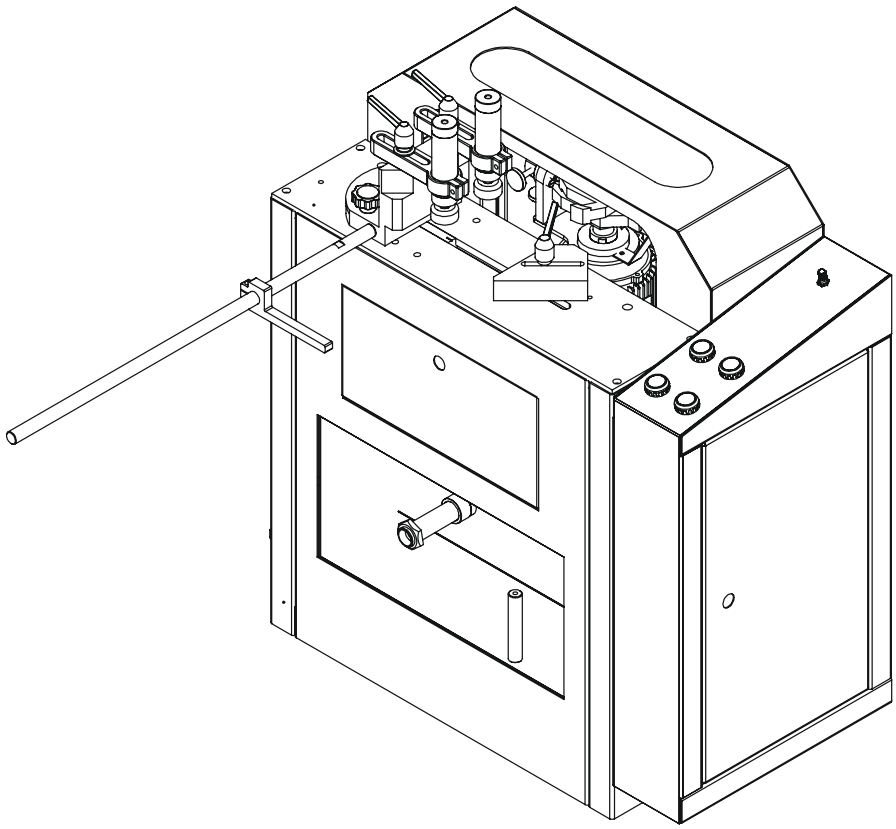
ÖZGENÇ MAKİNA



USER'S GUIDE

OMRM 121

AUTOMATIC END-MILLING MACHINE (EQUIPPED WITH A SERIAL BLADE SYSTEM)

www.ozgencmakina.com.tr

CE

Contents

GENERAL INFORMATION

Includes general topics related to the user's guide.

1. DOCUMENT ISSUING INFORMATION

REVISION	
0	2016

1.1 After-sales Service

Address:

Nilüfer Organize Sanayi Bölgesi

113. Sk. No:23 Nilüfer

BURSA/TURKEY 16250

Contact:

TEL: +90 224 411 07 46

FAX: +90 224 411 07 49

E-mail: info@ozgencmakina.com.tr

Note: Spare parts are supplied by our below-mentioned company.

Any necessary spare parts are delivered by M.S.K MOTOR KOMPRESÖR MAKİNA SAN.TIC.LTD.ŞTİ.

Tel: +90 224 411 07 46

Fax: +90 224 411 07 49

1.2 Certification Process

The machine (OMRM 121) with the technical features described in the user's guide is compatible with CE norms. Safety measures are taken in line with CE norms. CE documents are provided upon request.

SZUTEST

CE

Reference No/*Referans Nu.*: OSE – 15-0419/05

SZUTEST TECHNICAL INSPECTION and CERTIFICATION

Rely on Experience

ATTESTATION OF COMPLIANCE

UYGUNLUK ONAYI

The technical file and test reports of the following product have been checked and found in compliance with the Parliament and Council Directive 2006/95/EC of 12 December 2006 on the harmonization of the laws of Member States relating to electrical equipment designed for use within certain voltage limits and Parliament and Council Directive 2006/42/EC of 17 May 2006 on the approximation of the laws of the Member States relating to machinery.

Teknik dosya ve test raporları incelenerek, belirtilen ürünün Avrupa Birliği Teknik Komisyonu tarafından 12 Aralık 2006 tarihinde yayınlanan 2006/95/AT Belirli Gerilim Sınırları Dahilinde Çalışmak Üzere Tasarlanmış Teçhizat ile İlgili yönetmeliği ve 17 Mayıs 2006 tarihinde yayınlanan 2006/42/AT Makina Emniyeti Yönetmeliğine uygunluğu saptanmıştır.

Applicant: *Başvuru Sahibi:*	**MSK Motor Komp. Makina San. Tic. Ltd. Sti.** *Nilüfer Organize San. Böl. 113. Sok. No.23 Nilüfer, Bursa, Türkiye*
Manufacturer: *Üretici:*	**MSK Motor Komp. Makina San. Tic. Ltd. Sti.** *Nilüfer Organize San. Böl. 113. Sok. No.23 Nilüfer, Bursa, Türkiye*
Product: *Ürün:*	**PVC Profile End Milling Machine** *PVC Alüminyum Orta Kayıt Alıştırma Makinası*
Type/Model: *Tip/Model:*	OMRM 121, OMRM 111
Base of attestation: *Onay Dayanağı:*	**File of technical documentation, Test report Ref. No. 15-0419/05** *Teknik Dökümantasyon, 15-0419/05 numaralı Test Raporu*

*The referred technical file(s) shows that the product complies with standard(s) recognized as giving presumptionof compliance with the essential requirements listed EU Directive(s) above. Other relevant Directives have to be observed. This attestation does not abrogate the compulsory obligation of the manufacturer to issue the declaration of conformity.

**Diğer ilgili direktiflere uyulmalıdır. Referans teknik dosya ile ürünün yukarıda belirtilen AT Direktiflerinin temel gereklerine uygunluğu kabul edilir. Bu onay üreticinin uygunluk beyanı düzenleme zorunluluğunu ortadan kaldırmaz.*

İstanbul, Date/*Tarih* 2015-04-29

Valid to/Geçerli:2020-04-28

Mehmet Işıklar
General Manager

page1of1

SZUTEST Teknik Kontrol ve Belgelendirme Hizmetleri Tic. Ltd. Şti.
SZUTEST Plaza, Nato Yolu Cd. Çam Sk. No:7 Ümraniye, İSTANBUL, TÜRKİYE
Tel: +90 216 - 469 46 66 Faks: +90 216 469 46 67 info@szutest.com.tr | www.szutest.com.tr

ÜRETİCİ / PRODUCER	M.S.K MOTOR KOMP. MAKİNA SAN. TİC. LTD. ŞTİ.		
KOD / ADI / CODE / NAME	OMRM 121 Otomatik Orta Kayıt Alıştırma Makinası (Seri Bıçak Sistemi) Automatic PVC Profile End Milling Machine (Rapid Blade Changing)		
SERİ NO / SERIAL NO	10A4443	ÜRETİM TARİHİ / PROD. DATE	2015
GÜÇ / POWER	1.1 kW	VOLTAJ / VOLTAGE	400 V
FREKANS / FREQUENCY	50 Hz	AKIM / CURRENT	2.4 A
HAVA BASINCI / AIR PRESSURE	6-8 Bar	HAVA TÜKETİMİ / AIR CONSUMPTION	10 lt / min
AĞIRLIK / WEIGHT	125 kg	M. S. K. MOTOR KOMP. MAKİNA SAN. TİC. LTD. ŞTİ. CE	
GENİŞLİK / WIDTH	850 mm		
BOY / LENGTH	480 mm		
YÜKSEKLİK / HEIGHT	1100 mm	NOSAB 113. Sk. No:23 Nilüfer / BURSA Tel: +90 224 411 07 45 Pbx Fax: +90 224 411 07 49	
MENŞE-İ / MADE IN	TÜRKİYE		

1.3 Procedures to Follow

Warning symbols and phrases in this document should be taken into consideration.





These warning signs are intended to protect occupational health and avoid any hazard.

	Beware of risk of burning your hands in case of contact. Take necessary measures.
 CAUTION	Warning sign to prevent machines from experiencing any damage.
 NOTE	Used for warning purposes for proper use of machine features.
	Shows warning messages of operators which are to be inspected.

2. SCOPE OF USER'S GUIDE

User's guide is a document which must be read by the operating personnel before operating the machine. It covers all the required information for machine use. Information about how to provide long-term use of the machine and basic maintenance information is also contained in this document. This guide helps users making correct of use of the software and mechanical components. Although some equipment installed on the machine vary in shape, operating principles remain the same.

3. Machine Description

This is used to adjust meeting rail connections of PVC and aluminum profiles.

- Automatic cutter operation
- You can rapidly replace the blade group, which is adjusted for a different type of profile by means of a button using the "serial blade replacement system" provided by this machine.
- Thus, various profile series to any extent can be easily processed.
- Rotating bump system adjustable for four different types of profile
- The milling speed control is attached to the panel for the convenience of using the regulator
- Profile adjustment capability on various angles
- Pneumatic profile clamping system
- Reinforced engine thrust shaft
- Custom-machined table to avoid profile skid
- Profile side bump square
- Custom-made fixing canal in profile bump shield
- Arm support for long profiles
- 2 standard blade groups are available
- Blade group storage chamber
- Full safety against occupational accidents
- Power supply protects the system against sudden voltage changes.

Options

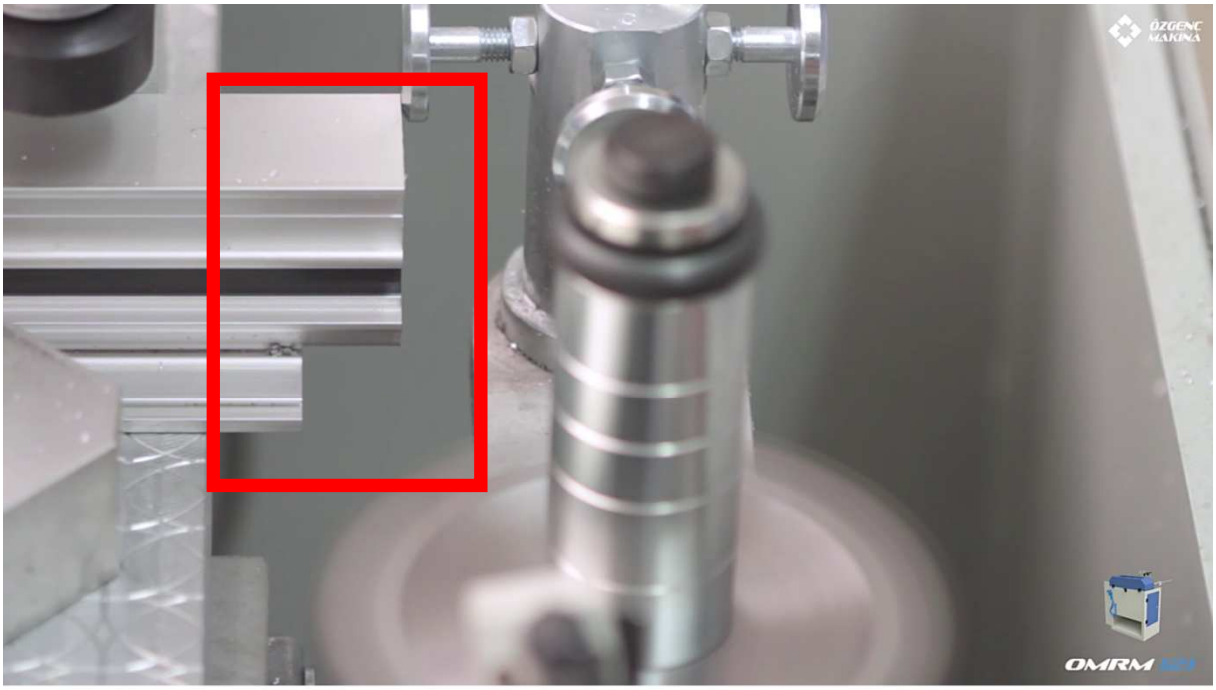
Cooling and hydro-pneumatic piston system available or aluminum profile machining

3.1. Machine Description

OMRM 121 Automatic end-milling machine's easily-replaceable blade group provides any convenience necessary for any end-milling procedure. Safety glasses protect the operator from any risk of a material popping out during a machining procedure.

3.2 Machine Cutting Capacity

OMRM 121 End milling machine can process profiles with max 90 mm height, profiles with 120 mm length for 90°cutting and profiles with 90 mm wide for 45° cutting process.

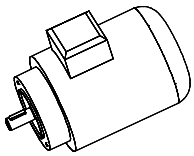

ÖZGENÇ MAKİNA
OMRM

3.3 Machine Specifications

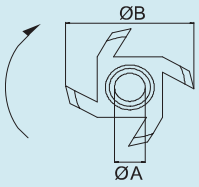
Operating Voltage	400	**Volt (V)**
Total Force Drawn	1.1	**Kilowatt (Kw)**
Current	2.4	**Ampere (A)**

Operating Pressure	**6-8**	**BAR**
Total Air Consumption	**10**	**L/Min**

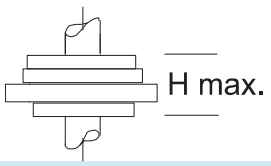
Number of Engines	**1**	**Number**
Engine Power	**1.1**	**Kilowatt (Kw)**
Engine Speed	**2810**	**RPM**



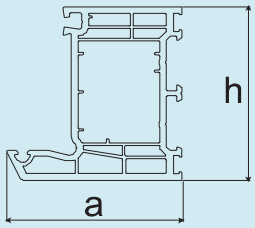
Blade Sizes		
ØB	**140**	**mm**
ØA	**30**	**mm**



Max. Blade Height		
H (max)	**90**	**mm**

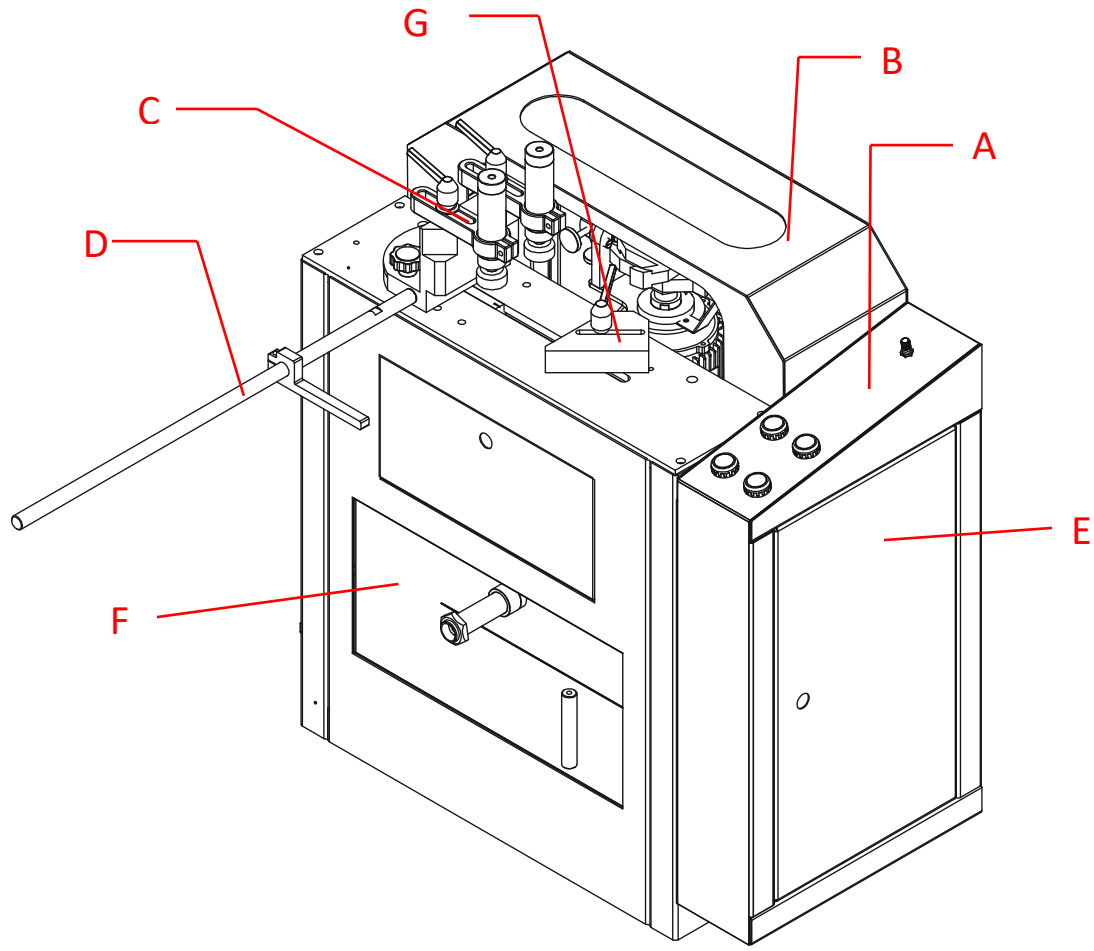


Bar Sizes to be Machined		
h(max)	**90**	**mm**
a (max) 90°	**120**	**mm**
a (max) 45°	**90**	**mm**

