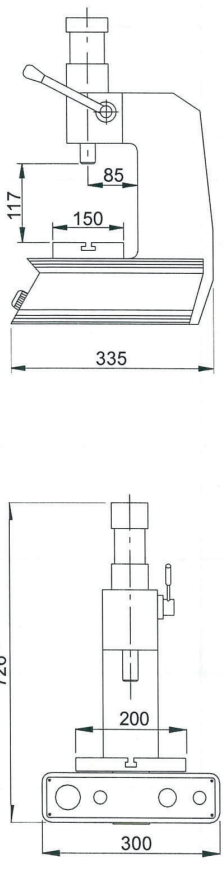
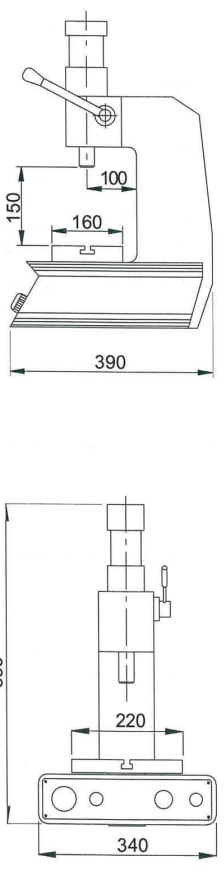
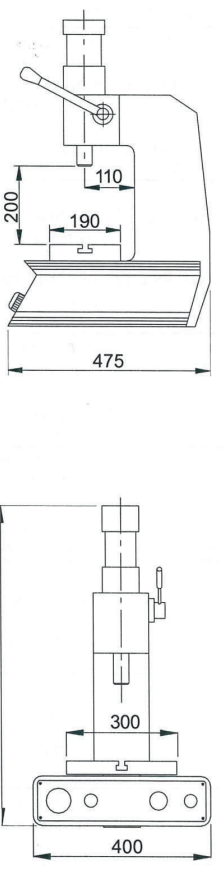
4.4. MACHINE DIMENSIONS

DIMENSIONS	MACHINE LENGTH (A) [mm]	see specifications on following pages
	MACHINE WIDTH (B) [mm]	
	MACHINE HEIGHT (C) [mm]	
	MAXIMUM TOOL WEIGHT [kg]	

**ATTENTION!**

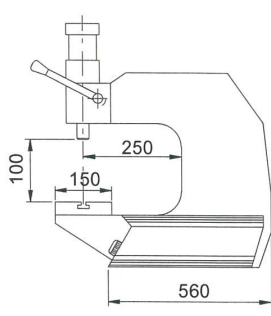
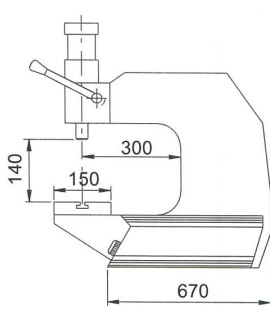
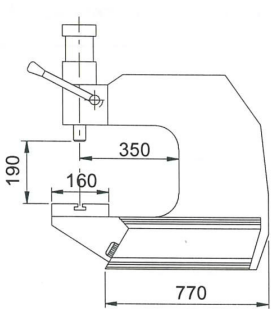
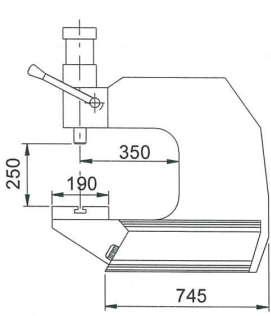
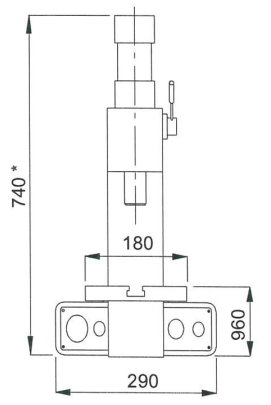
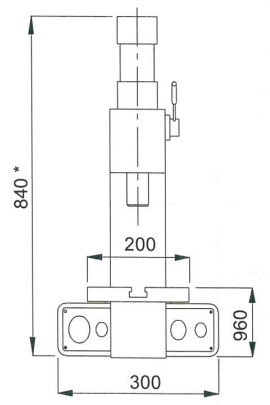
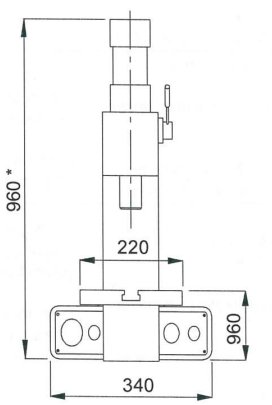
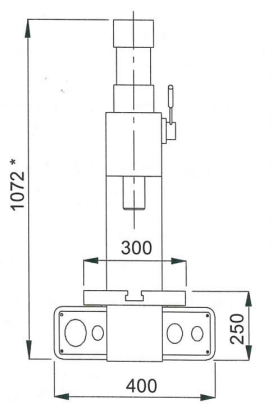
In case of need to use a tool that exceeds the described limits, it is compulsory to contact the Manufacturer.

4.4.1. MACHINE DIMENSIONS mod. MOP

DIMENSIONS	MOP 07 (R)	MOP 15 (R)	MOP 30 (R)	MOP5 0 (R)
				

* For 10mm stroke.

4.4.2. MACHINE DIMENSIONS mod. MOPH

	MOPH 07 (R)	MOPH 15 (R)	MOPH 30 (R)	MOPH 50 (R)
DIMENSIONS				
				

* For 10mm stroke.

4.4.3. MACHINE DIMENSIONS mod. MOPS

DIMENSIONS	MOPS 07 (R)	MOPS 15 (R)	MOPS 30 (R)	MOPS 50 (R)

* For 10mm stroke.

4.5. TECHNICAL DATA

GENERAL DATA	VOLTAGE [V]	
	FREQUENCY [Hz]	
	ABSORPTION [kW]	

4.5.1. TECHNICAL DATA mod. MOP

			MOP 07	MOP 15	MOP 30	MOP 50
CYLINDER CHARACTERISTICS	THRUST PARTS: (WORK C/SA FORCE) AIR-OIL UNIT OF	t.	0.7	1.5	3.0	5.0
	MOTOR FLUID	-	Compressed, filtered and lubricated air			
	WORK PRESSURE	bar	Max 6 bar			
	COIL SPRING RETURN STROKE C/SA FORCE	Kg = daN	7	6	5	5
	6 BAR WORK C/SA FORCE	Kg = daN	700	1500	3000	5000
	APPROACHING STROKE LEVER DRIVE C/SA FORCE	Kg = daN	2.5	2.5	2	2
	CLUTCH ENGAGEMENT LEVER DRIVE C/SA FORCE	Kg = daN	7	7	6	6
	WORK SPEED	mm/s	90	65	40	30
	MASS	Kg.	45	62	105	148
	WORK TEMPERATURE	°C	Max +60°C - Min -15°C			
	HUMIDITY	-	70%			
	SOUND EMISSION	dB	73 dB			

4.5.2. TECHNICAL DATA mod. MOPH

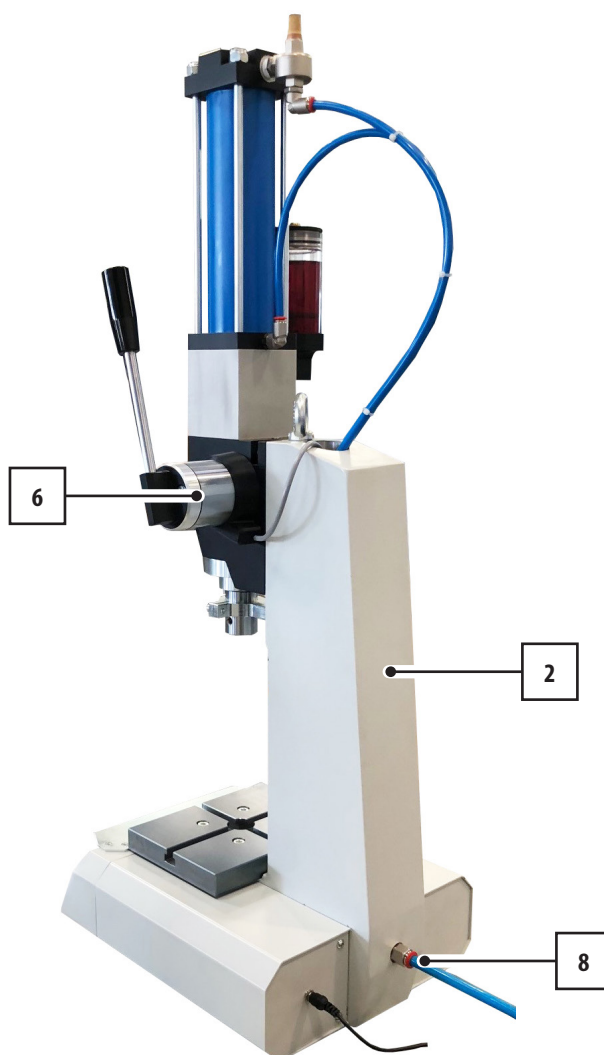
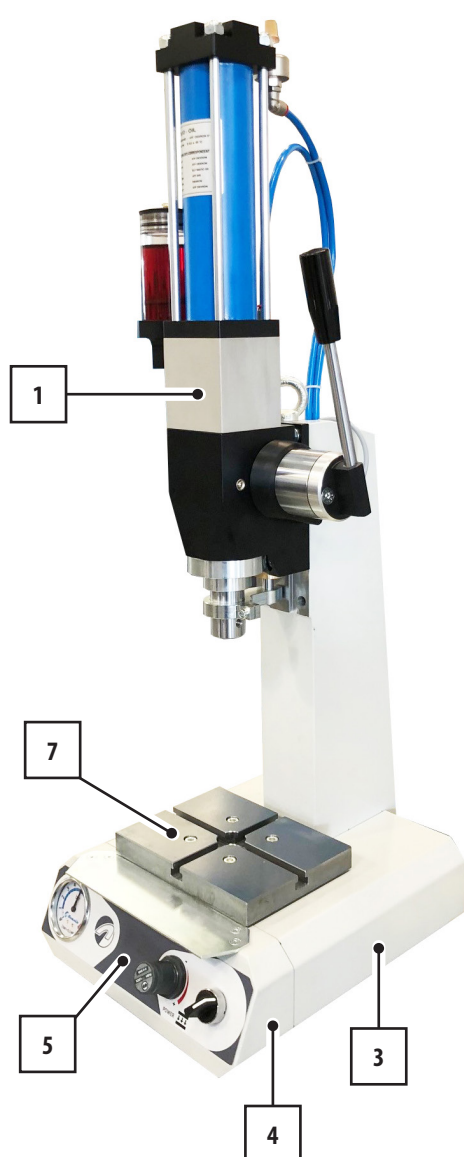
			MOPH 07	MOPH 15	MOPH 30	MOPH 50
CYLINDER CHARACTERISTICS	THRUST PARTS: (WORK C/SA FORCE) AIR-OIL UNIT OF	t.	0.7	1.5	3.0	5.0
	MOTOR FLUID	-	Compressed, filtered and lubricated air			
	WORK PRESSURE	bar	Max 6 bar			
	COIL SPRING RETURN STROKE C/SA FORCE	Kg = daN	7	6	5	5
	6 BAR WORK C/SA FORCE	Kg = daN	700	1500	3000	5000
	APPROACHING STROKE LEVER DRIVE C/SA FORCE	Kg = daN	2.5	2.5	2	2
	CLUTCH ENGAGEMENT LEVER DRIVE C/SA FORCE	Kg = daN	7	7	6	6
	WORK SPEED	mm/s	90	65	40	30
	MASS	Kg.	75	109	154	214
	WORK TEMPERATURE	°C	Max +60°C - Min -15°C			
	HUMIDITY	-	70%			
	SOUND EMISSION	dB	73 dB			