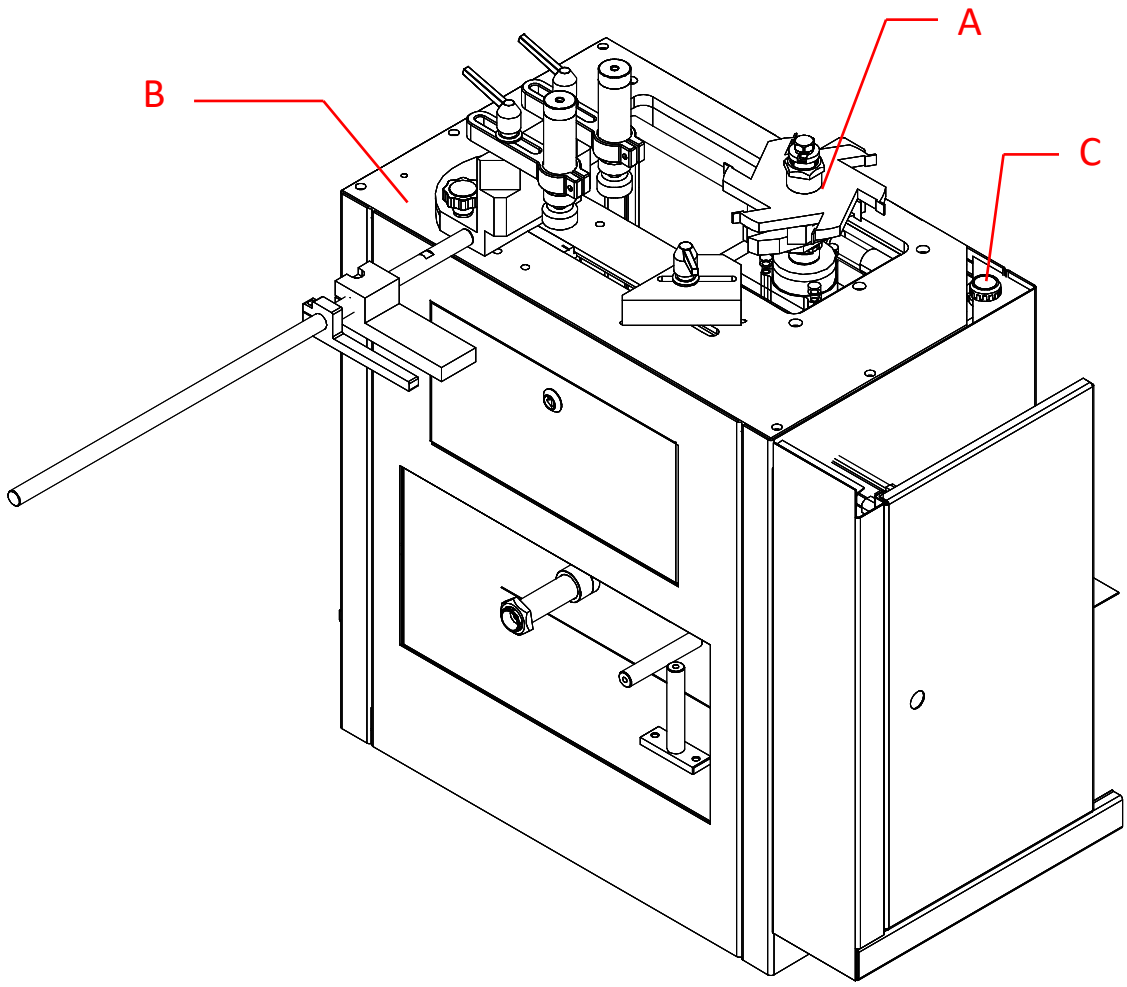


Machine Weight	**110**	**Kilogram (Kg)**

4. Machine Layout and Unit Structure

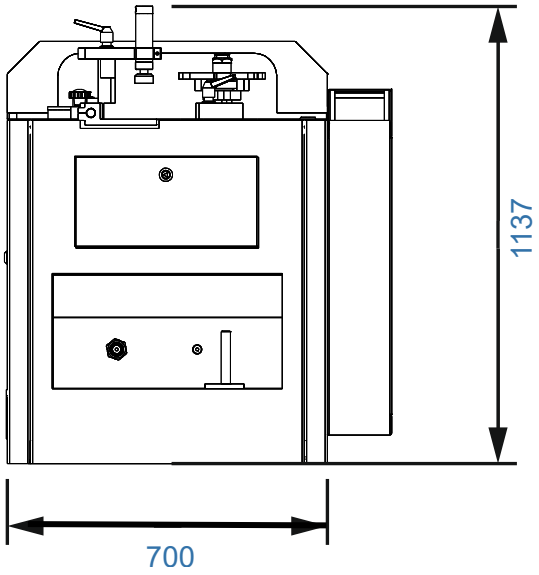


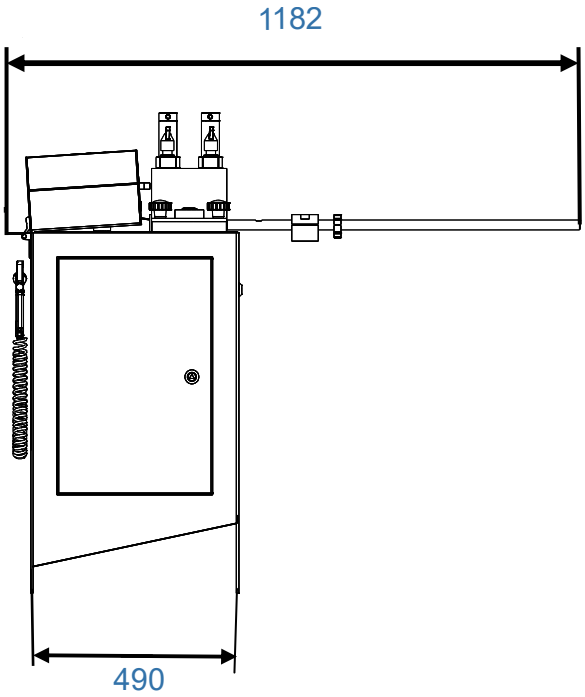
A-	User Control Panel
B-	Protection Cover
C-	Pressure/Fixing Pistons
D-	Profile Support Lever
E-	Electrical Panel Board
F-	Blade Group Storage Container
G-	Profile Lateral Support Square



A-	Blade Group
B-	Tray
C-	Blade Replacement Button

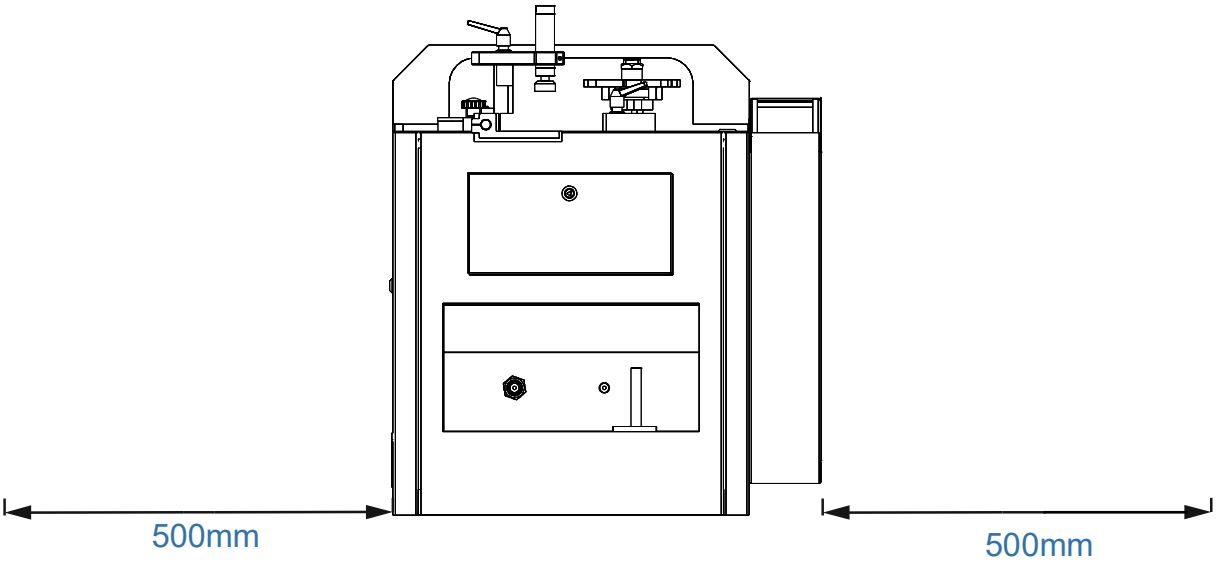
4.1 General Machine Size

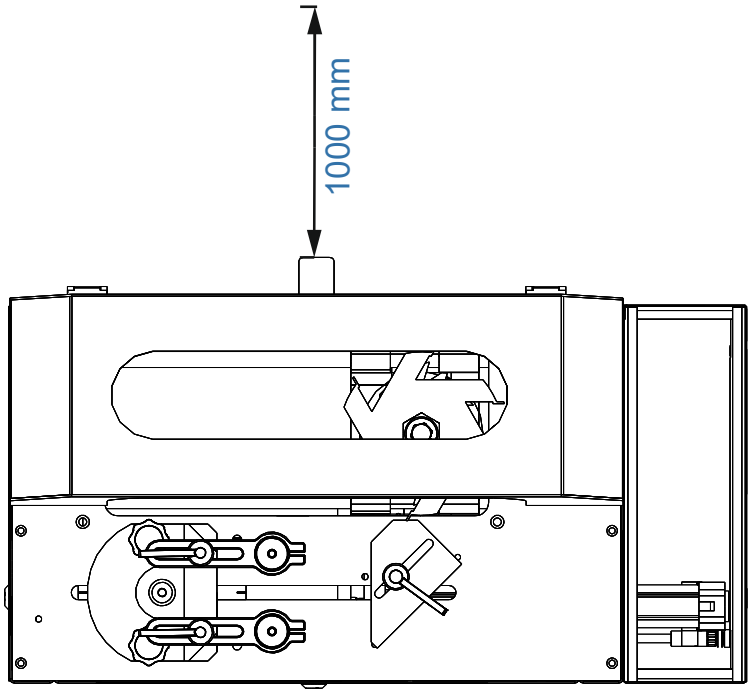




4.2. Machine Placement

While placing the machine, take the range of motion into account to operate the machine. In addition, allow for a certain distance for the machine's panel doors to open when necessary. Take following sizes into account for safe operation.





5. OCCUPATIONAL SAFETY and MEASURES

5.1 Safety Switch

This section contains information required for safe use of the machine and general equipment.

5.2 Safety and Accident Measures

Required warning regarding accidents and measures to be taken are given in the User's Guide. Still, user is responsible for warning and guiding workplace employees for complying with occupational safety rules. Workplace officers are responsible for performing required practical follow-ups. Operator must have full command over safety rules of the machine before starting to operate it. Safety components at the time of machine delivery must be kept intact.

Manufacturing company cannot be held legally accountable for any accident and safety gap resulting from operation not compliant with use and safety requirements of the machine. Such risks shall also affect warranty conditions. Manufacturing company shall not be responsible for any accident and fault that may result from machine and equipment use outside instructions. Any critical part requiring replacement due to wearing etc. of the machine and other equipment must be immediately replaced.

Operator is responsible for use, cleaning, adjustment, operation, maintenance etc.

5.3 Machine Usage and Misuse

OMRM 121 machine is designed for end-milling profile cutting. Any machine fault and occupational safety gap that may caused by machining non-PVC materials shall lie with the user’s responsibility.

5.4 General Safety Rules

OMRM 121 end-milling machine is suitable for only one single operator. Operator must not operate the machine in case of any lack of attention caused by drugs, alcohol or medication. Operator must check the machine and components prior to operation. It should be ensured that the main switch is turned off during routine maintenance. Power and pneumatics must also be switched off. Any pressure must be discharged in case any hydro-pneumatic equipment is used. Do not replace the equipment and safety parts on the machine. Do not lift the safety device and barriers. Operator must wear a uniform suitable for machine and manufacturing requirements. Operator must not wear any rings, bracelets etc. which may cause an accident. Employees with long hair must use hair nets, if necessary. The machine must be installed in accordance with the training provided by M.S.K.

5.5 Maintenance Measures for Safety

All maintenance procedures must be performed by expert technicians who have command over the periodical technique. Use predefined equipment for machine maintenance.

5.6 Electrical Safety Rules

Severe occupational accidents and injuries may take place in case of failure to comply with the following safety rules. Any electrical intervention and maintenance must be performed by an engineer. All procedures must be performed using proper and isolated equipment. Take notice of safety signs and do not remove them. Do not make any addition and subtraction on the voltage line. Use original spare parts and equipment. Do not make any changes in circuits. Turn electrical hardware off prior to any cleaning procedure. Make sure that main cabinet and cabinet doors are closed. Cut the power from the main switch in case of fire. Use proper fire extinguisher.

Note: Hardware panel locks must remain with authorized staff.

5.7 Lighting Conditions

Operator must use the equipment with proper lighting conditions for his/her safety and health. Minimum lighting power must be 300 lux for machine use. For more technical information, please see EN 12464-1 Lighting Norm.

5.8 Connections

All necessary connections must be prepared at the layout site in line with the machine. Electrical power, pneumatics or similar demands must be at values meeting requirements, and compatible equipment must be kept available at the layout site. Take IEC 64-8 norm into consideration for the installation of electrical equipment.

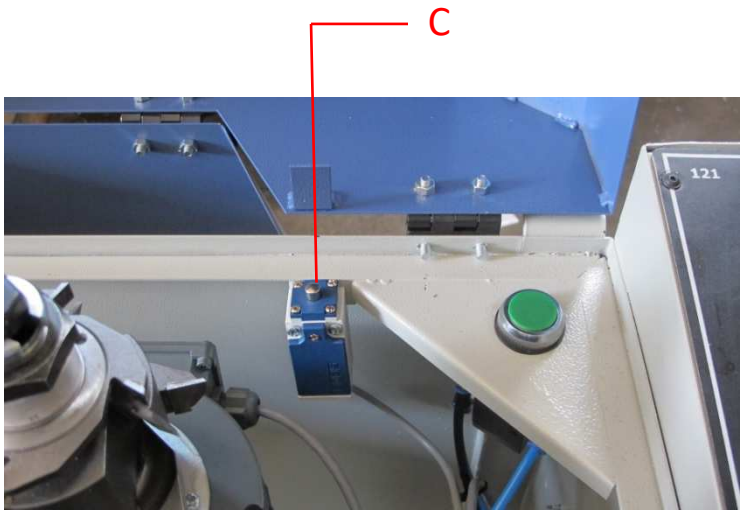
Note: If the system is equipped with a power supply, then it must have a 0.3A circuit-breaker and start-up procedures must be performed by experts.

5.9 Earthing Requirements

Earthing system must conform to standard features described in IEC 64-8. It must be compatible with IEC64 and IEC364 norms for low-voltage equipment. Earthing procedures must be performed in consideration of the voltage value. A stands for the marked point earthing inlet.

6. Safety Equipment

DANGER! It is not permitted to remove or deactivate safety measures taken for the machine and equipment.



6.1 Risky Areas and Warnings

Safety measures are taken on the machine through equipment, but it is also required to comply with additional visual safety measures at the operating site.

	• Contact with moving parts may lead to electric shock. • Do not use sharp objects on protective isolation equipment as they may do harm. • Do not use pointed objects that can penetrate into the protective isolation equipment. • Turn off the power supply prior to any maintenance or adjustment.
	• During the operation of machine, pay attention to moving equipment or to those used to fix a part. • Keep both hands away from equipment during operation. • Do not make any adjustments or do not perform maintenance during operation. • Do not grab moving parts with hands.
	• Do not put your hand in the area with hot equipment. • Do not hold hot equipment. • Use protective gloves to replace hot equipment. • Do not extend your hand to any heated plate etc.
	• Do not put your hand anywhere with a risk of jamming. • Do not keep your hands on machine except for buttons. • Take safety actions during maintenance and cleaning procedure. • Take measures to avoid cuts while replacing milling cutters and drilling bits.
	• This machine does not create a volume of sound detrimental to health.
	• Please read the relevant user's guide carefully. Try to understand the safety warnings. • Keep user's guide at a visible spot.

6.2 Noise Emission

There is no noise emitted by machine units with an impact on occupational health.

6.3 Disposal of Hazardous Substances

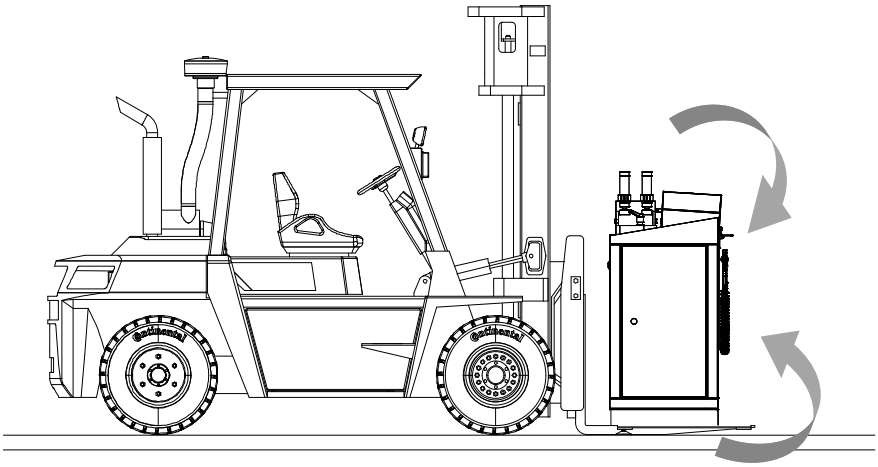
If the user uses lubrication and cooling equipment, then apply the methods indicated on respective labels.

7. Machine Start-up

7.1 Domestic Shipping

Our machines are specially packed in accordance with the size and weight criteria. Main purpose of packaging is to safely deliver the product free-of-damage to our customer. Some parts may be shipped as disassembled in line with the agreements with customer. Prior to any shipment, a contract is signed between parties about all detailed criteria.

Transport methods adopted during loading must comply with the mechanical structure and weight of the machine. Otherwise machine may suffer damage.



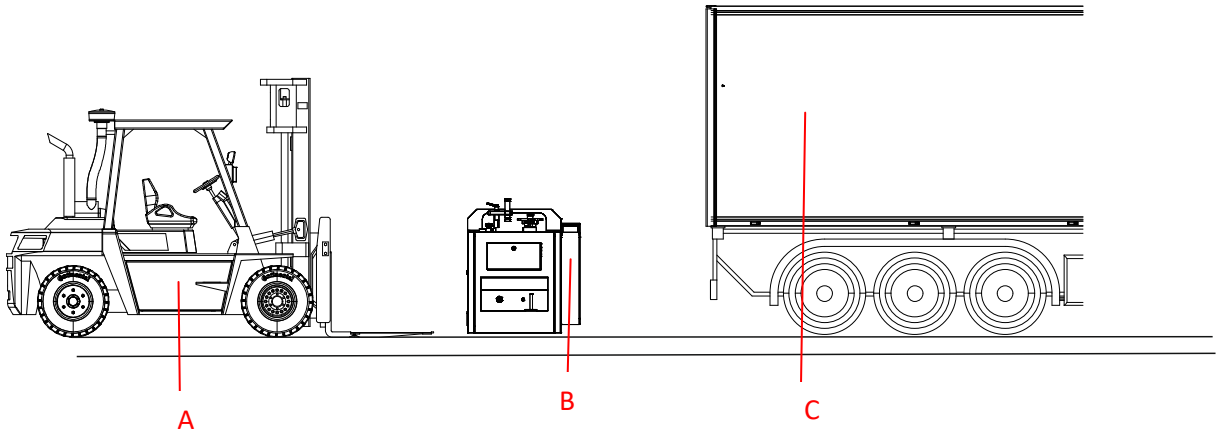
Note:
Take precautions against potential risks that may arise due to displacement of the center or gravity during any lifting procedure.

Note: No equipment is demounted on the machine for domestic shipment. You are recommended to use a forklift. Our company shall not be held accountable for any accident that may arise.

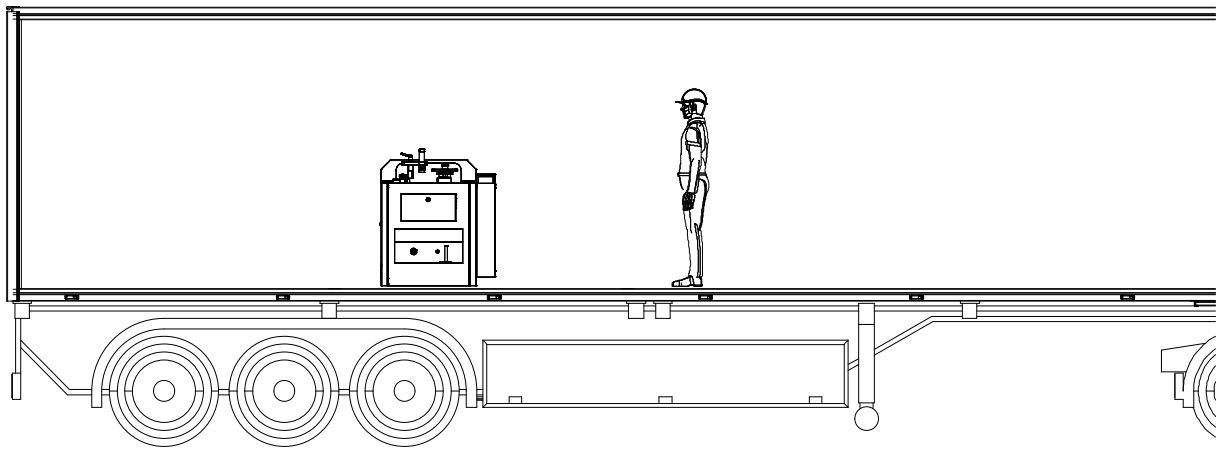
Any moving units must be fixated and taken under protection during shipment.

Important NOTE:

Remember to take off the protective wedge which is put to use during shipment, once you are done with placing the machine!



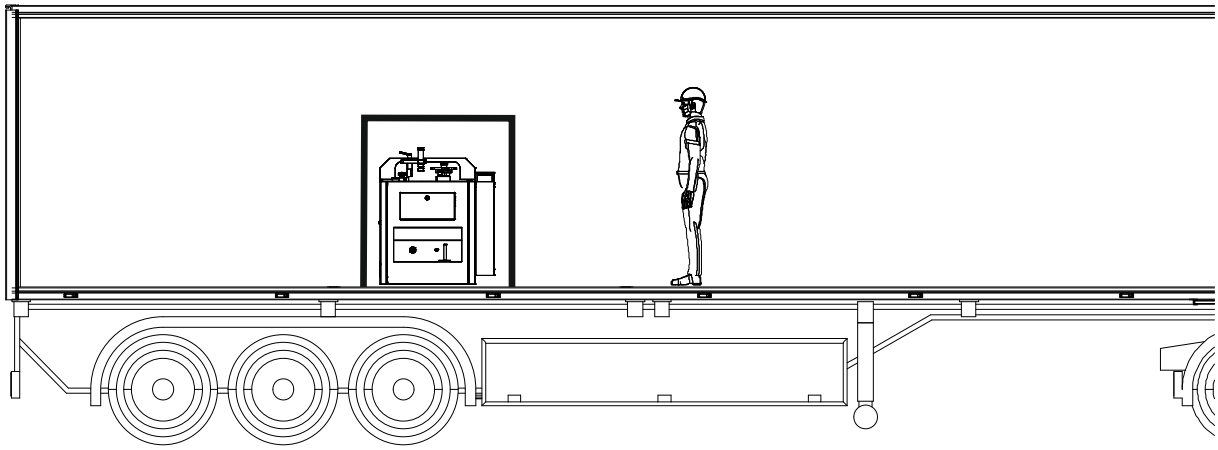
A- Forklift
B- Machine
C- Shipment Vehicle



Take necessary precautions during the machine is being taken off the vehicle. Take action to avoid any skid. You must lift the machine without damaging its body at unloading stage. Any machine foot dismounted during shipment must be reassembled.

7.2 International Shipping

Any machine to be shipped abroad is packed in wooden boxes according to its size. Some environmental equipment with a risk of damage during packaging procedures must be demounted and separately packed.



7.3 Fault Control During Shipment

Check the machine for any fault and damage that may arise during shipment and report to the shipping company in case you encounter a problem.

8. Machine Installation

Expert M.S.K. personnel will carry out all procedures with regard to loading and unloading and conduct performance tests for assembly, mounting and start-up, if necessary. These procedures are evaluated on machine basis and carried out for products deemed necessary. Setting up of parts and equipment which should be prepared prior to machine use must be performed. Required operations will be explained below.

8.1. Machine Placement

Use predefined hanger lifting points to position the machine at the site described in the plant layout. You may adopt previously exemplified transport methods. Using any other method may damage your machine.

8.2 Fixing on Ground

The machine must be placed considering the maintenance and operating spaces. Rear and side spaces and spaces recommended for maintenance procedures are above-mentioned. An expansion bolt at a size of M12X50 mm is recommended for floor connection.

8.3 Start-up Preparation

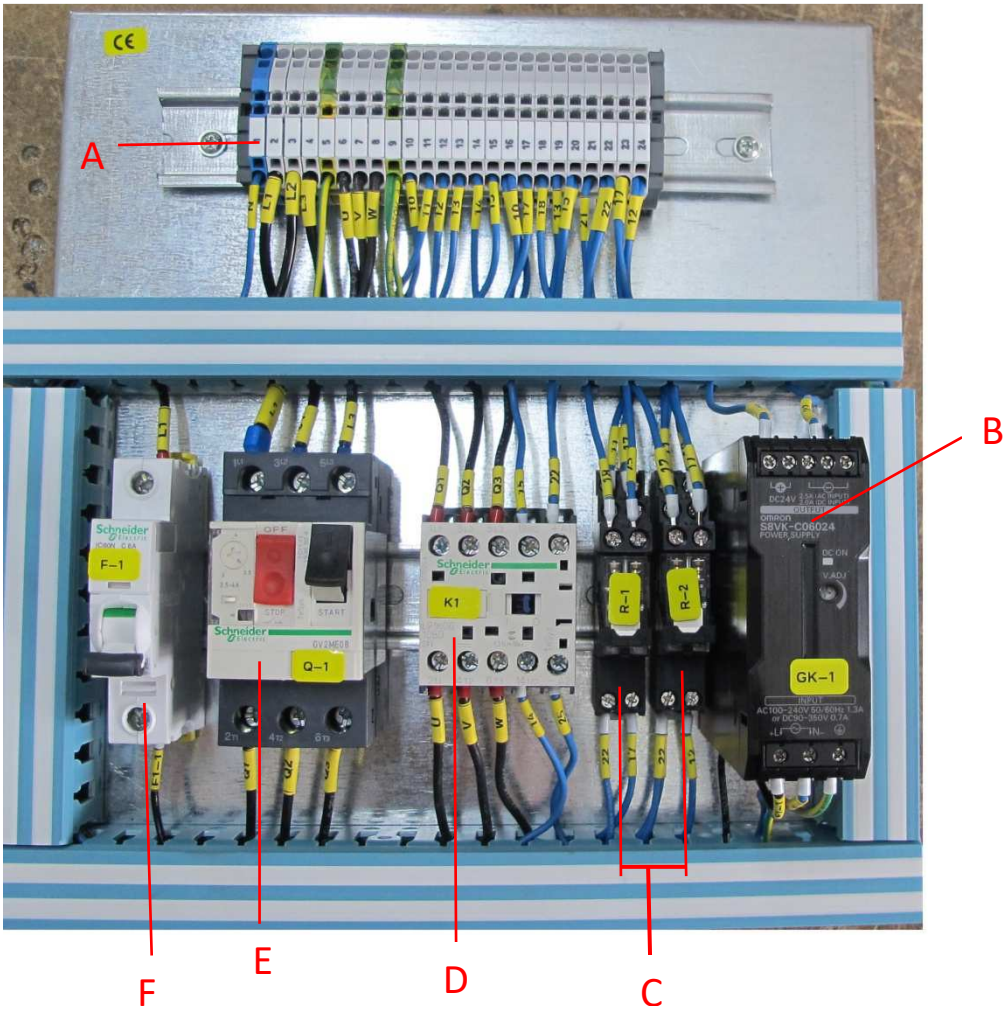
Moving parts of the machine are generally cleaned by an anti-rust oil. Power connection and pneumatic connection are made for the machine to function properly.

8.4 Electrical Connections

VOLT	400 V
HERTZ	50 Hz
CURRENT	2.4 A
POLE	3P+N+E

8.5 Electrical Panel Scheme and Equipment Structure

This electrical panel scheme is provided solely for placement of components within the panel. See ANNEXES for an in-depth electrical scheme.



A-	Electric Terminal Group
B-	Power Supply
C-	Double Relay
D-	Contactor
E-	Motor Protection
F-	6A Fuse

8.6 Pneumatic Connections

Ideal air pressure for the machine to properly function is 6 bar. Check the manometer.

<u>Caution:</u>

Make sure that your air supply is dry!