4.5.3. TECHNICAL DATA mod. MOPS

			MOPS 07	MOPS 15	MOPS 30	MOPS 50
CYLINDER CHARACTERISTICS	THRUST PARTS: (WORK C/SA FORCE) AIR-OIL UNIT OF	t.	0.7	1.5	3.0	5.0
	MOTOR FLUID	-	Compressed, filtered and lubricated air			
	WORK PRESSURE	bar	Max 6 bar			
	COIL SPRING RETURN STROKE C/SA FORCE	Kg = daN	7	6	5	5
	6 BAR WORK C/SA FORCE	Kg = daN	700	1500	3000	5000
	APPROACHING STROKE LEVER DRIVE C/SA FORCE	Kg = daN	2.5	2.5	2	2
	CLUTCH ENGAGEMENT LEVER DRIVE C/SA FORCE	Kg = daN	7	7	6	6
	WORK SPEED	mm/s	90	65	40	30
	MASS	Kg.	59	81	128	176
	WORK TEMPERATURE	°C	Max +60°C - Min -15°C			
	HUMIDITY	-	70%			
	SOUND EMISSION	dB	73 dB			

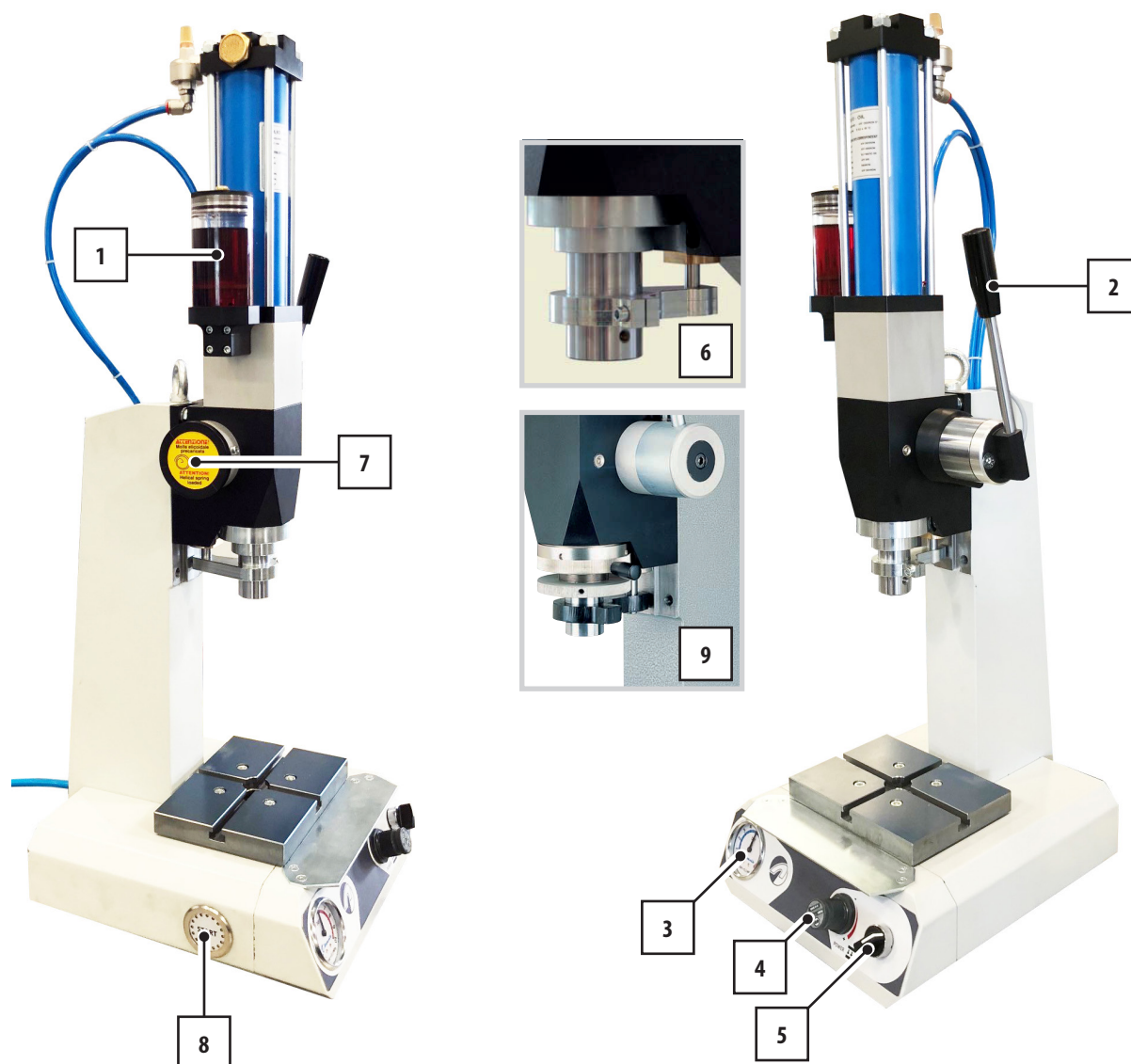
4.6. MAIN COMPONENTS

POS.	ELEMENT
1	AIR-OIL UNIT
2	UPRIGHT
3	SIDE CASING
4	FRONT CASING
5	CONTROL PANEL
6	CONTROL VALVE
7	WORK PLATE
8	AIR SYSTEM



4.6.1. DETAILS OF COMPONENTS

POS.	ELEMENT
1	OIL TANK
2	WORK STROKE APPROACH AND DRIVE LEVER
3	PRESSURE GAUGE
4	PRESSURE REGULATOR
5	"ON-OFF" SWITCH
6	ROD ANTI-ROTATION AND APPROACH STROKE LIMITATION BRACKET (T.D.C.)
7	RETURN SPRING ADJUSTMENT RING NUT
8	WORK START CONTROL BUTTON
9	LOCKING RING NUT (OPTIONAL)



4.7. TYPE OF OPERATION

Depending on the machine model, there are two types of operating modes:

STANDARD STROKE OPERATION	SHORT STROKE OPERATION
mod. MOP 07R - 15R - 30R - 50R	mod. MOP 07 - 15 - 30 - 50
mod. MOPH 07R - 15R - 30R - 50R	mod. MOPH 07 - 15 - 30 - 50
mod. MOPS 07R - 15R - 30R - 50R	mod. MOPS 07 - 15 - 30 - 50

4.7.1. STANDARD STROKE OPERATING CHARACTERISTICS

The standard stroke mode, with a clearance between tool and workpiece holder of more than 6mm, is controlled by a two-handed system that features, in addition to the clutch engagement lever, a button located on the opposite side of the machine.

In these conditions the operator has the possibility of modifying the total stroke of the rod defining the top dead centre precisely. Through the appropriate optional adjustment ring nut it is also possible to preset the bottom dead centre of the rod when processing requires it.

4.7.2. SHORT STROKE OPERATING CHARACTERISTICS

Short stroke operation involves a maximum clearance between tool and workpiece holder of 6mm. In these conditions the operating lever combined with the clutch engagement device guarantee the safety of the operator without the aid of additional safety devices.

4.8. WORK CYCLE

The machine is made up of various units that allow you to work on the parts you wish to process.

Below is a description of the work cycle steps:

STEP	DESCRIPTION
1	The operator manually positions the parts in the machine in the area of the work plate.
2	The operator runs the work cycle from the two-handed drive system which features, in addition to the clutch engagement lever, the button on the opposite side of the machine (standard stroke mode).
3	Once the necessary processing is completed, the operator removes the processed parts.

Chapter 5 TRANSPORT AND INSTALLATION

CHAPTER 5

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5. TRANSPORT AND INSTALLATION

5.1. INTRODUCTION

**ATTENTION!**

The lifting and handling operations must be carried out exclusively by specialised and trained personnel with the capability to carry out these activities.