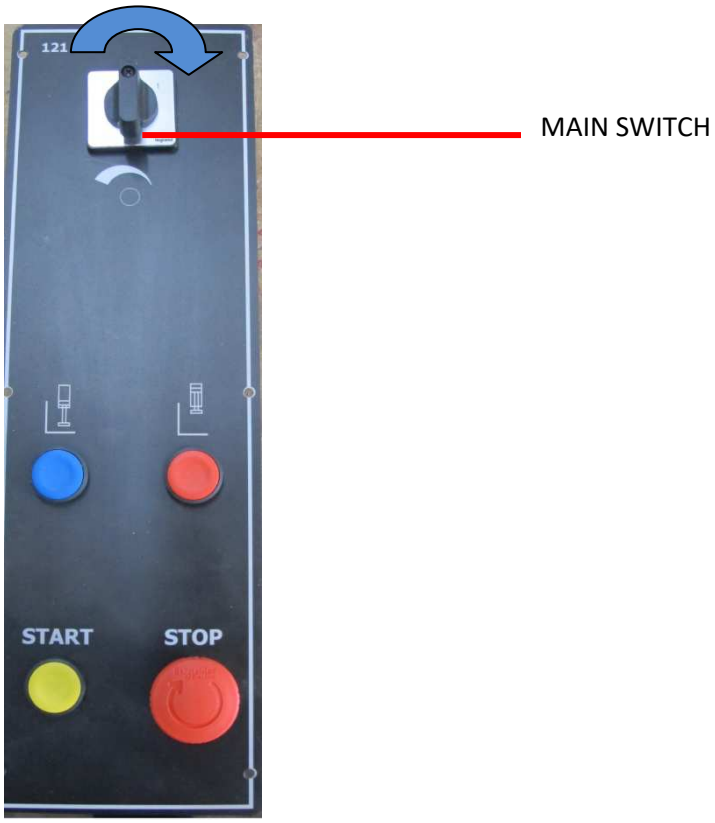
Solenoid Valve group controls the motion of current pneumatic equipment. Manual actions may also be performed by valves when necessary.

9. Machine Use

9.1 Machine Start/Stop

Make sure that there are no foreign objects on machine prior to operation.

9.2 Turning on Machine



Rotate the main switch clockwise until it slots into place.

Check whether the EMERGENCY/STOP button on the manual control panel is rearward.

(EMERGENCY STOP BUTTON MUST BE REARWARD!!)

9.3 Control List

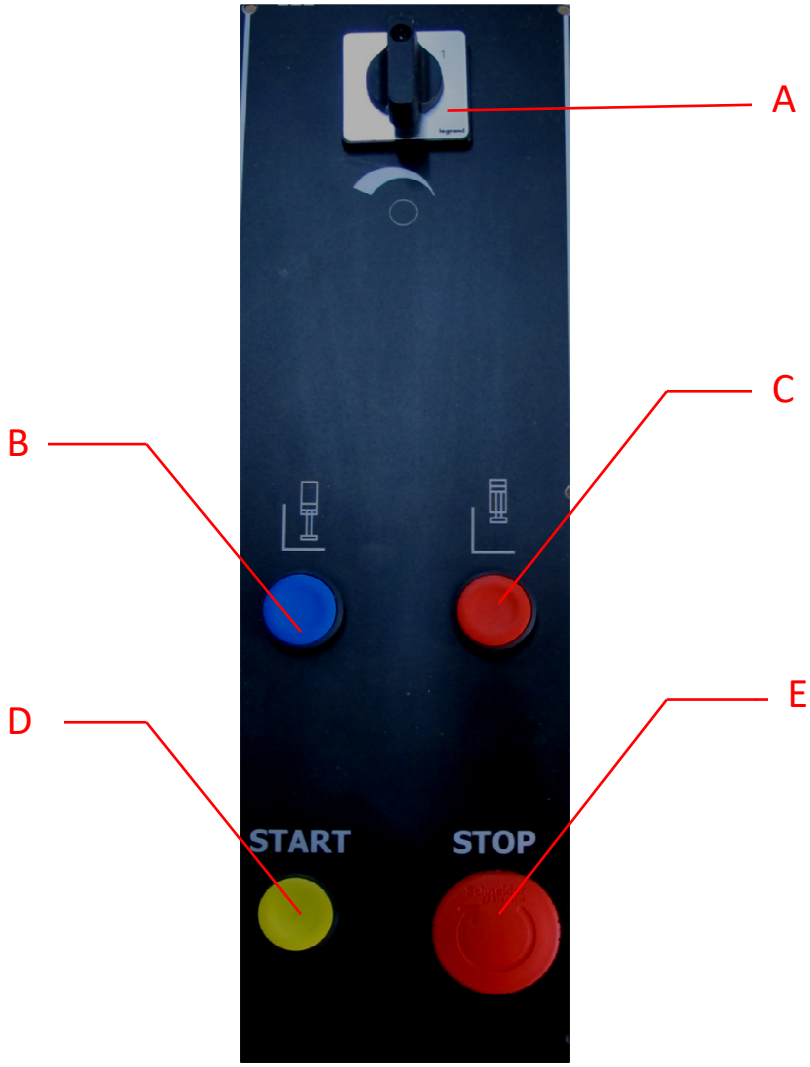
Main Switch: It completely cuts off the power supply from mains. The emergency stop button on the operator's panel solely stops the operation.

	▪ Contact with moving parts may lead to electric shock. ▪ Do not use sharp objects on protective isolation equipment as they may do harm. ▪ Do not use pointed objects that can penetrate into the protective isolation equipment. ▪ Turn off the power supply prior to any maintenance or adjustment.

Important Note:

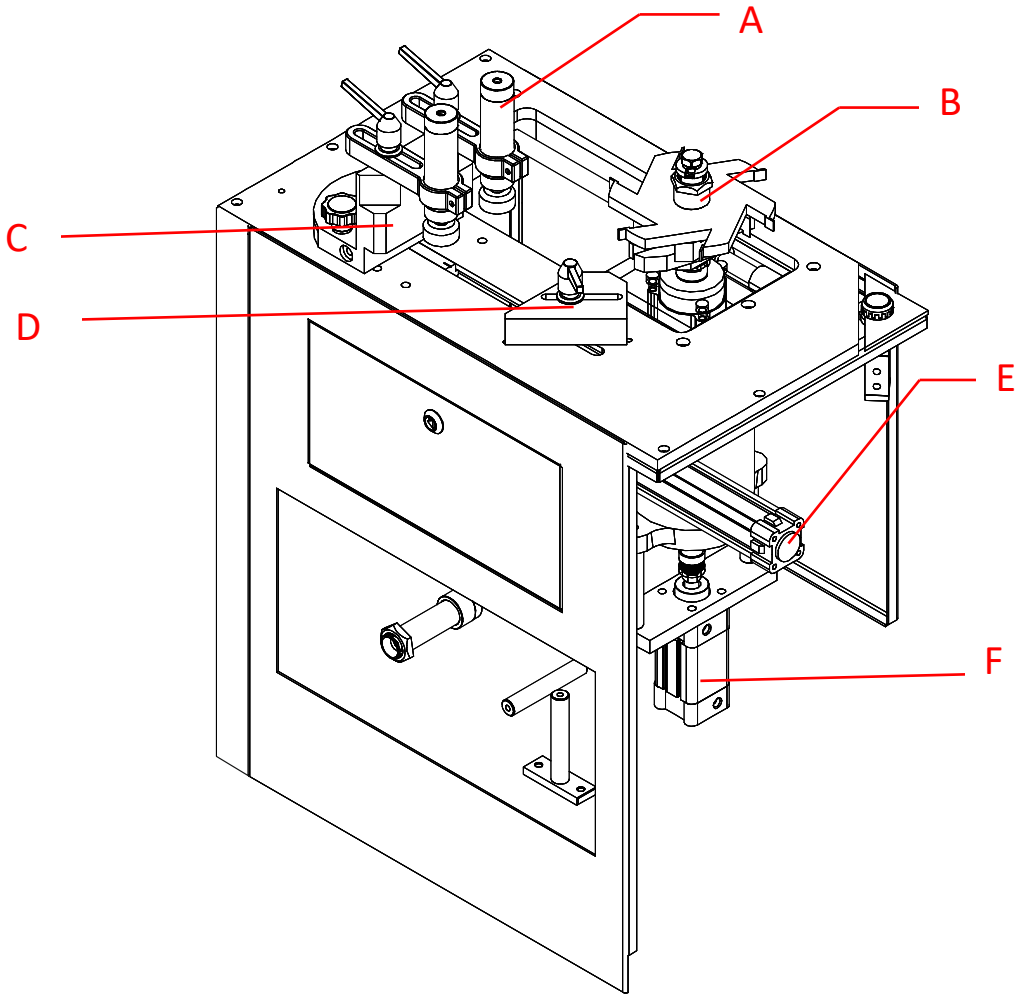
If the machine is relocated for any reason, it may not operate at the site it is plugged in. The reason for non-operation is that the phases in plug sockets are reverse. Saws of the machine are protected by a phase sequence relay to avoid rotation at a reverse phase. The machine may be operated again when the phases in machine's plug are changed by an electrician.

9.4 Control Panel and Features



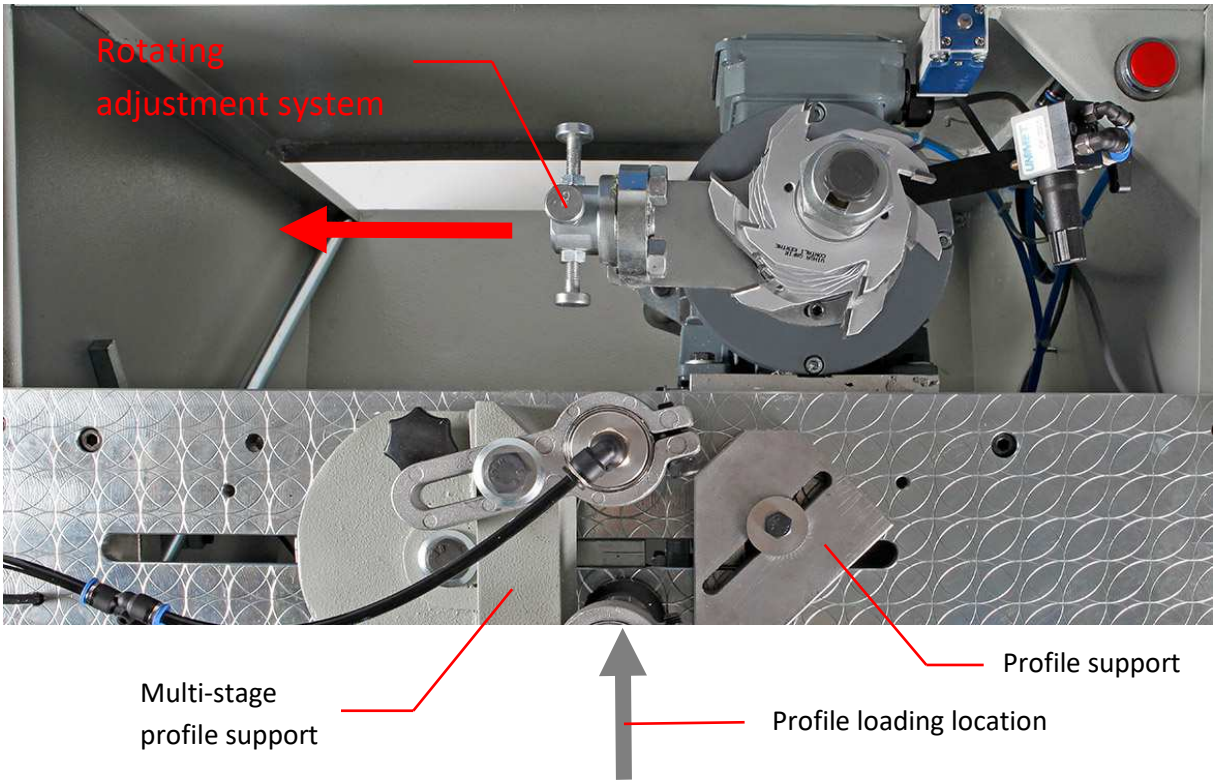
A-	Main Switch
B-	Pres/Fixing piston profile clamping button
C-	Pres/Fixing piston profile release button
D-	Button to start engine
E-	EMERGENCY STOP button

9.5 Moving Equipment on Machine



A- Pressure/Fixing Pistons
B- Blade Group
C- Multi-stage Profile Shield
D- Lateral Support Square
E- Blade Group Movement Lever
F- Motor Shaft Piston

9.6 Automatic End Milling Procedure and Machine Settings

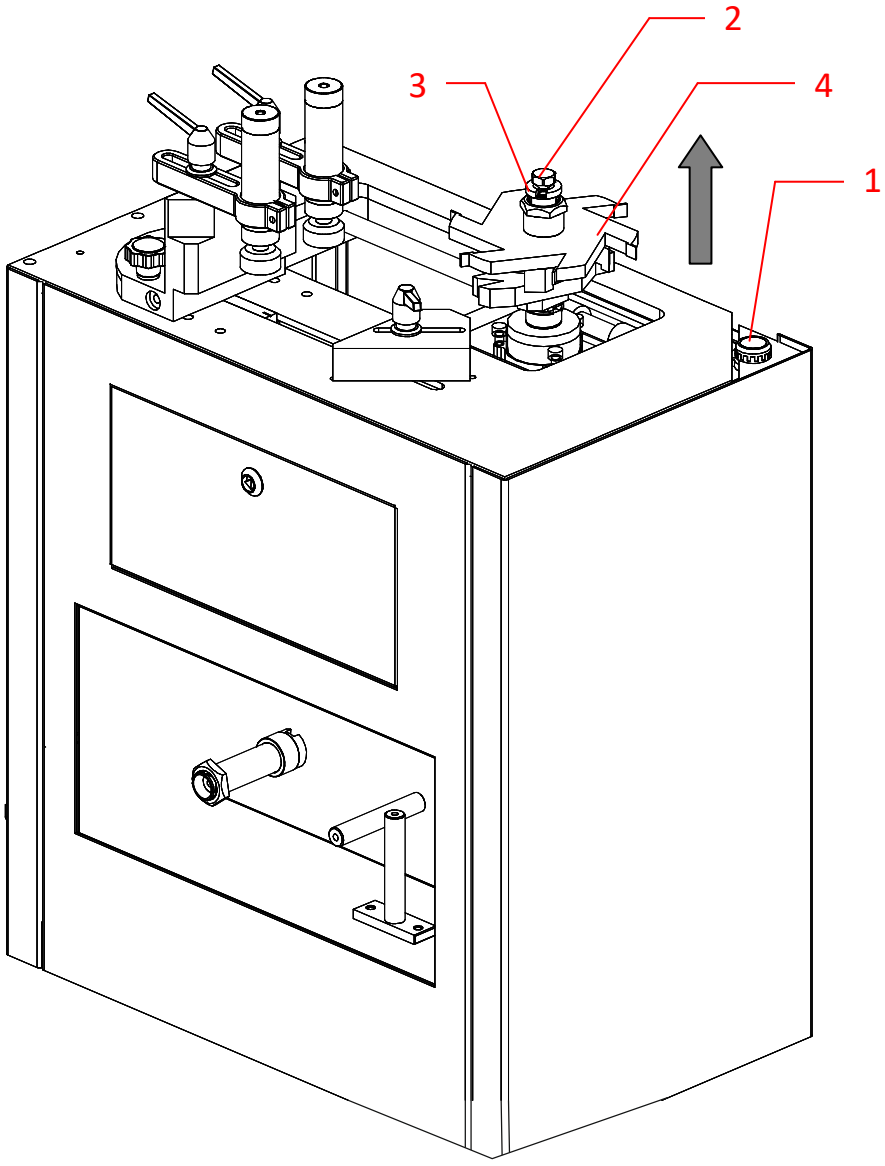


Operations During Usage

- Turn on main switch
- A suitable setting is selected on the rotating adjustment system depending on the profile to be machined
- Multi-stage profile support can be adjusted as per the required cutting angle.
- Profile support can be set in line with the profile thickness to prevent profile slipping.
- Fix the profile pressing the Pres/Fixing profile clamping button (blue button) on the control panel
- Start the cutting process pressing the start button
- When the cutting process is completed press the Pres/Fixing piston profile release button (red button)

The operation is repeated in the same way.