To move the machine, follow the instructions and pictograms shown using suitable tools and equipment.

During installation the technicians of the ALFAMATIC s.r.l. must be placed side by side by the operators appointed to future maintenance and management of the machine.

The machine was designed in a way that makes it necessary to use a forklift during the packaging, transport and assembly phases.

ALFAMATIC s.r.l. has equipped the machine with appropriate hooking points on the structure for handling with a forklift.

5.2. PACKAGING

Depending on the transport distance, on the specific requests of the Customer, and on the time the supply remains in the packaging, the machine is shipped in the following ways:

- protective packaging with fastening of the machine on a wooden base (with possible protective box).

Shipping must be carried out with covered or curtained lorries depending on the type of load.



ATTENTION!

Before opening the packaging it is necessary to make sure it is intact and communicate any anomalies to ALFAMATIC s.r.l.

When receiving the machine, the customer must make sure no damage was caused by the mode of transport or by the staff assigned to the specific operations.

If damage is found, leave the packaging in the state it was found in and immediately request the competent shipping company to perform an assessment of the damage, then provide the competent transport insurance company and point of sale with a damage certificate.

After checking the integrity of the machine it is possible to remove the fastening screws from the wooden base and then proceed with handling as indicated in the next paragraph.

All packaging material must be kept for future transport.

In particular, if there is a base and/or a wooden case, it is necessary to preserve it well, in addition to the brackets that fasten the machine to the packaging.

The material must be stored in a suitable place so that it does not undergo deterioration that could be dangerous due to a reduced capacity of the packaging structure (ex. weakening of the wood due to constant humidity or parasites).

5.3. TRANSPORT AND HANDLING

ALFAMATIC s.r.l., depending on the mode of transport and type of machinery being shipped, uses packaging and fixings suitable to guarantee the integrity and preservation of the machine during transport.

The handling activities described in this paragraph must be carried out by personnel qualified for these operations: duly trained personnel to safely load, unload and handle packages using lifting equipment, forklift, and familiar with the accident prevention rules.



ATTENTION!

Delicate components and equipment must be packed in such a way that they cannot be damaged during transport.



ATTENTION!

ALFAMATIC s.r.l. will not be held liable for damage to property or persons, due to accidents caused by failure to comply with the instructions given in this and subsequent chapters.



ATTENTION!

The machine must be installed according to the layout agreed with the Manufacturer.

5.3.1. PRELIMINARY INFORMATION ON THE TRANSPORT AND HANDLING PHASE



ATTENTION!

Considering that the installation operations (including assembly and start-up) require specific knowledge of the machine, they may present risks for non-specialised personnel, hence the manufacturer requires the machine to be moved and installed, at the user customer site, exclusively by specialised personnel.

Before installing the machine and therefore before handling, every time, check that:

- load stability cannot be the cause of hazards and/or accidents;
- the equipment and logistic structures comply with the use (for example, they are suitable in relation to the maximum capacity) and are in perfect operating conditions;
- each operator stays away from suspended loads (transiting under suspended loads is forbidden);
- operators are provided with the appropriate personal protective equipment;
- the installation surface is sufficient, considering the additional space required for assembly;
- the utilities connection points are prepared according to the attached diagrams (and agreed with the Customer);
- the area prepared for installation and the access ways are clear of any obstructions;
- the height and width for transit are sufficient (always leave a distance of 1000 mm from walls, pillars and anything else that could be an impediment to maintenance or escape in case of need);
- the specific capacity of the floor is sufficient to support the weight of the machine.

Observe the precautions and warnings listed below in order to ensure stability, avoiding the risks associated with the movement of the machine.

- Do not improvise any manoeuvre that is not authorised by competent personnel
- Use a forklift for lifting and positioning.

Exclusively appoint trained personnel (slingers, crane operators, etc.) for these operations. If the dimensions of the load does not allow for sufficient visibility, it is mandatory to have a person in charge of signalling for the manoeuvring operator to supervise all of the handling phases.

5.3.2. UNLOADING AND HANDLING

Always make sure, each time before handling, that the lifting equipment and related tools are suitable for lifting the load being handled and for the necessary stability of the volume before lifting it.

**ATTENTION!**

The handling activities described in this paragraph must be carried out by personnel qualified for these operations: duly trained personnel to safely load, unload and handle packages using lifting equipment such as cranes or forklift, and familiar with the accident prevention rules.

There is a series of markings on the machine that accurately identify the lifting points for loading/unloading and those related to the subsequent handling on the ground.

**ATTENTION!**

ALFAMATIC s.r.l. will not be held liable for damage to property or persons, due to accidents caused by failure to comply with the instructions given in this and subsequent chapters.

**ATTENTION!**

If obstructions and/or the operational situation do not provide the operator with a perfect view, staff must be made stationed outside the range of action of the lifting equipment, with the task of signalling.

**ATTENTION!**

Never transit under suspended loads. Never handle the load over the staff operating in the site/facility.

**ATTENTION!**

The machine and its units must not be unloaded, handled, lifted, etc if the weather conditions are adverse, such as wind speeds above 0.3 m/minute.

5.3.3. TABLE OF UNITS AND WEIGHTS

The following table shows the weight information relative to handling the individual units that make up the machine.

		Machine model			
		MOP 07	MOP 15	MOP 30	MOP 50
AIR-OIL PRESS	Kg.	45	62	105	148
PACKAGING	Kg.				

		Machine model			
		MOPH 07	MOPH 15	MOPH 30	MOPH 50
AIR-OIL PRESS	Kg.	75	109	154	214
PACKAGING	Kg.				

		Machine model			
		MOPS 07	MOPS 15	MOPS 30	MOPS 50
AIR-OIL PRESS	Kg.	59	81	128	176
PACKAGING	Kg.				

The pages below describe the machine transport procedures.



IMPORTANT!

Check the overall weight: if the machine is combined or packed with other units, it is necessary to refer to the transport documents, and if these are not available, contact the Manufacturer.

5.4. TYPES OF TRANSPORT

The machine can be transported:

- in wooden crates;
- on a truck bed.

Whatever means of transport is used, the Manufacturer adopts suitable protection against atmospheric agents.



ATTENTION!

During machine handling operations, pay the utmost attention to protruding parts, such as mechanical parts, pipes and cables so that they do not suffer damage due to incorrect mechanical stress.



IMPORTANT!

In case of handling difficulties, ALFAMATIC s.r.l. is available for all necessary clarifications.







ATTENTION!

It is absolutely forbidden to use other systems to handle the machine, whether it is packed or not. ALFAMATIC s.r.l. is not responsible for injuries or damage caused by incorrectly moving the machine.

5.4.1. TRANSPORT WITH FORK LIFT

For machine transport, use the PPE stated in the table below:

REQUIRED PPE			
			

Before proceeding with transportation operations, check:


- that the involved area is clear;
- that there are no moving parts or tools on the packs being handled;
- the state of the devices set up for lifting;
- the capacity of the forklift that you intend to use (check the weights in the relative section of this manual);
- that the forks extend out of the front part of the load far enough to eliminate any risk of tipping;
- that the forks can be adequately arranged to prevent the machine from tipping over.



ATTENTION!

The machine is secured to the wooden deck with countersunk screws.

Then, do the following:

STEP	ACTION
1	<p>Attach the rope with safety hook to the eyebolt on the machine.</p> <div>  <p>ATTENTION! The hooking point is not in line with the centre of gravity of the machine, consequently the machine will tilt from the front when lifted.</p> </div>
2	Slowly lift the load a few centimetres and check its stability.
4	Tilt the upright slightly (towards the driver's seat) to aid the overturning moment and ensure greater stability of the load during transport.
5	Adjust the transport speed according to the flooring and the type of load.



IMPORTANT!

Observe the safety regulations in force in the Country of the end user, concerning the methods of use of the lifting equipment and/or devices.



ATTENTION!

During handling operations, extreme care must be taken to avoid tipping.

5.5. SET-UPS PROVIDED BY THE CUSTOMER

With the due exceptions established in the contract, the Customer user of the machine must provide:

- the facilities (including building works, such as foundations or ducts required, etc.).
- the electrical systems up to the power supply points of the machine, in compliance with the regulations in force in the country of installation and/or requested by the machine Manufacturer. All the technical specifications requested by the manufacturer are set forth in the sales contract. The Manufacturer declines all responsibility if the customer fails to guarantee the technical characteristics of the electrical system as required by the sales contract.
- the power supply for the machine, including the earthing cable, in accordance with the characteristics and tolerances required and specified herein.
- any auxiliary services adapted to the needs of the plant (such as the compressed air network, etc.). The requested characteristics are set forth in the sales contract.
- any safety devices upstream and downstream of the power supply lines (such as differential switches, earthing systems, safety valves, etc.) provided for by the legislation in force in the country of installation.
- commercial tools and consumables required for assembly and installation.
- lubricants required for starting the machine.
- the supply of products for production purposes.
- the appropriate lifting equipment for the parts that make up the machine, in accordance with the loads being handled.

The above data is described in the respective paragraphs.



ATTENTION!

ALFAMATIC s.r.l. will not be held liable for malfunctions if the power supply does not correspond to the specifications required for machine installation.

5.6. PLACE OF INSTALLATION

This section describes the physical characteristics and preparation procedures for the room where the machine will be placed.

The installation area and the access ways must be prepared by clearing them of any obstruction of materials or machines within the time required for assembly.

For installation it is necessary to provide an area suitable for the dimensions of the machine and lifting equipment, paying attention to any obstacles (other machines, walls or similar) along the route that the handling vehicles must take.

The place of installation must:

- have emergency escape routes;
- have a floor that is able to support the weight of the machine and be level;
- be easy to clean to ensure adequate hygiene conditions;
- have transit and access ways.

ALFAMATIC s.r.l. does not authorise any other type of installation other than the layout shown here.

The area for installation and use of the machine must be sufficiently large to provide:

- operational space,
- transit routes,
- escape routes,
- maintenance space.

However, it is a specific responsibility of the customer to verify that the final installation is in compliance with the regulations in force.

The storey/flooring of the site chosen for installation and use must be smooth, levelled and compliant with the specifications of the application and able to withstand the weight specifications of the machine as per the static and dynamic loads provided.



ATTENTION!

The structure of the machine must not be unloaded, handled, lifted, etc if the weather conditions are adverse (wind speeds above 0.5 m/minute).



ATTENTION!

Since the machine has to be used inside a production plant, is not equipped with its own fire protection system. The user must assess the need for an adequate fire-fighting system for the machine/site where the machine is installed and used.

5.6.1. GROUND SIGNALS

One of the duties of the employer-end user is to also carry out the overall risk assessment in the work environment where the machine is installed in relation to passageways, escape routes (in compliance with the national regulations in force in such environments).

On the basis of this analysis, the employer will adopt any technical or procedural solutions in order to establish an internal circulation plan to forbid staff access to the restricted areas.

With regard to machines supplied by ALFAMATIC s.r.l., the employer-user must trace markings on the ground (yellow stripes) for the immediate identification of the areas where unauthorised staff is not allowed to transit or stay.



ATTENTION!

The area marked off with yellow stripes is where unauthorised staff is not allowed to transit or stay. This area must also be kept clear of any materials.

5.6.2. ADMISSIBLE ENVIRONMENTAL CONDITIONS

The environment where the machine is installed and used is an indoor area protected from atmospheric agents such as rain, hail, snow, fog, particulate, combustible dust and must not be an environment that is classified and protected against aggressive agents such as corrosive vapours or excessive sources of heat.

ADMISSIBLE ENVIRONMENTAL CONDITIONS	
ROOM TEMPERATURE	Between -15°C and +60°C
RELATIVE HUMIDITY	Up to 70%
LIGHTING	200 Lux (provided by the Customer)

It is forbidden to use the machine, its associated control systems and drive equipment in conditions other than those listed.



ATTENTION!

This machine cannot operate in rooms classified as environments with explosive atmospheres or risk of fire.

ATTENTION!

The machine's area of action and the work areas:

- must NEVER be occupied by objects that can create an obstruction;
- must be kept clean in order to prevent the floor from becoming slippery, creating the danger of slipping and falling;
- must have suitable lighting;
- only allow access to authorised maintenance staff.
- it is the user's responsibility to highlight these forbidden actions with appropriate signs displayed around the machine.

If these rules are not observed, the Manufacturer will not be held liable whatsoever.

If these requirements are not fulfilled, the machine cannot be started up.

**ATTENTION!**

Environmental conditions other than those specified may cause serious damage to the machine and in particular to electrical and electronic equipment.

Positioning the machine in areas that do not fulfil these conditions will void the warranty for the parts to be replaced.

Even the unauthorised replacement of one or more parts of the machine, the use of other accessories, tools, consumables other than those prescribed by the manufacturer, may represent an accident hazard and relieve the manufacturer of any civil and criminal liability.

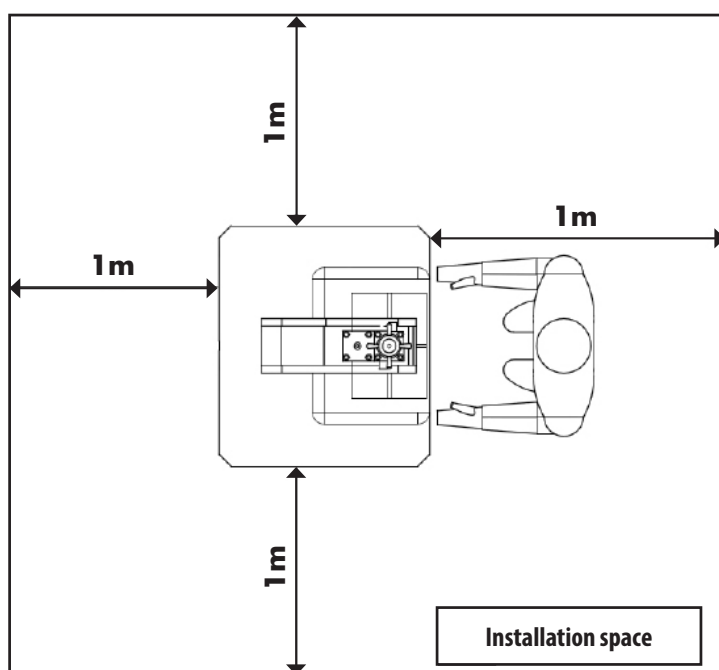
5.7. INSTALLATION

5.7.1. PLACEMENT

Correctly positioning the machine is an important step for the correct operation of the machine and of the production line it is inserted in.

The machine must be placed following some general rules:

- identifying its correct position within the production line;
- positioning of the machine (the floor that the machine will stand on must be completely level, so as to avoid any sloping);
- checking full machine stability and alignment;
- checking full operator access to the machine.

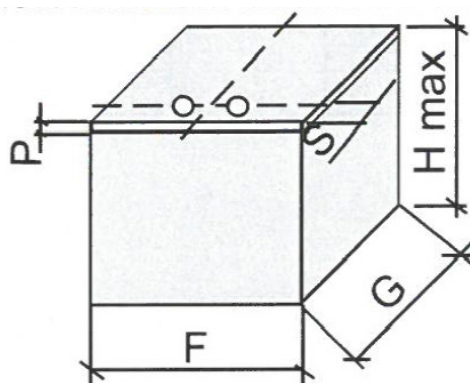


5.7.2. MACHINE SUPPORT BASE

The user must provide a support base (supporting table or platform) that is proportional to the size, weight, structure and height of the machine to be installed and that is perfectly horizontal (level).

Below are the dimensions of the support base referring to a surface built with Fe42B steel laminate:

Model machine	Machine weight mm	F mm	G mm	M mm	P mm	S mm	H max mm
MOP 07	45	600	500	M8	10	50	900
MOP 15	62	600	500	M8	10	50	900
MOP 30	105	600	500	M10	15	100	900
MOP 50	148	600	600	M10	15	100	900
MOPH 07	75	600	600	M8	10	100	900
MOPH 15	109	600	800	M8	15	100	900
MOPH 30	154	600	800	M10	15	150	900
MOPH 50	214	600	800	M10	15	150	900
MOPS 07	59	600	600	M8	10	100	900
MOPS 15	81	600	600	M8	15	150	900
MOPS 30	128	600	800	M10	15	150	900
MOPS 50	176	600	800	M10	15	200	900



5.7.3. INSTALLATION PROCEDURE

The press is supplied to the customer/user ready for use.

The user must connect the press to the power supply (See "Electrical connection" paragraph).

The user must connect the press to the compressed air supply (See "Air connection" paragraph).

5.8. CONNECTIONS

To start up the machine, the necessary junctions and connections to the local networks must be provided:

- electrical connection (including the earthing connection), complying with the regulations in force in the country of installation;
- air connection.

It is the user's responsibility to guarantee the required connection characteristics.

5.8.1. ELECTRICAL CONNECTION



ATTENTION!

Before performing any electrical connection operation, it is important to check that the machine is off. Therefore place the main power switch on "0 - OFF".



ATTENTION!

Make sure the customer power supply line has been previously cut off.



ATTENTION!

The connections to the plant's electricity network must be set up by specialised Customer staff (electrical maintenance technician).

The buyer is in charge of the conformity of the connection between machine and earthing system.

Before setting up the electrical connection, check that:

- the maintenance technician is aware of the regulations in force in the country of installation;
- the frequency and voltage values of the power supply of the machine match the values of the power supply network;
- the size of the electrical cables is suitable for the absorption;
- the electrical power supply line is able to support the machine's maximum absorption;
- the circuit is grounded in compliance with standards EN 60204-1 ;
- the materials used in the earthing system are adequately solid or feature adequate mechanical protection.



ATTENTION!

Never work with wet hands or objects. In case of fire, do not use water on the electrical components.

It is possible to supply voltage to the machine by connecting the power cable directly to a suitable electrical outlet.

For the characteristics of the electrical power supply it is necessary to refer to the data provided on the machine's CE plate.

For the connection to the electrical network, follow the procedure below:

STEP	ACTION
1	Connect the power supply plug to a power outlet in the factory.

5.8.2. AIR CONNECTION

The machine is equipped with air controls.

Before setting up the air connection, check that:

- the installed compressed air supply system guarantees the machine with the amount of air at the right pressure;
- the connection is set up with an open / close valve equipped with a rapid evacuation valve;
- the compressed air tank is sized correctly.

The air connection must be set up by connecting the main line to the machine circuit.

The customer must also guarantee an air supply with the characteristics listed in chapter "Machine description" of this manual.




ATTENTION!

NEVER EXCEED 6 BAR OF PRESSURE IN THE MACHINE'S AIR SYSTEM.



ATTENTION!

It is the specific responsibility of the user/customer to ensure the correct connection to the main air treatment unit with rigid pipes, firmly secured to avoid a whip effect or protected with other guards to avoid or retain any "jet" leakage.

AIR CONNECTION	
Operator qualification	Mechanical maintenance technician
Required PPE	
Tools to be used	Manual tools



IMPORTANT!

The compressed air being used must be filtered and lubricated.

Filter fitted with 20 micron filter element and automatic condensate drain.

Micro-mist lubricator and lubricant with viscosity 2° - 3° Engler at 50°C.