9.7 Replacement of Cutting Blades

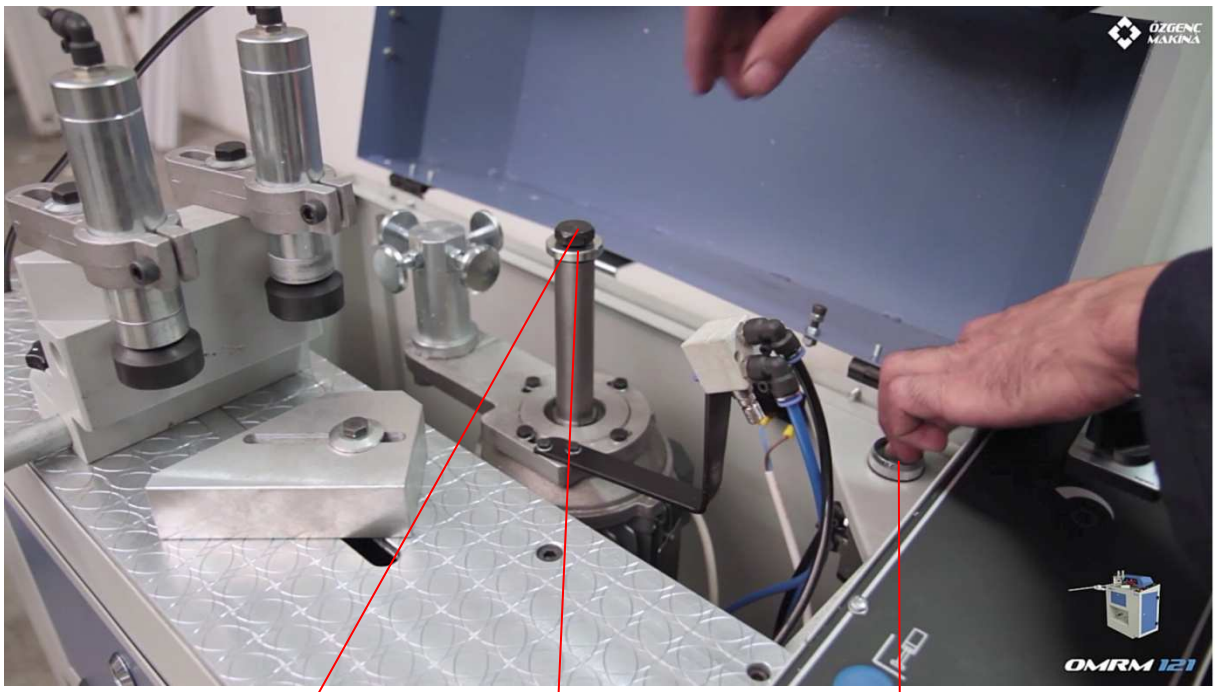


1-	Blade Group Replacement Button
2-	Blade Engine Mill
3-	Clamp
4-	Blade Group

Process Steps

- Hold the blade group replacement button
- The engine mill will go up
- Take off the clamp on the top of the blade group
- Pull up and take off the blade group
- Place the new blade group
- Hold the blade group replacement button again
- Place the clamp on top of the new blade group

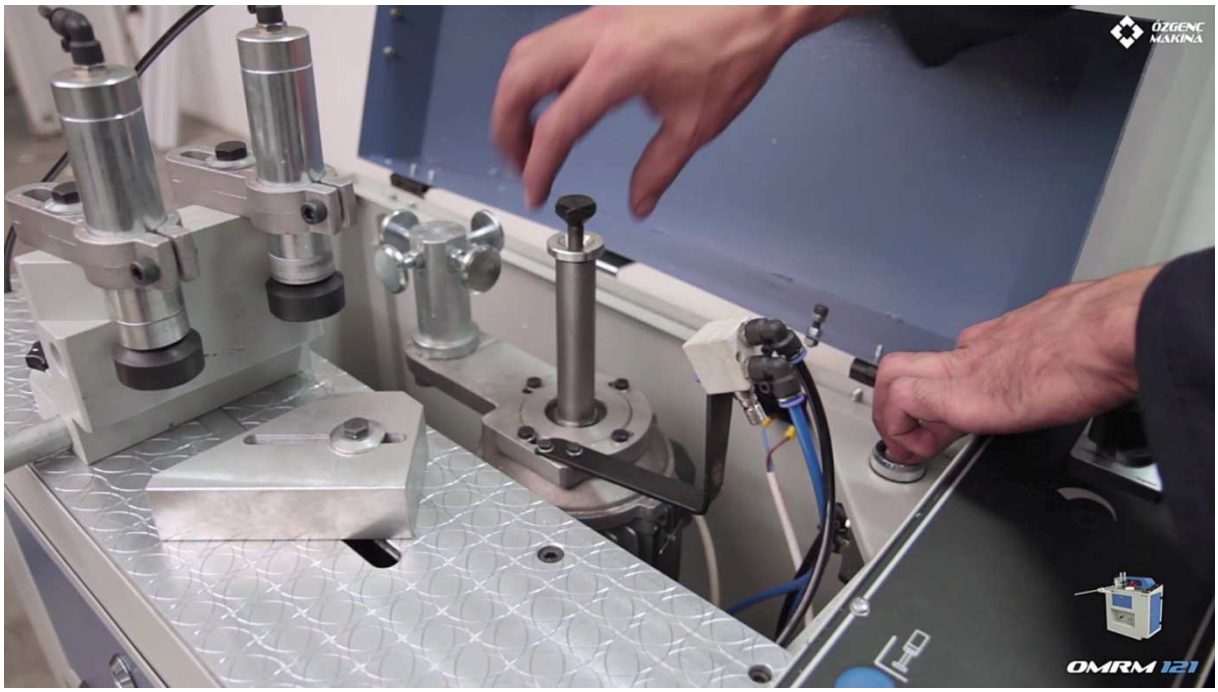
Photos of Process Steps

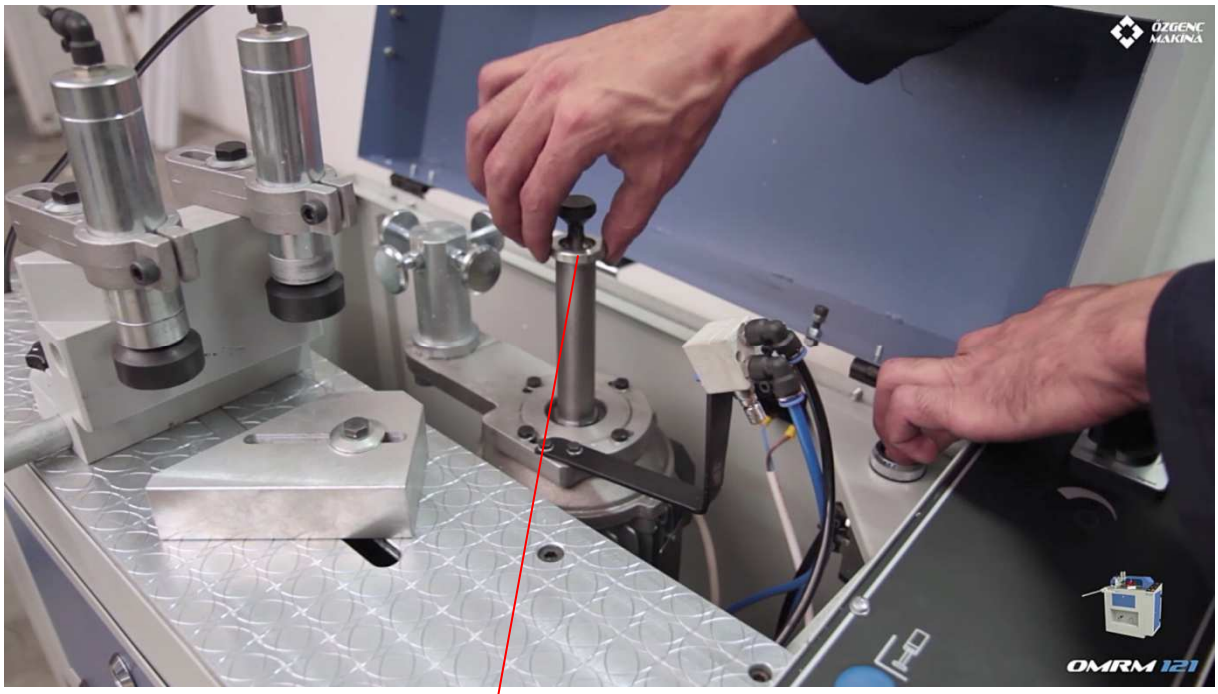


Motor shaft

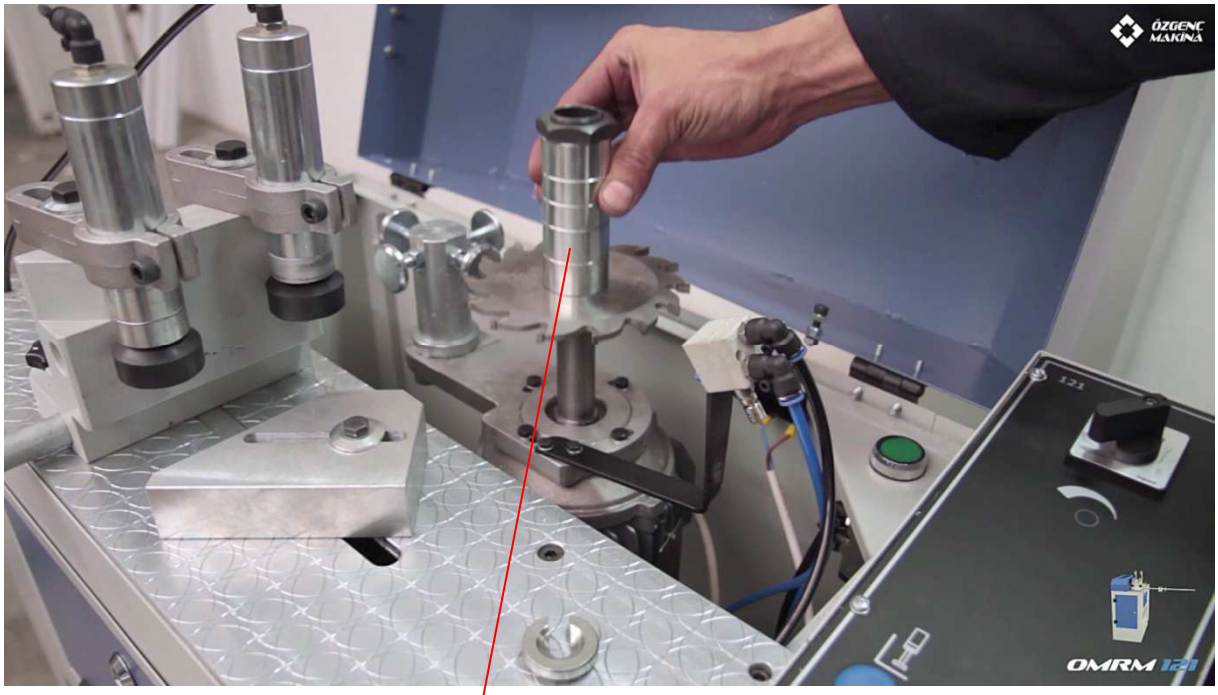
Clamp

Blade group replacement button

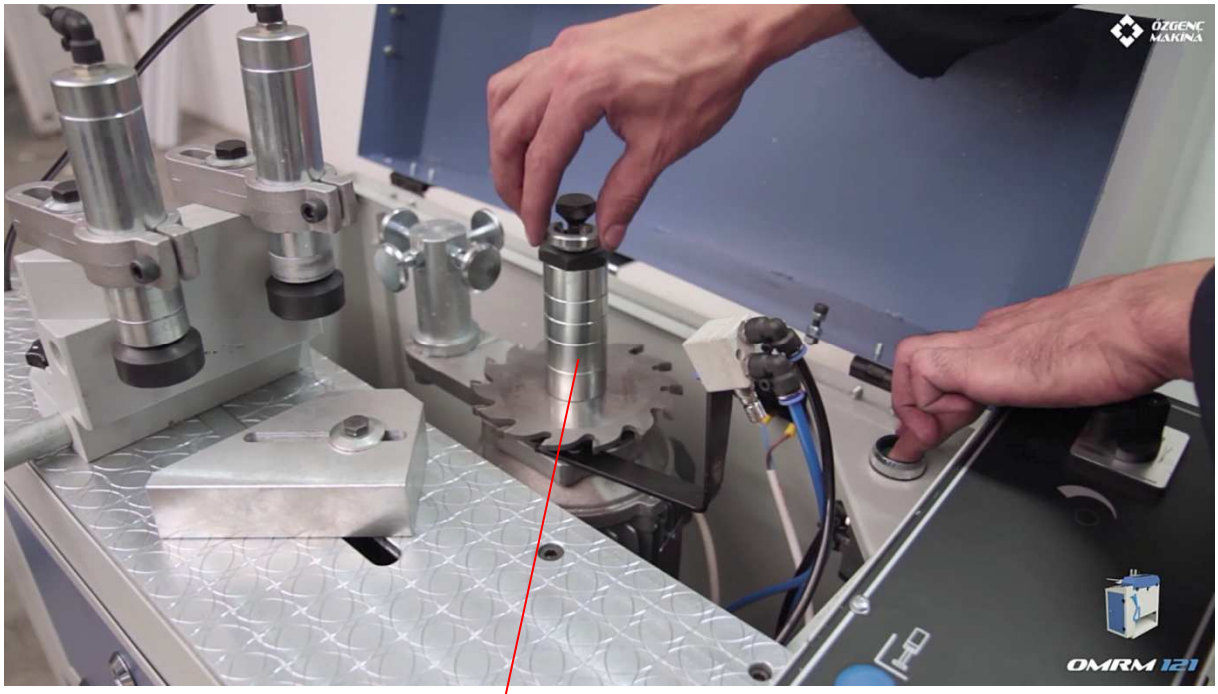




Remove the collar after the shaft is moved to the top

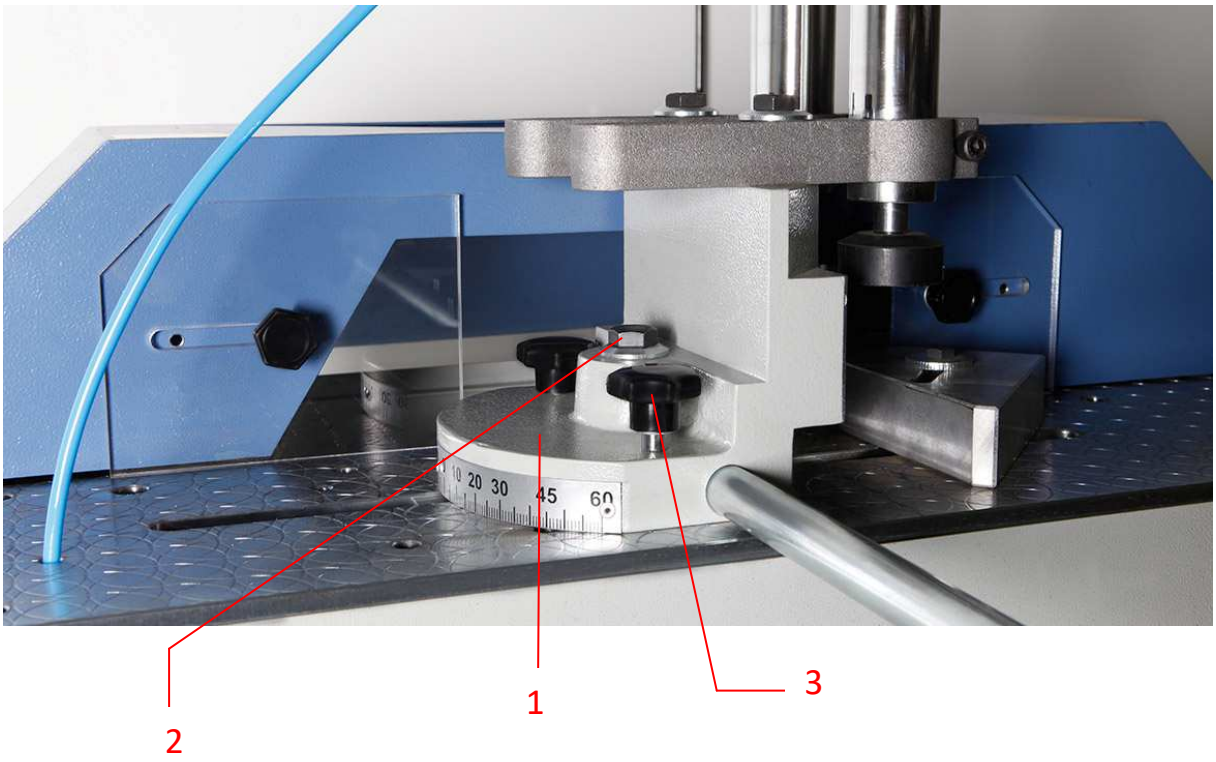


After taking off the clamp, place the new blade group

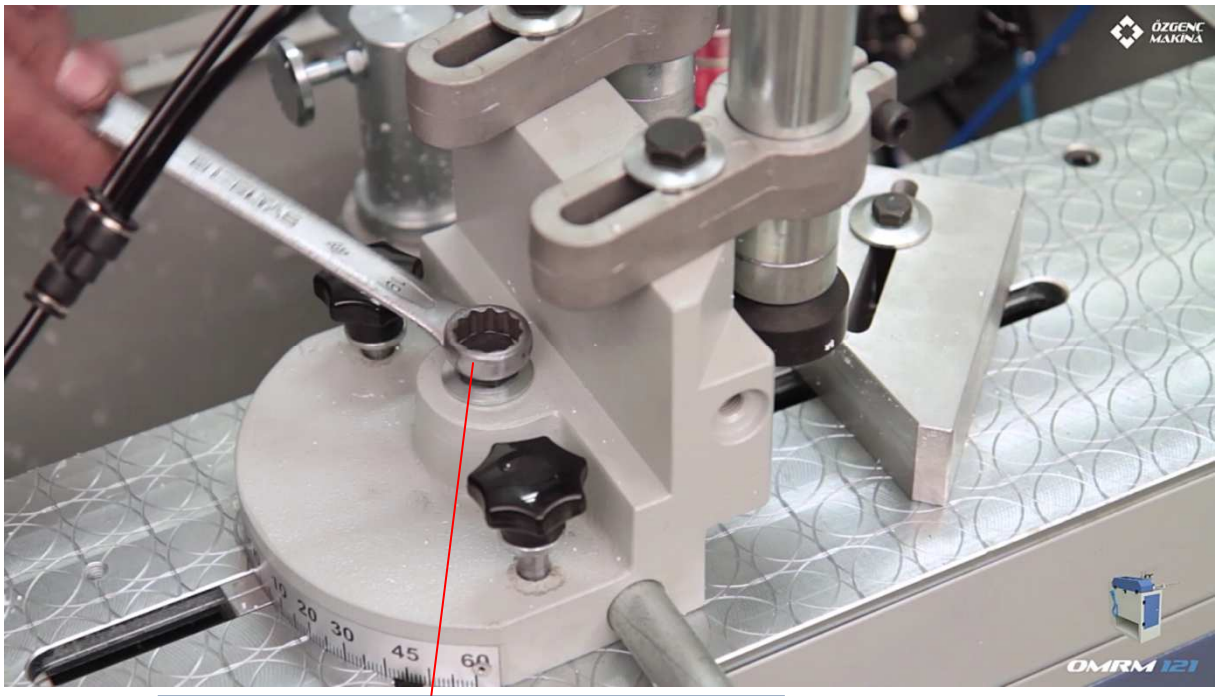


After fitting the new blade group press and hold the blade group replacement button and refit the collar.

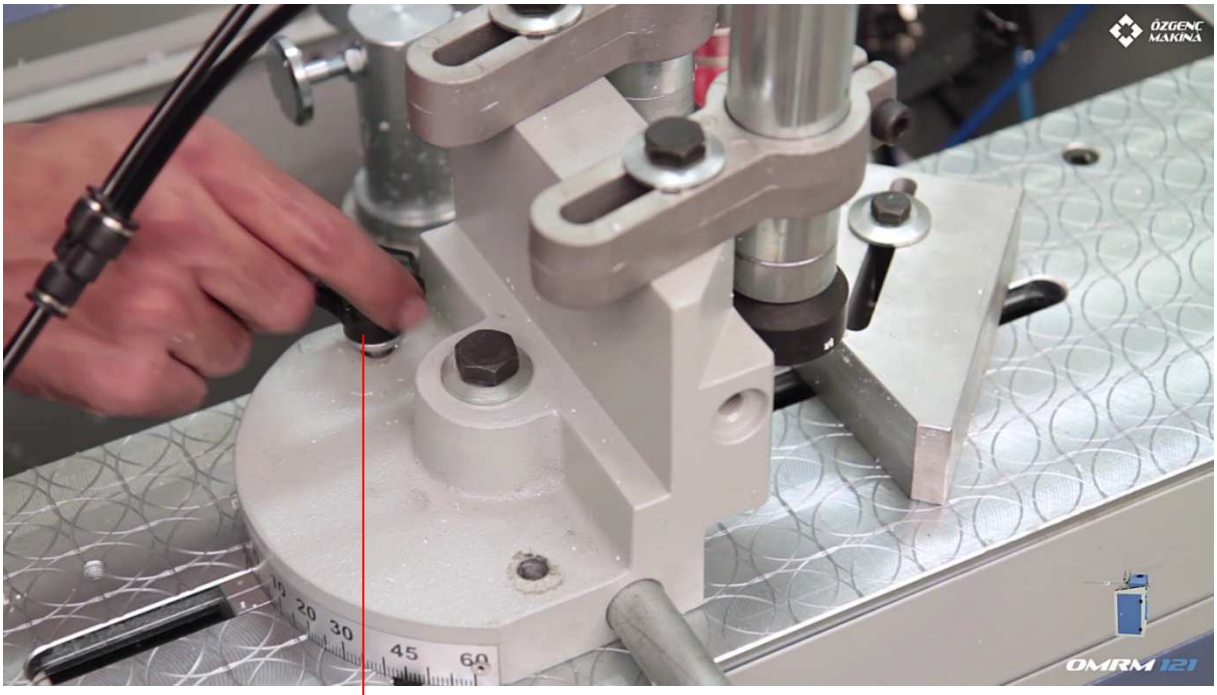
9.8 Adjusting the Multi-stage Profile Support to the Desired Angle



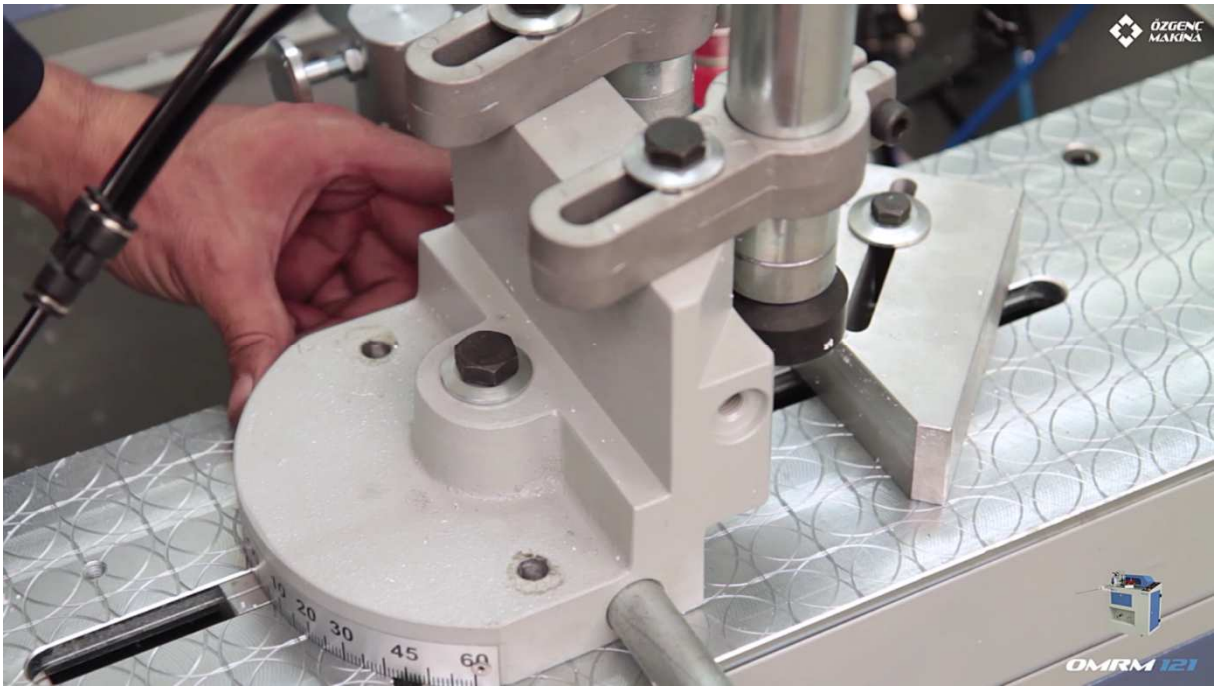
1. Multi-stage Profile support
2. Fixing Screw
3. Clamping Springs



Loosen the fixing screw with a wrench



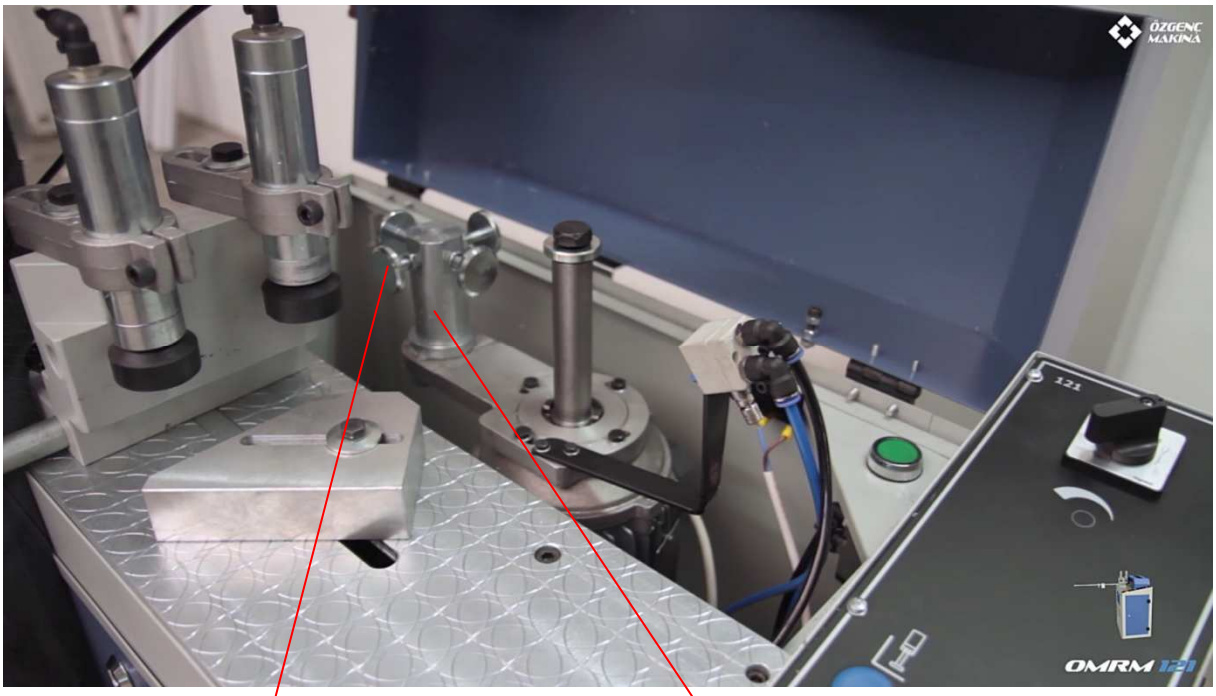
Remove the clamping springs



- After adjusting the multi-stage profile support angle install the clamping springs and then tighten the loose fixing screws with a wrench

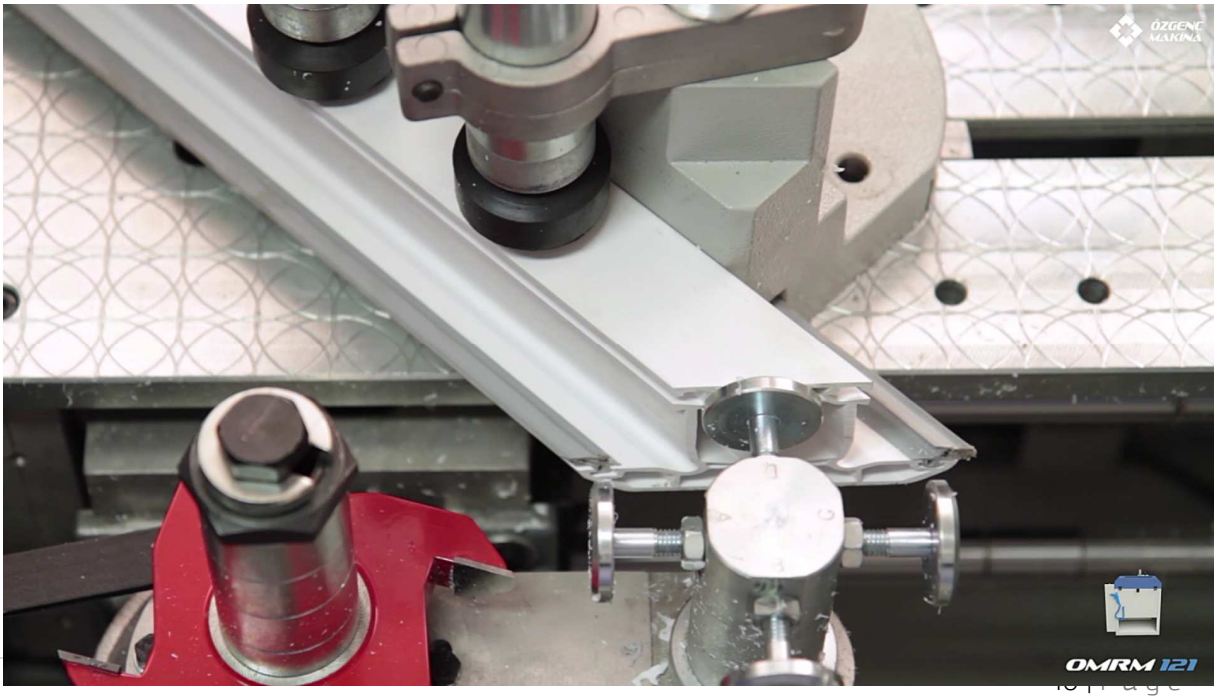
Adjust the multi-stage profile support to the desired cutting angle.

9.9 Adjusting the Rotating Adjustment System



Profile support arm

Rotating adjustment system for 4 types of profiles.



10. General Maintenance Issues

10.1 General Maintenance

REMARKS	DAILY	WEEKLY	MONTHLY
Cleaning top and surroundings of machine	✓		
Cleaning of oil and other wastes	✓		
Cleaning of moving parts	✓		
Cleaning of slides and threaded rods	✓		
Conditioner control (water, oil)	✓		
Lubrication points		✓	
Weekly maintenance		✓	✓

Adjust the profile support arm as per the depth of the profile to be cut.