For the connection to the air network, follow the procedure below:

STEP	ACTION
1	Check that the connection pipes have the characteristics suitable to withstand the maximum network pressure.
2	Check that the connection pipes are clean during connection set-up to prevent foreign bodies from entering the circuits and compromising the correct operation of the machine.
3	Check that the connection fittings used for the connection to the network have an inner clearance equal to the internal diameter of the connection pipe. Any obstructions or bottlenecks affect the speed of execution and correct functioning
4	Connect the pipe with an internal diameter of 6mm (external diameter 8mm) to the machine in the air intake hole located on the upright at the rear, removing the cap provided on delivery.
5	Connect the machine to the distribution network with a pipe.

5.9. FINAL TESTING

Below are the tests to be carried out before placing the machine in production.

CHECK	OPERATION	ACTION
Check that the lever and drive button work simultaneously (where required).	Use the lever and the button alternately.	The work stroke must not start up.
Check the "ON-OFF" switch.	Place the button on "OFF".	The work stroke must not start up.
Check the pressure regulator.	Lower the pressure from 6 to 2 bar.	There must not be any leaks from the regulator.
Force - work stroke value reading.	Take a reading that the pressure is at 6 bar.	-
Dimensional check.	Check that the rod and work surface are perpendicular	-
Check operation at the minimum pressure value.	Check that the pressure is 2.5 bar.	-

5.10. DISMANTLING AND DISPOSAL

ATTENTION!



Decommissioning and dismantling operations must be assigned to staff specialised in these activities. In particular, only the person in charge of dismantling and disposal at the end of the service life can:

- mechanically and electrically disconnect the parts according to disassembly instructions and design diagrams.
- transport the parts from the plant site to the disposal centre for separation of the parts.

For decommissioning in particular, the following operations must be taken into consideration as well as the indications provided in the manuals of the equipment, machinery, partly-completed machinery and components provided by ALFAMATIC s.r.l. as an integral part of its own instructions and warnings manual.

The materials that the machine is made of are essentially:

- painted, plastic-coated or galvanised ferritic steel;
- 300/400 series stainless steel;
- polyethylene plastic;
- elastomers, PTFE, graphite;
- oil for gears;
- grease for lubrication;
- electric motors;
- electrical cables with relative sheaths;
- electronic control and actuation devices.
- etc.

**IMPORTANT!**

The machine does not contain components or dangerous substances that require special removal procedures.

The operator dismantling and disposing of the machine at the end of the service life operates on the whole machine only and exclusively during the removal and disposal of machinery at the end of its service life.

Observe the procedure described below for decommissioning, dismantling and removing the machine at the end of its operational life; for decommissioning, the following operations must be taken into consideration as well as the indications provided in the manuals of the equipment, machinery, partly-completed machinery and components provided by ALFAMATIC s.r.l. as an integral part of its own instructions and warnings manual.

STEP	ACTION
1	Create enough space around the machine to perform all the movements without risk to staff by preparing the appropriate equipment and operating means such as forklifts, cranes etc.
2	Disconnect the power supplies by the machine's power supply cut-off devices and lock them in the open position (refer to the wiring, air and oil diagrams - if applicable - for more information).
3	Disconnect the power supply cable from the disconnecting device (first disconnect the power conductors and then the earth one).
4	Disassemble the machine from the top down and be particularly careful of machine units dropping due to gravity and to all parts where there may be product residue.
5	Separate, as much as possible, the various components by type of materials that must be disposed of through separate collection. Assign the disposal of the materials obtained from the demolition to authorised companies.
6	Remove the various parts of the machine from the work area.

**IMPORTANT!**

For the disassembly of commercial parts (machines and/ or units) or sub-supplied material that are part of the machine supplied by ALFAMATIC s.r.l., please refer to the relative supplier manual.

**IMPORTANT!**

After dismantling the machine according to the disassembly procedure above, the various materials must be separated in accordance with the regulations of the country where the machine will be eliminated.



According to directive "WEEE" 2012/19/EU, if the purchased component/equipment is marked with the following symbol of a crossed-out wheelie bin, this means that at the end of its service life it must be collected separately from other waste.

**IMPORTANT!**

A reminder to observe the laws in force concerning the disposal of mineral oils and processing residues.

CHAPTER 5

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Chapter 6 METHOD OF USE

CHAPTER 6

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6. METHOD OF USE

During the machine's work phases, the person in charge of running the machine must always operate it in compliance with the provided safety devices, checking:

- the correct positioning of the safety devices;
- that the safety devices are working correctly;
- observance of the personal safety standards.

Verify that the work cycle takes place in full efficiency, guaranteeing maximum productivity, checking:

- integrity and operation of the main parts of the machine;
- the state of wear of the work equipment to avoid interrupting the work cycle;
- that the work parameters are the optimal ones for the type of material and processing being performed;
- that all of the material prepared for processing is uniform.

6.1. CONTROLS

The control zone is the area where the operators can carry out the operations to command, control and adjust the machine functions, from the appropriate control panels.

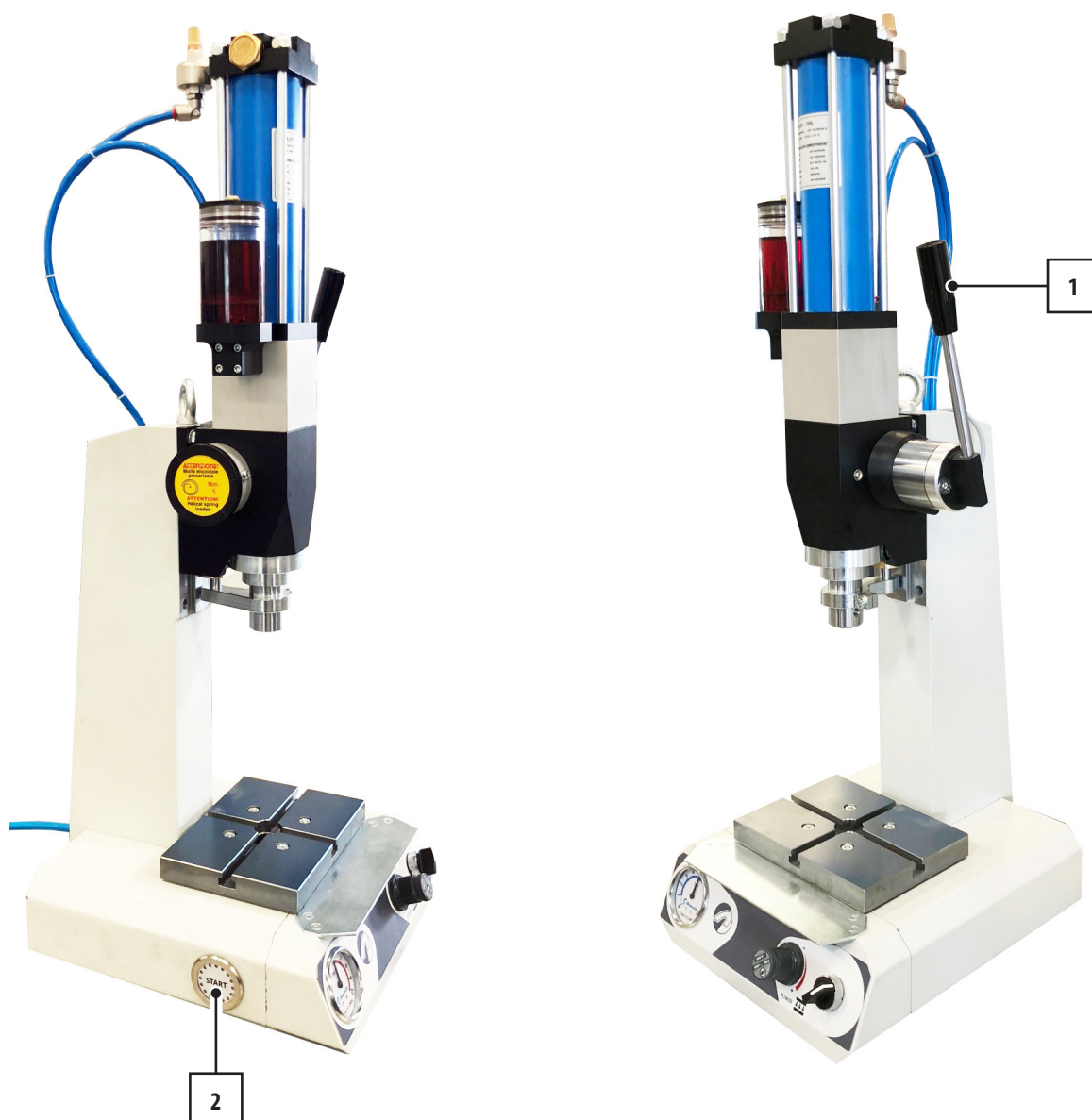
Before using the machine it is important to have a perfect knowledge of:

- the operator workstation;
- all of its controls and their main functions.

The control devices are at the front of the machine.

For the location of the controls, refer to the figure below:

POS.	ELEMENT
1	WORK STROKE APPROACH AND DRIVE LEVER
2	WORK START CONTROL BUTTON



6.1.1. OPERATOR WORKSTATION

The production operator must guard the machine by placing him/herself at the front of it, with all of the controls within reach.

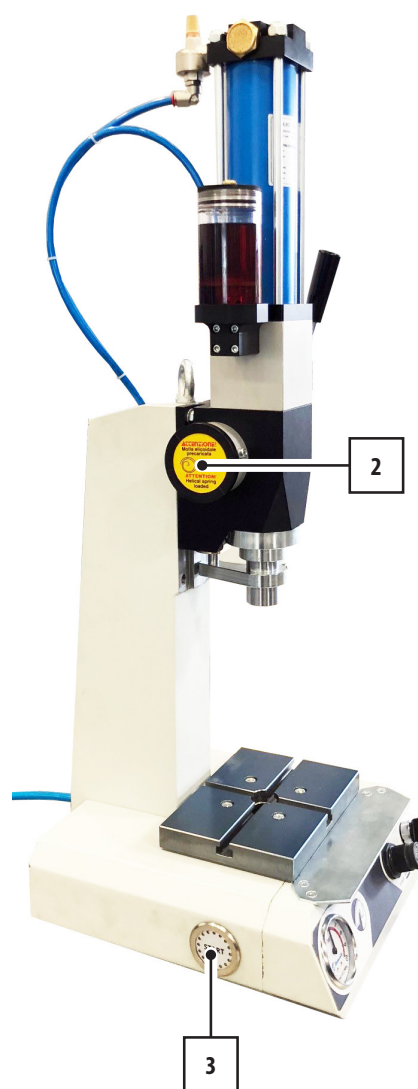


OPERATOR WORKSTATION

6.1.2. MAIN CONTROLS

The following elements are installed on the machine:

POS.	ELEMENT	DESCRIPTION
1	WORK STROKE APPROACH AND DRIVE LEVER	The first rotation of the lever moves the rod closer. Further rotation engages the clutch which starts the air-oil unit and therefore the working stroke
2	RETURN SPRING ADJUSTMENT RING NUT	Clockwise increases the return spring preload. Anti-clockwise decreases the return spring preload.
3	WORK START CONTROL BUTTON	This starts the work stroke when pressed at the same time as the operating lever.
4	WORK STROKE PRESSURE REGULATOR	Turn the knob to adjust the work stroke pressure. Clockwise increases the pressure (max 6bar). Anti-clockwise decreases the pressure.
5	"ON-OFF" SWITCH	In the ON position, this starts the machine. In the OFF position, this stops the machine.



6.2. OPERATING PROCEDURES

6.2.1. PRELIMINARY CONTROLS

Before starting the machine it is necessary to run adequate preliminary checks to avoid malfunctions or damage to the machine:

- make sure all of the electrical wires are connected correctly;
- make sure that the applied electrical characteristics and the data on the CE plate match;
- make sure there is no material inside the machine.
- make sure that the work stroke pressure is **max 6 bar**.
- check that the level indicator marks the right amount of oil in the power unit
- check the stroke measurement (excluding short stroke models).

6.2.2. MACHINE START-UP PROCEDURE

The machine cycle is started by operating the manual approach lever and the work command button to run a single work cycle.

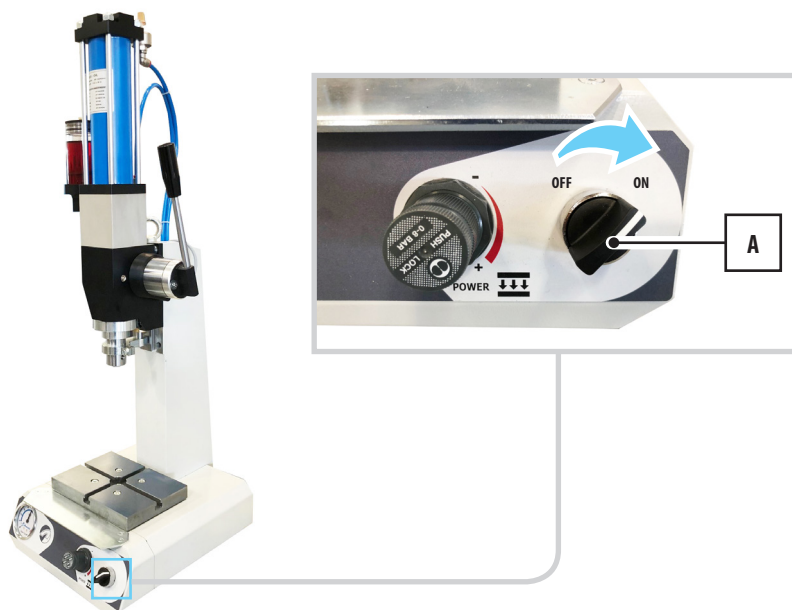


ATTENTION!

Any change in operating conditions (speed change) must be carried out with the machine stopped.

To start the machine proceed as described below:

STEP	ACTION
1	Turn selector "A" to "ON".



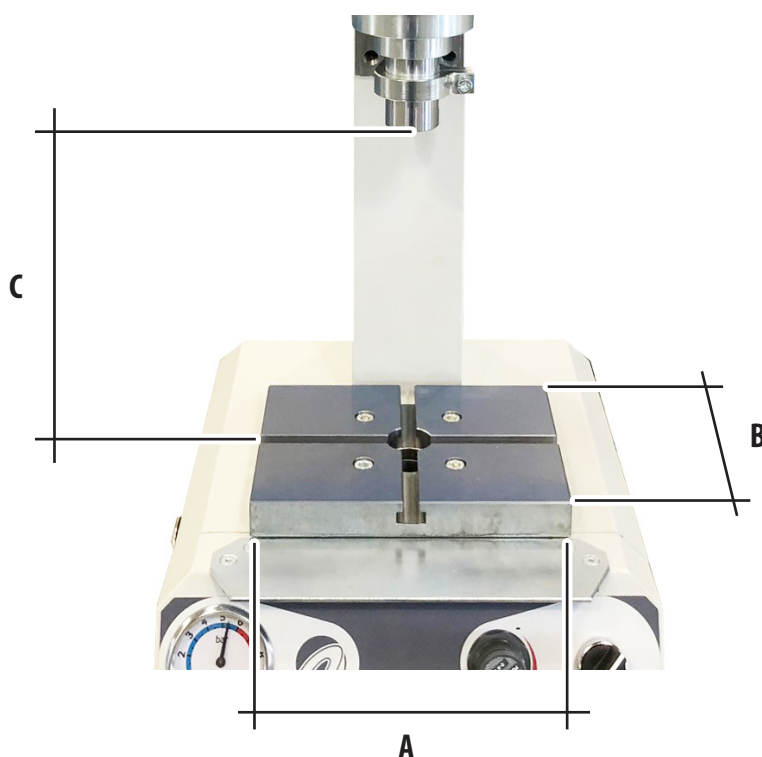
6.2.3. WORK AREA

Below are the work dimensions based on the machine model:

		Machine model			
		MOP 07	MOP 15	MOP 30	MOP 50
A	mm	180	200	220	300
B	mm	100	117	150	190
C	mm	150	150	160	200




		Machine model			
		MOPH 07	MOPH 15	MOPH 30	MOPH 50
A	mm	180	200	220	300
B	mm	100	140	190	190
C	mm	150	150	160	250

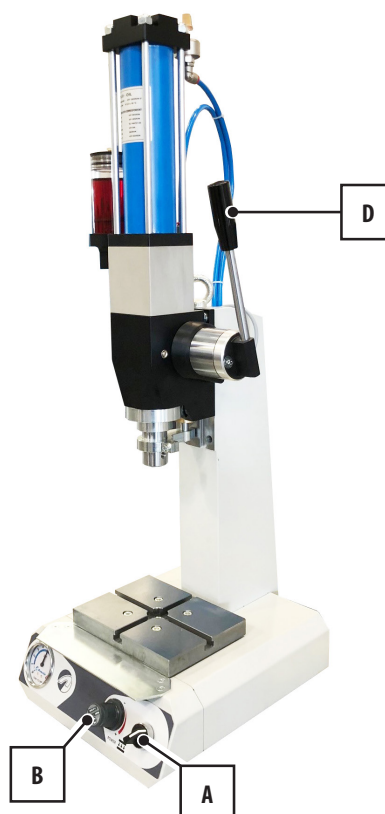
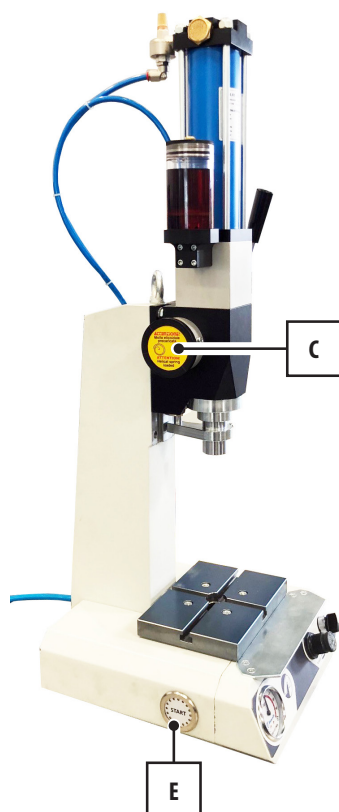
		Machine model			
		MOPS 07	MOPS 15	MOPS 30	MOPS 50
A	mm	180	200	220	300
B	mm	100	140	190	190
C	mm	150	150	160	250



6.2.4. WORK CYCLE PROCEDURE

To start the work cycle proceed as described below:

STEP	ACTION
1	Turn selector "A" to "ON".
2	Adjust the work stroke pressure from regulator "B".  ATTENTION! NEVER EXCEED 6 bar.
3	Preload the return spring through the special adjustment ring nut "C" based on the weight of the applied tool.  IMPORTANT! Insufficient preloading will prevent the rod from retracting.
4	Load the workpiece.
5	Operate the manual approach lever "D" which, once the clutch engagement force is overcome, starts the work stroke.
6	Press the work start control button "E".  IMPORTANT! when button "E" is pressed when lever "D" engages, it is possible to start the work stroke.
7	Release work start control button "E" and manual approach lever "D" to finish the work cycle.
8	Unload the processed piece.