10.2 Recommended Oil Types for Machine

Festo special oil OFSW-32, order no. 152 811

Other appropriate oil types: (viscosity range: 32 mm^2/s (=cSt) at 40°C; ISO class VG 32 to ISO 3448

10.3 Alternative Oil codes

- ARAL Vitam GF 32
- BP Energol HLP 32
- Esso Nuto H 32
- Mobil DTE 24
- Shell Tellus Oil DO 32

Note:

Slides and moving parts of the machine must be cleaned of dust and sawdust using compressed air.

10.4 Coolant Control

A coolant is put to use in case OMRM 121 Automatic end milling machine is purchased with an aluminum cutting option.

10.5 Conditioner Water Level Control

There must be no water in the glass tube on the left side of conditioner (reservoir no. 1). Any accumulated water should be discharged.

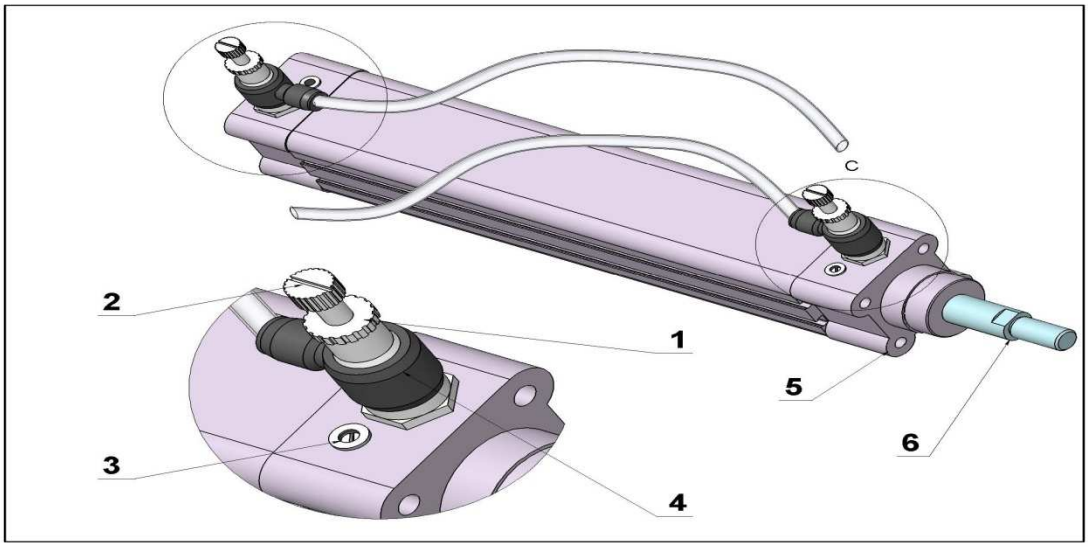
For this, you may press the plug under the tube upward or rotate it, depending on the type of the conditioner used for the machine.

10.6 Conditioner Oil Level Control

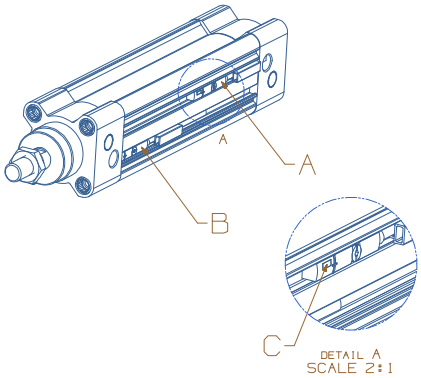
Check oil level within the transparent tube located on the right hand side of conditioner. If the oil runs out, cut the air of the machine and put oil into the conditioner. When oil amount is low, replenish using oil types equivalent to Shell TELLUS C 10.

10.7 Cylinder Settings

Loosen nut no. (1). Tighten or loosen bolt no. (2). This helps to adjust the pressure on the piston (6) within the cylinder (5) and to determine the speed of the cylinder to drive the engine. Loosening screw no. (3) can help to perform padding settings.



10.8 Cylinder Sensor Settings



A- Cylinder BACKWARD position sensor

B- Cylinder FORWARD position sensor

C- Sensor LED indicating light

Note:

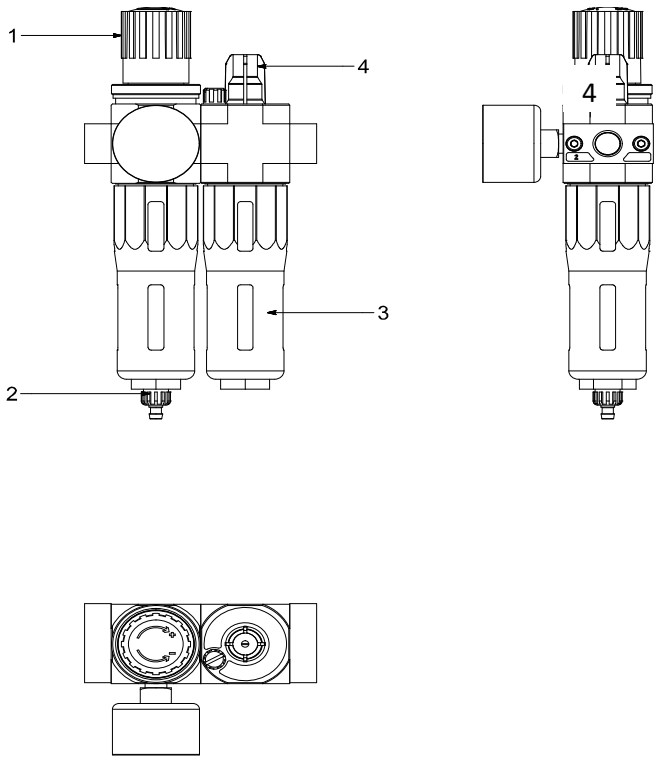
In normal standby position of the machine, backward and forward sensors of LED lights in relation to the cylinder position should be lit. You can adjust sensor settings using the special allen key located in the spare part box.

10.9 Filter Maintenance

For pressure settings: Pull up the regulator cap "1". If you rotate it clockwise, then outlet air pressure of conditioner increases. If you rotate it counter clockwise, then pressure decreases.

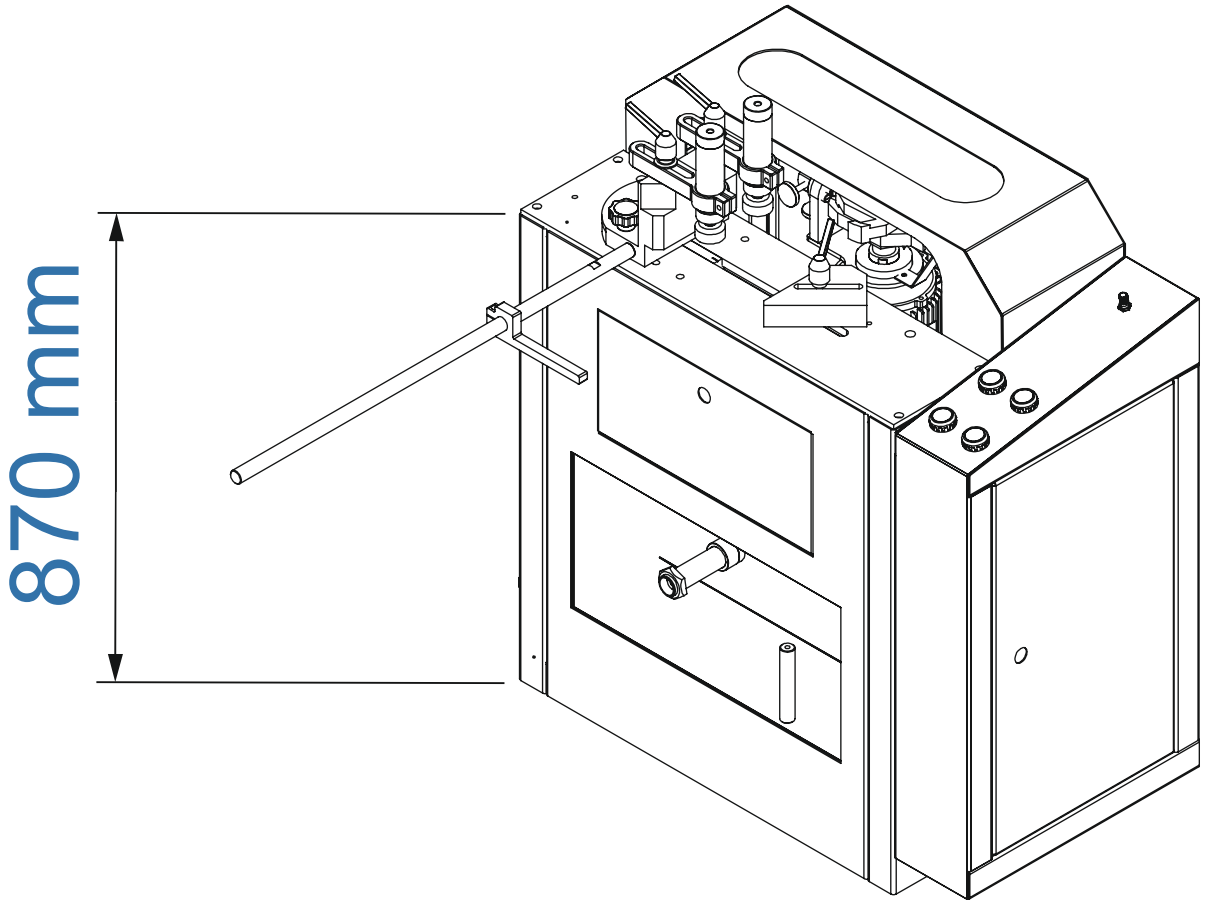
Discharging condensation fluid. Press or rotate the discharge screw "2" to discharge the water.

Putting oil into conditioner: Take off the oil container of conditioner "3" by rotating it clockwise and put pneumatic oil into container. Speed settings for lubricant: Turn adjusting screw “4” clockwise and thus you can reduce flow (dripping) rate of lubricant and decrease it by turning in the opposite direction.



10.10 Ergonomics

The machine is compliant with operating ergonomics. Operator's panel height and access to manually adjusted equipment are compliant. Electric and pneumatic panel access is viable. Ergonomic conditions for sampling, loading and pre-preparation are suitable.



11. Problem Detection Chart

FAILURE	CAUSE	SOLUTION
Machine Fails to Draw Power	• Main board switch Turned off	• Turn on main switch
Pneumatic Equipment Do Not Operate	• Machine fails to draw air	• Check the compressor line
Pistons Do Not Mangle	• Low pneumatic pressure	• Check regulator pressure settings
Profile does not get started even though it is served	• The rear piston may not be in visible touch with the sensor • The rear cap may not press on the switch. • The pistons to which scrapes are connected may not be in visible touch with them. • Rest switches may not hold it down	• Check the rear piston's sensor. • Check the rear cap's switch. • Check the pistons to which scrapes are connected. • Make sure you fully hold down the switches on profile rests
If the button is broken	• Dust may have been accumulated in contacts • Cable ends might be loose • It may arc and be adherent	• Clean by air • Tighten ends • Replace the button

In case valve is broken	• Valve coil may have been dislocated • Coil cables may be loose or burnt • Valve may have run out of oil • Dirt may have penetrated into reducers	• Remount the coil • Tighten or replace cables • Oil the valve • Check hose • If failure is not eliminated despite above-mentioned actions, then you must replace the valve
Engine does not rotate	• An end in the engine's electrical terminal may be loose • A switch connecting terminal end may be loose • The emergency stop button may be stuck	• Tighten loose ends • Tighten loose ends • Turn off the emergency stop button
Machine does not start operating	• Engine safety may have been activated as the electric engine is forced	• Turn on the switch on the engine safety

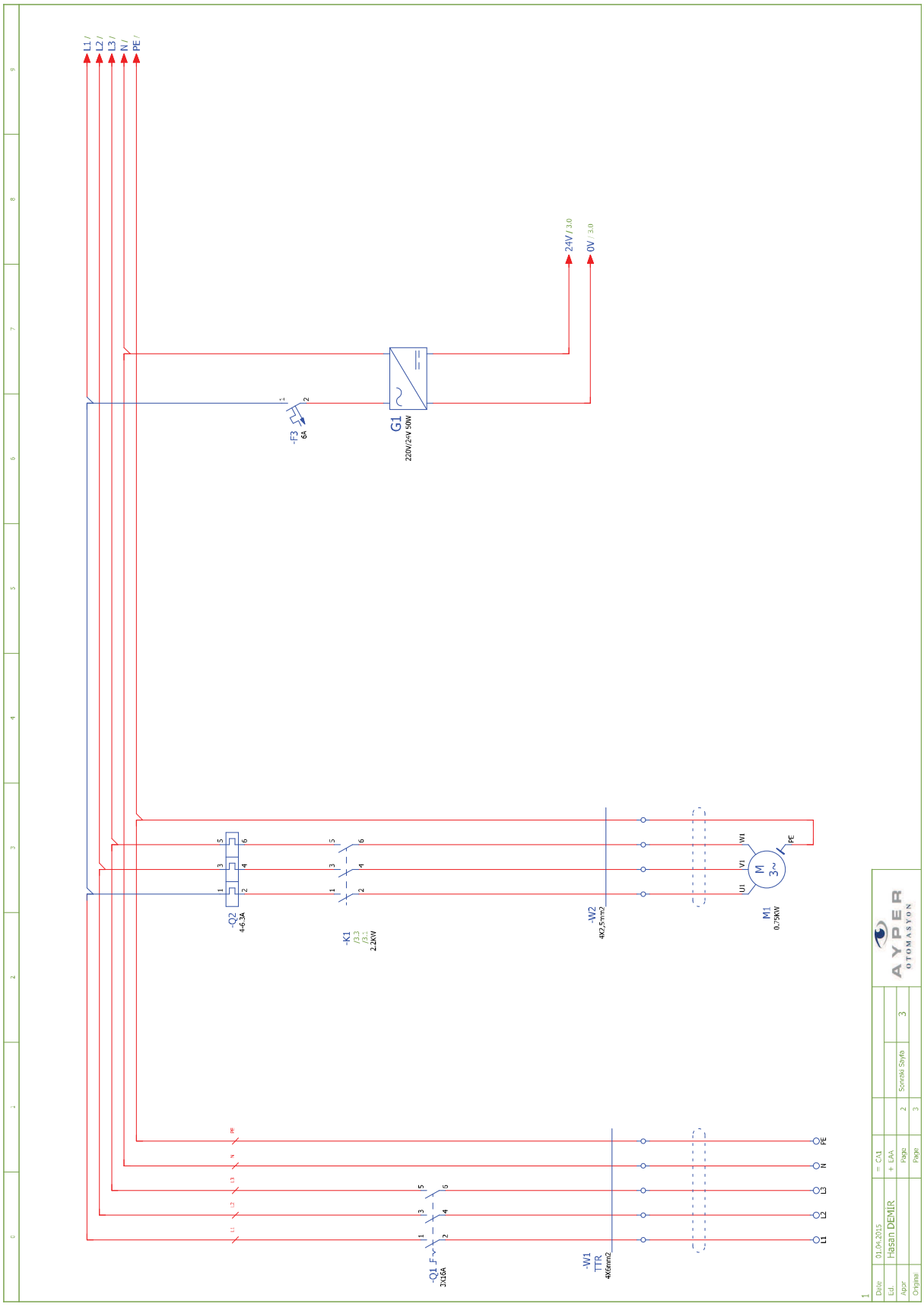
12. Warranty Disclaimer

The term of warranty starts as of the invoice date and it is 2 years.
The machine is under our company's warranty for any manufacturing and material-related defects.
If the machine breaks down within the term of warranty, the period of time spent to repair is added to the term of warranty.
The time to repair the machine is maximum 30 business days. This period starts as of the failure report date to the service center.
M.S.K. service officer or an authorized service agent decides whether the defected part and/or equipment is under warranty.
If the machine is guided by a technical service officer within the term of warranty, then transport, visa and accommodation expenses are covered by the buyer.
If the machine malfunctions due to any faulty material, workmanship or assembly within the term of warranty, it will be repaired without charging any fees including those for workmanship and replaced parts.
Manufacturing company is responsible for supplying parts and fault clearance and cannot be held accountable for labor loss.
Expenses for shipment and customs duty are covered by the buyer.
Terms of payment for the buyer are not affected by machine's warranty situation.
Buyer cannot claim compensation in any fault case and does not reserve the right to delay or cancellation of payment or cancel the order or claim compensation for labor loss. The warranty covers manufacturing and material-related defects, not the operating function of the machine.
Consumables required for machine setting are supplied by the buyer.
All warranty requests must include serial and model numbers.