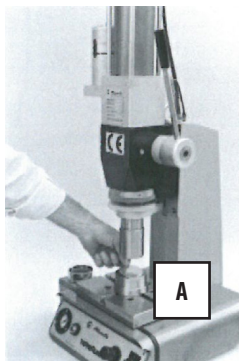
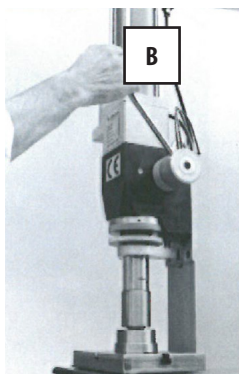
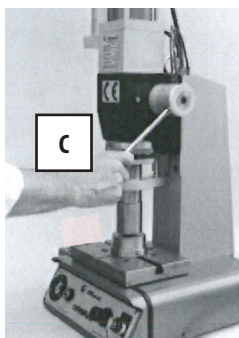




6.2.5. STANDARD STROKE OPERATING PROCEDURE

The standard stroke procedure is in the following models:

mod. MOP 07R - 15R - 30R - 50R / MOPH 07R - 15R - 30R - 50R / MOPS 07R - 15R - 30R - 50R

Perform the operating procedure as shown below:

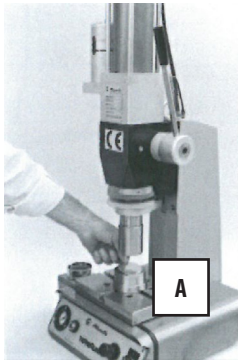
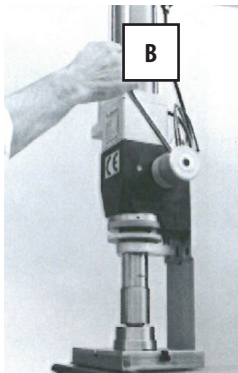
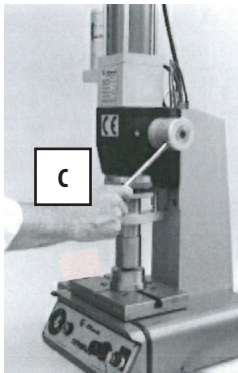
STEP	ACTION	IMAGE
1	Position the workpiece in work area "A".	
2	Lower lever "B" for manual approach stroke.	
3	Press against the piece with the lever for the clutch engagement stroke.	
4	Press the button on side "C" to start the work stroke (air-oil).	
 ATTENTION! Operations 3 and 4 need to be carried out with a maximum 2-second delay from each other, so that the machine can perform the required operation.		
5	Release lever "B" or the side button "C" to return the ring nut back in the initial position.	

6.2.6. SHORT STROKE OPERATING PROCEDURE

The standard stroke procedure is in the following models:

mod. MOP 07 - 15 - 30 - 50 / MOPH 07 - 15 - 30 - 50 / MOPS 07 - 15 - 30 - 50

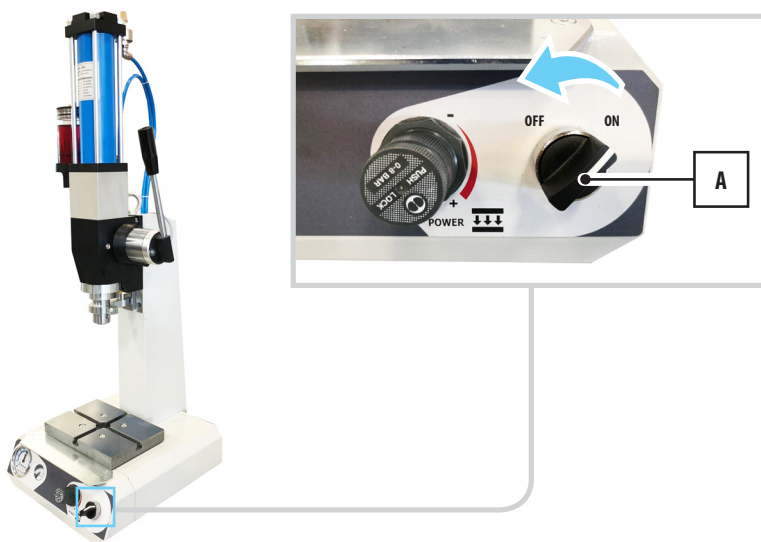
Perform the operating procedure as shown below:

STEP	ACTION	IMAGE
1	Position the workpiece in work area "A".	
2	Lower lever "B" for manual approach stroke.	
3	Press against the piece with the lever for the clutch engagement stroke and work cycle start.	
4	Release lever "B" or the side button "C" to return the ring nut back in the initial position.	

6.2.7. STOP PROCEDURE

To stop the machine proceed as described below:

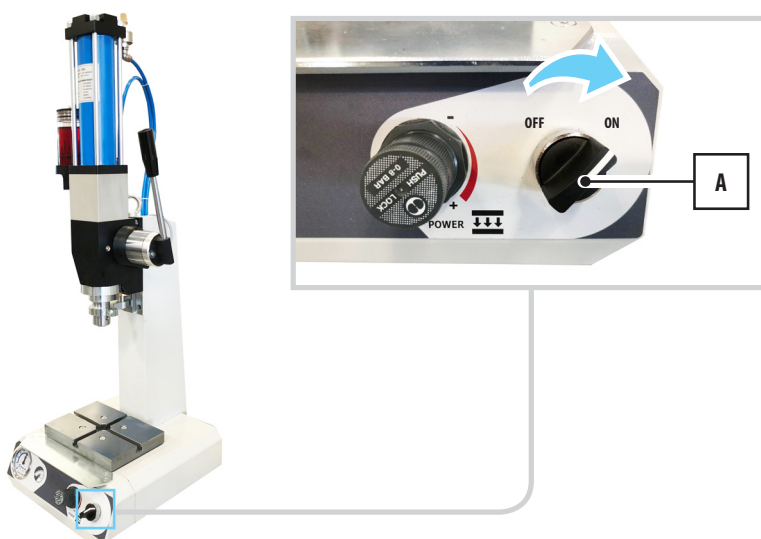
STEP	ACTION
1	Turn selector "A" to "OFF".



6.2.8. RE-STARTING AFTER A FAILURE

To restart the machine after a failure, proceed as follows:

STEP	ACTION
1	Turn selector "A" to "ON".


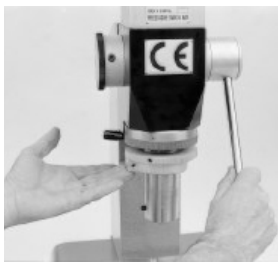

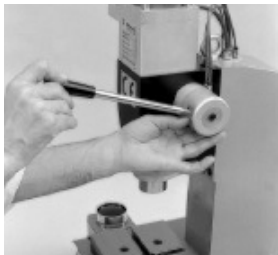




6.3. ADJUSTMENTS

6.3.1. APPROACH STROKE ADJUSTMENT (T.D.C.)

The bracket positions the work tool by limiting the return stroke of the rod.

Perform the adjustment procedure as shown below:

STEP	ACTION	IMAGE
1	Use the drive lever to move the rod to the required point.	
2	Loosen the bracket screw to detach the bracket from the press rod.	
3	Now push the bracket, which can now slide axially along the rod, all the way to the top.	
4	Tighten the relative screw holding the rod in the pre-established point.	
5	Unscrew the drive lever to place it back in the original position.	
6	Turn the guard clockwise until the fastening hole is found, and guarantees the lever with an angle of close to 120° in relation to the work surface.	

STEP	ACTION	IMAGE
7	Tighten the drive lever back up again.	

6.4. UTENSILS/MOULDS THAT CAN BE APPLIED TO THE MACHINE

The machine can be equipped with tools/moulds of one's own production to be connected to the moving part and must weigh 25% less than the pressure/force adjusted on the approach stroke.

Below is the maximum weight for the applicable tools:

		Machine model			
		MOP 07	MOP 15	MOP 30	MOP 50
WEIGHT OF APPLICABLE TOOL	Kg.	0.7	1.3	1.8	

		Machine model			
		MOPH 07	MOPH 15	MOPH 30	MOPH 50
WEIGHT OF APPLICABLE TOOL	Kg.	0.7	1.3	1.8	

		Machine model			
		MOPS 07	MOPS 15	MOPS 30	MOPS 50
WEIGHT OF APPLICABLE TOOL	Kg.	0.7	1.3	1.8	

6.5. FAILURES AND POSSIBLE SOLUTION

If malfunctions occur when commissioning the machine, perform the following checks:

Causes	Solutions
The work stroke does not start when the command is given.	Check that the "ON-OFF" switch is in the correct position and that the devices dedicated to this function are used correctly.
The work stroke is only partially completed when the command is given.	Check that the level of oil in the tank is within the set range.
When the work is finished, the rod cannot retract completely or with great difficulty.	Check the preload of the return spring and that the weight is compatible with the type of machine being used.



ATTENTION!

If complex damage occurs on the machine, contact ALFAMATIC s.r.l.

CHAPTER 6

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Chapter 7 MAINTENANCE

CHAPTER 7

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7. MAINTENANCE

7.1. INTRODUCTION



ATTENTION!

Maintenance operations must be carried out by qualified and authorised staff.

Machine maintenance includes activities (inspection, verification, control, adjustment and replacement) that are necessary with normal use of the machine.

For good maintenance:

- Only use original parts, tools that are suitable for the purpose and are in good conditions.
- Observe the frequency of the activities as stated in the scheduled maintenance manual (preventive and periodic). The frequency (expressed in time or in work cycles) of the activities is stated as the maximum acceptable; therefore it must not be extended but it can be shortened.
- Good preventive maintenance requires constant attention and continuous monitoring of the machine. Promptly check the cause of any anomalies such as excessive noise, overheating, fluid leaks, etc. ... and fix them.
- Promptly removing any causes of anomaly or malfunction avoids further damage to the equipment and ensures the safety of the operators.

If you have any doubts operation is forbidden. Contact the Manufacturer for the necessary information.

Machine maintenance staff must be well trained and must have extensive knowledge of accident prevention regulations; unauthorised staff must remain outside the work area during these activities.

Even the machine cleaning and adjustment activities are carried out only and exclusively during maintenance and with the machine stopped and de-energised with the electrical panel cut off as reported in the use and maintenance manual.

Machine maintenance activities are divided, from an operational point of view, into two main categories:

SCHEDULED MAINTENANCE	These are all those operations that the operator must carry out, in a preventive manner, to guarantee the smooth operation of the machine over time; scheduled maintenance includes inspection, control, adjustment, cleaning and lubrication.
UNSCHEDULED MAINTENANCE	These are all those operations that the operator must carry out when the machine needs it. Unscheduled maintenance includes overhauling, repair work, restoring nominal operating conditions or replacing faulty, defective or worn units.

7.2. SAFETY WARNINGS



ATTENTION!

For maintenance activities, de-energise (electric and air) the machine.



ATTENTION!

When the machine is being serviced, to prevent it from being started up accidentally, press the emergency push-button and display signs saying:

"ATTENTION! MACHINE UNDERGOING MAINTENANCE".

- Maintenance staff must wear all the necessary personal protective equipment (gloves, glasses, overalls) for the activity being performed.
- During maintenance operations unauthorised staff must remain outside of this work area.
- If the activity requires guards to be taken down, secure the work area and report no entry to persons not involved in the maintenance work.

The need to place the machine in operating conditions and/or with disabled protections requires adequate competence and knowledge, and extreme care by the maintenance technician who must be properly trained on possible and present risks.

The accident prevention precautions, contained in this paragraph, must always be strictly observed, during machine maintenance, in order to avoid personal injury and damage to equipment:

- Before proceeding with any maintenance activity, make sure the energy sources are disconnected (electric current, compressed air, hydraulic energy, etc.).
- Perform the operations only and exclusively with the machine stopped and de-energised.
- Lock the electrical panels and the air supply tap.
- Display the specific warning signs such as: APPLIANCE UNDERGOING MAINTENANCE - DO NOT TURN ON THE POWER SUPPLY, WORK IN PROGRESS - DO NOT SWITCH ON or DO NOT START-UP displayed on the main switch and the access areas of the machine.
- After de-energising the electrical panel, fence off the panel whenever it is necessary to work on it with the doors open.
- Perform the operations (Mechanical, Electrical, Fluid) that you are responsible and authorised for.
- Be able to use the most suitable and adequate equipment for fault searching and must know
- the most appropriate equipment for maintenance activities.

To perform certain maintenance operations, it may be necessary for the protections and safety devices to be deactivated and to open the guards. In this case the appointed staff is exposed to dangerous conditions and it is therefore necessary to strictly observe the following rules:



ATTENTION!

Staff in charge of carrying out maintenance activities must be authorised and specifically instructed on the safety and operational procedures to be followed, on the dangerous situations that could arise and on the correct methods to avoid them.



IMPORTANT!

During these operations staff must work with the utmost care and operate with extreme caution.

7.3. TESTING AFTER MAINTENANCE

At the end of the maintenance activities, the person in charge of them must carry out, in conjunction with the safety manager, a complete test of machine operation and all of its safety devices. This test must be formalised with a written report, signed by the two managers and kept in the Company's archives. Prior to the test all maintenance staff must leave the area and it must be ensured that all tools, rags, etc. have been removed.

7.4. SCHEDULED MAINTENANCE

When delivered to the user the machine is already adjusted to work correctly; however, to guarantee its good functioning over time, periodic and preventive checks and maintenance must be carried out.

Scheduled maintenance includes inspections, controls and interventions to prevent failures, by monitoring:

- the machine's mechanical conditions,
- machine lubrication,
- cleaning the machine.





The following tables list a series of checks and interventions to be performed according to a recommended frequency. The frequency of the scheduled maintenance operations refers to normal operating conditions, namely according to the intended conditions of use.

7.4.1. SCHEDULED MAINTENANCE TABLES

OPERATION	FREQUENCY			
	Daily	1 month	2 months	6 months
Check the two-handed control on the side of the machine.	♦			
Check the "ON-OFF" switch at the front of the machine.	♦			
Visually check the integrity of all machine protection devices.	♦			
Visually check the state of wear and cleanliness.	♦			
Check and drain any condensate that deposited in the accumulator of the plant that supplies the press.	♦			
Check the state of wear of the insulation (connection cables, connectors).		♦		
Make sure the adjustments are working properly.		♦		
Make sure the supply compressed air is sufficiently lubricated.		♦		
Check the amount of oil in the power unit.		♦		
Make sure the panel terminals are tight and that there is no oxidation.				♦

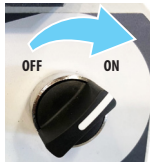
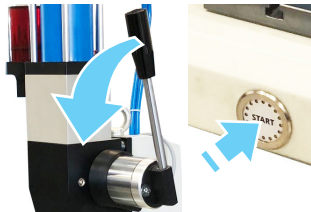
7.4.2. TWO-HANDED COMMAND CONTROL PROCEDURE

Check the two-handed control as described below:

STEP	ACTION	IMAGE
1	Pull the drive lever until the clutch engages. The work stroke must not start.	
2	Press the button on the side of the machine. The work stroke must not start.	
3	Perform steps 1 and 2 at the same time. The work stroke must start.	
4	Release the button on the side of the machine. The work stroke must switch off	
3	Perform steps 1 and 2 at the same time. The work stroke must start.	
4	Release the drive lever. The work stroke must switch off	

7.4.3. "ON-OFF" SWITCH CONTROL PROCEDURE

Check the "ON-OFF" switch as described below:

STEP	ACTION	IMAGE
1	Place the switch on "ON".	
2	Pull the drive lever and press the button on the side of the machine (if any). The work stroke must not start.	

7.4.4. CLEANING THE MACHINE



ATTENTION!

Before starting any cleaning operation on the machine, disconnect and padlock all the energy sources, and place the mobile units that compose it in safe conditions.

Display the sign "Machine undergoing maintenance - do not turn on the power supply" on the main switch.

IT IS FORBIDDEN for cleaners to remove the guards and protection devices from the machine.

Perform the cleaning cycle at the following frequencies:

FREQUENCY	TYPE OF TRIGGER
Weekly	<ul style="list-style-type: none"> Clean every part of the machine.

7.4.5. LUBRICATION


FREQUENCY	TYPE OF TRIGGER
Every time the press is taken down	Lubricate all moving parts.

7.4.5.1. OIL TOP-UP

**ATTENTION!**

With MOP series machines, if the rod does not act on the control lever, this means it is in the T.D.C. (Rod anti-rotation and approach stroke limitation bracket) (defined correct preload of the return spring). Oil topping up operations must be carried out in this condition.

Top up the oil as described below:

STEP	ACTION	IMAGE
1	Cut off the main current of the machine.	
2	Cut off the pressure to the machine.	
3	Remove the cap on the top of the tank by unscrewing the locking nut anti-clockwise.	
4	Pour the oil into the tank respecting the range marked on the tank and the type indicated in the table affixed to the machine.	
5	Close the cap back up by turning it anti-clockwise.	

**ATTENTION!**

Adding too much oil into the duct would cause it to leak through the sintered bronze relief vent on the tank.


7.4.5.2. OIL EMPTYING



ATTENTION!

The emptying operation must be carried out in case of leakage due to the addition of too much oil.

Empty out the oil as described below:

STEP	ACTION	IMAGE
1	Cut off the main current of the machine.	
2	Cut off the pressure to the machine.	
3	Loosen the cap located at the base of the tank.	
4	Let the oil flow out until it reaches the correct amount.	
5	Close the cap back up located at the base of the tank.	

7.5. UNSCHEDULED MAINTENANCE

**ATTENTION!**

Unscheduled maintenance and repair of the machine must be carried out by qualified, instructed and authorised technicians, employed by the Manufacturer or by an authorised service centre.

These interventions require extensive and specialised knowledge of the machines, the required operations, the risks involved and the correct procedures for safe operation.

Activities not included in the "scheduled maintenance" list are considered "unscheduled maintenance".

If exceptional events occur requiring unscheduled maintenance, the user's scheduled maintenance technicians must follow these procedures:

- check the status of damaged or off-set units;
- perform the operations described in the "Unscheduled maintenance" paragraph;
- if the necessary operations are not covered in this manual, send a report of the events, the result of the inspection and any observations to the Manufacturer.

The manufacturer or the authorised service centre will assess the situation on a case-by-case basis.

They will then agree with the scheduled maintenance technicians on what needs to be done, choosing the most suitable solution from those listed below:

- the Manufacturer sends an authorised technician, trained and qualified to do the necessary work;
- or the Manufacturer authorises the user's scheduled maintenance technicians to carry out the operations, sending any additional instructions.

ATTENTION!

Spare parts for replacements must be ordered from ALFAMATIC s.r.l.



If the customer does not use original spare parts or authorised in writing by the manufacturer, the latter is relieved of any responsibility for machine operation and operator safety.

The authorisation and/or instructions must always be given in writing. Without written authorisation it is forbidden to operate and the Manufacturer will not be held liable whatsoever.

7.5.1. UNSCHEDULED MAINTENANCE TABLES

because of their specific function some machine components are more prone to wear than others, and therefore require unscheduled maintenance or replacing.

Below is a list of the main parts:

CODE	COMPONENT	FREQUENCY			
		1,000,000 cycles	2,000,000 cycles	3,000,000 cycles	4,000,000 cycles
combi4	Two-handed control.	♦			
Kit-Kap	Thrust unit gaskets.		♦		
310-BR	Work stroke drive valves.		♦		
KKK-1384	Power valve gaskets.			♦	
AP-SKA	Thrust unit moving part rod unit.				♦

To replace the parts mentioned above, contact the technical assistance of ALFAMATIC s.r.l.



IMPORTANT!

For unscheduled maintenance procedures, refer to the workshop manual supplied to authorised repair technicians.