12.1 Out of Warranty Situations

Consumables (milling, drilling bits, saws, teflon, etc.) are out of warranty.
Damages to arise during shipment.
Defects resulting from use of non-original parts.
Defects resulting from user's lack of attention or knowledge.
The machine must be initially started up by the service officer.
This machine is out of warranty for any defects resulting from the conditioner running out of lubricant and failure to use proper lubricants.
From mains voltage and
a. Phase gap
b. Reverse phase
c. Overcurrent
d. Lack of current
e. A machine damaged by overvoltage etc. is not considered under warranty.

13. Annexes


L1 /
L2 /
L3 /
N /
PE /
24V / 3.0
0V / 3.0
-F3
6A
G1
220V/24V 50W
-Q2
4-6.3A
-K1
/3.3
/4.1
2.2KW
-W2
4X2,5mm2
W1
V1
U1
PE
M
3~
M1
0.75KW
-Q1
2X16A
-W1
TTR
4X6mm2
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Sonraki Sayfa
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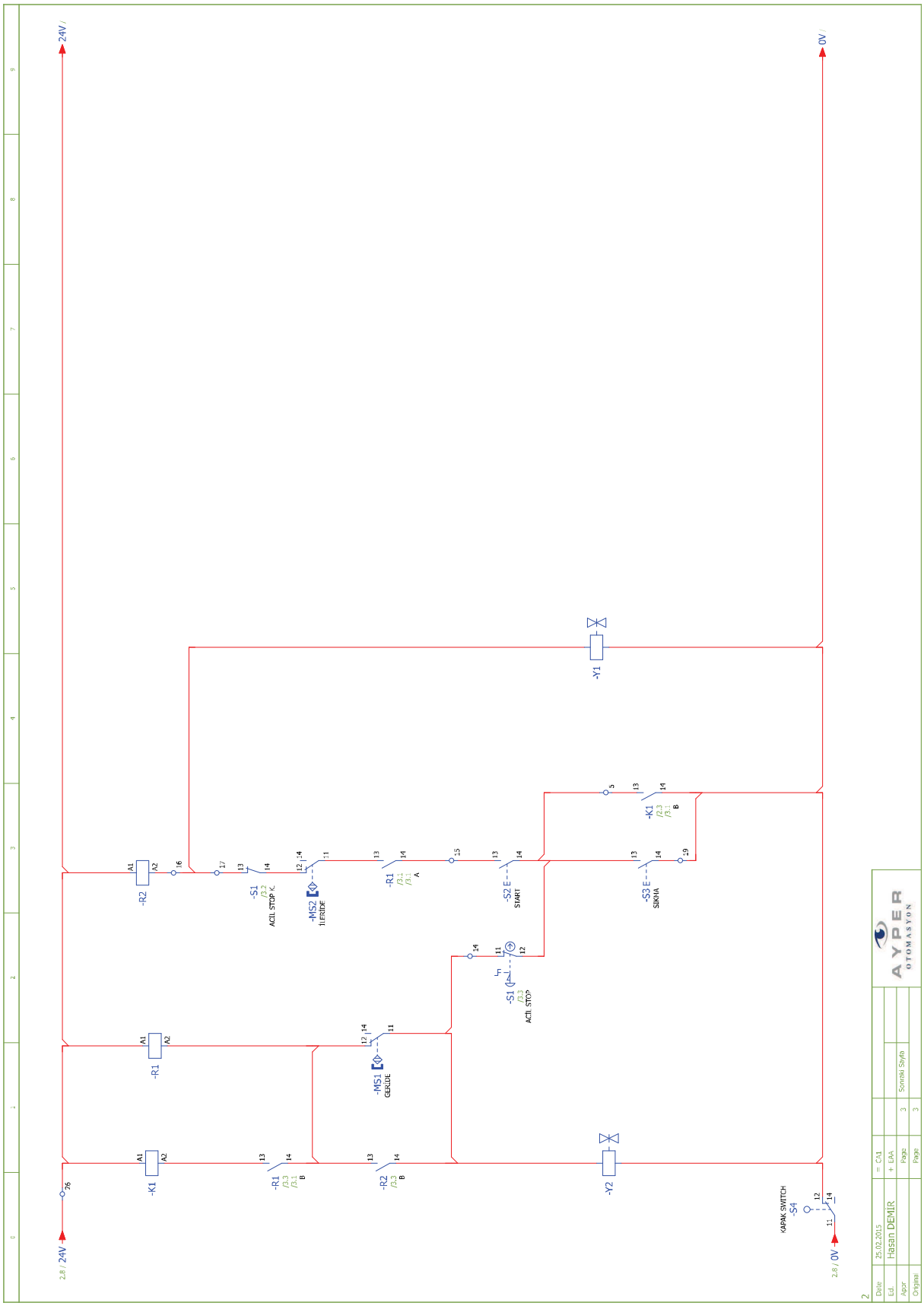
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0V
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-R2
-S1
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-MS2
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-R1
A
-S2
START
-S3
SIKMA
-K1
B
-S1
ACİL STOP
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GERİDE
-R1
-K1
-R1
B
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B
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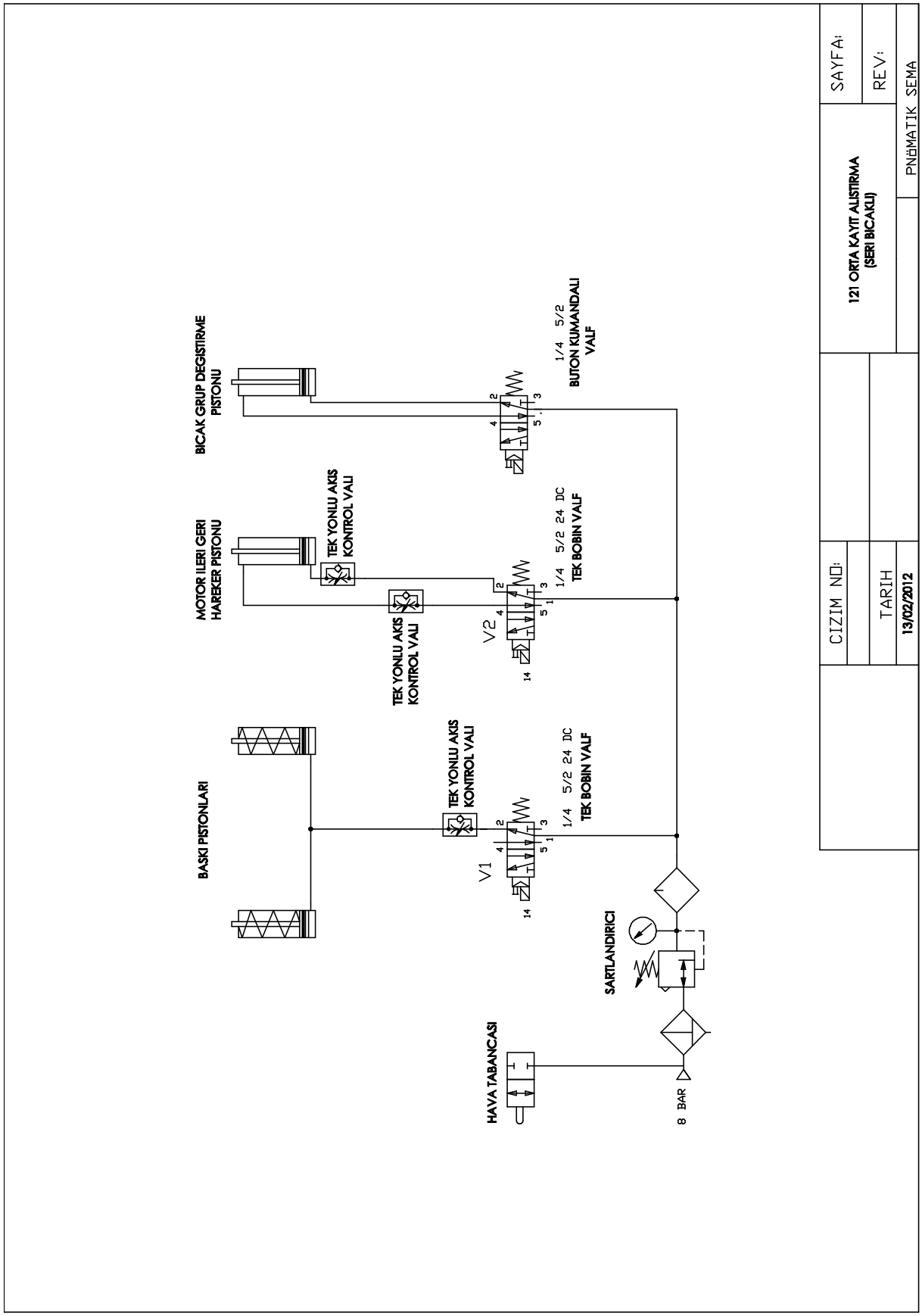
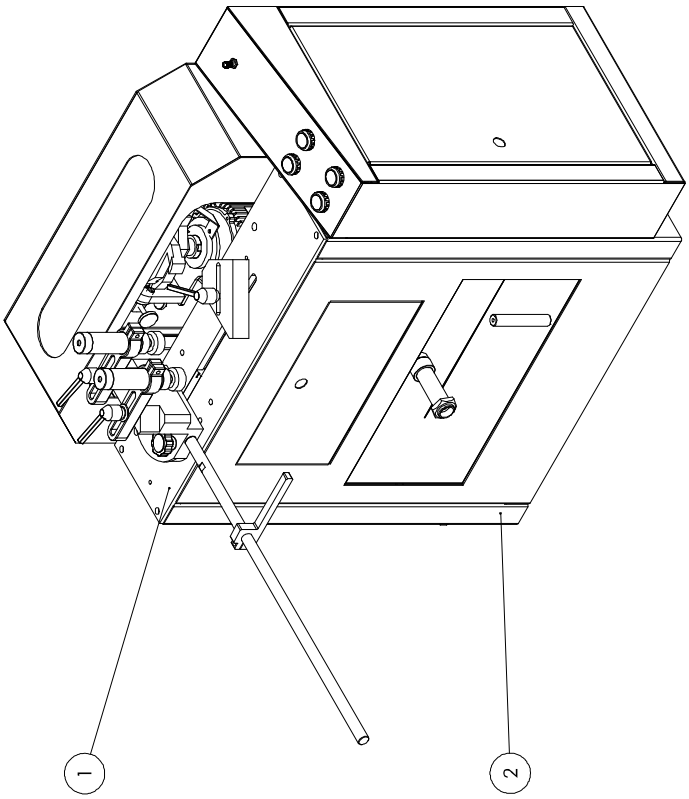

BICAK GRUP DEGISTIRME PISTONU
1/4 5/2 BUTON KUMANDALI VALF
MOTOR ILERI GERI HAREKET PISTONU
TEK YONLU AKIS KONTROL VALI
TEK YONLU AKIS KONTROL VALI
1/4 5/2 24 DC TEK BOBIN VALF
V2
BASKI PISTONLARI
TEK YONLU AKIS KONTROL VALI
1/4 5/2 24 DC TEK BOBIN VALF
V1
SARTLANDIRICI
HAVA TABANCASI
8 BAR
121 ORTA KAYIT ALISTIRMA (SERI BICAKLI)
PNÖMATIK SEMA
SAYFA:
REV:
CIZIM NÖ:
TARIH
13/02/2012



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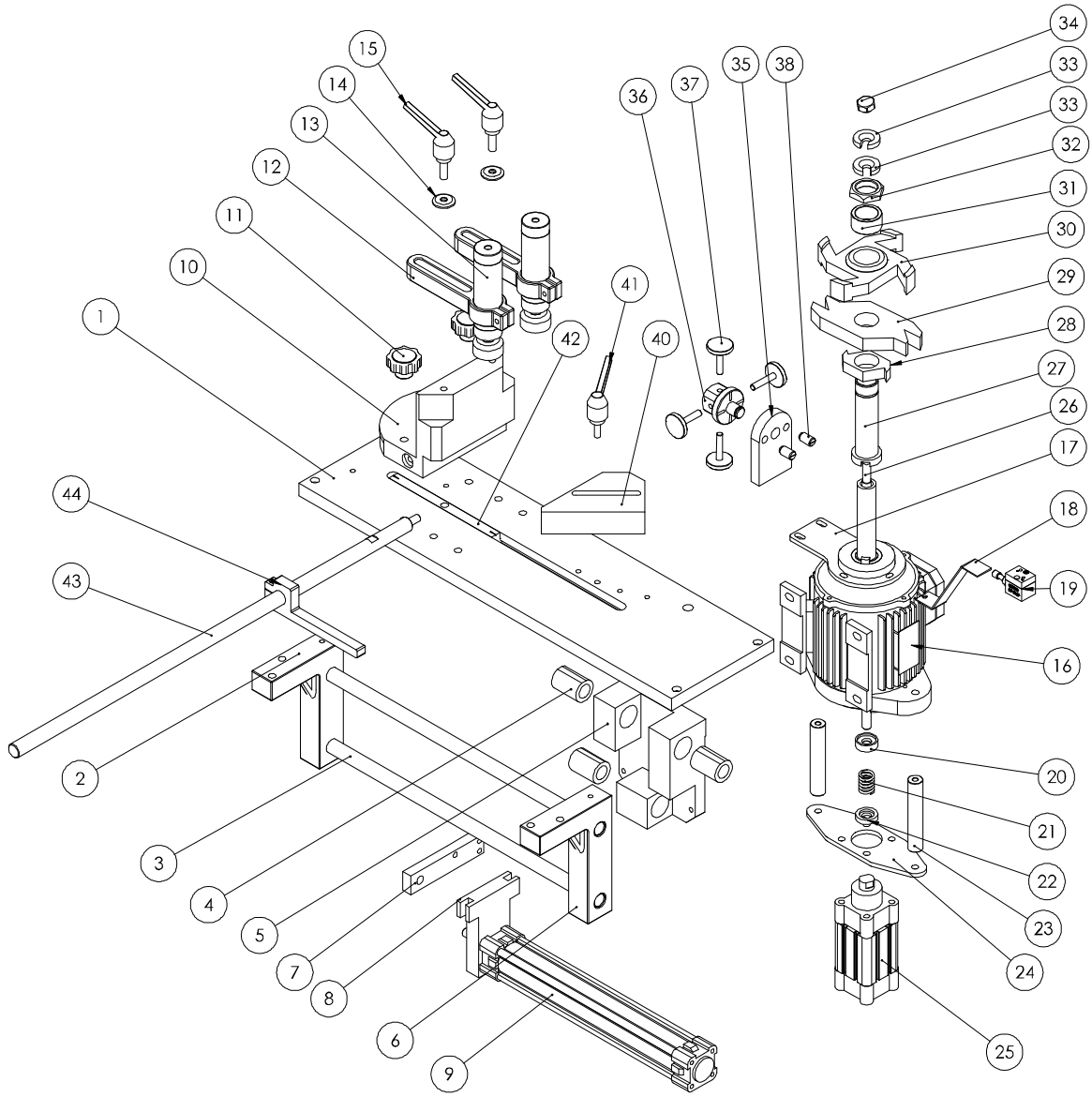
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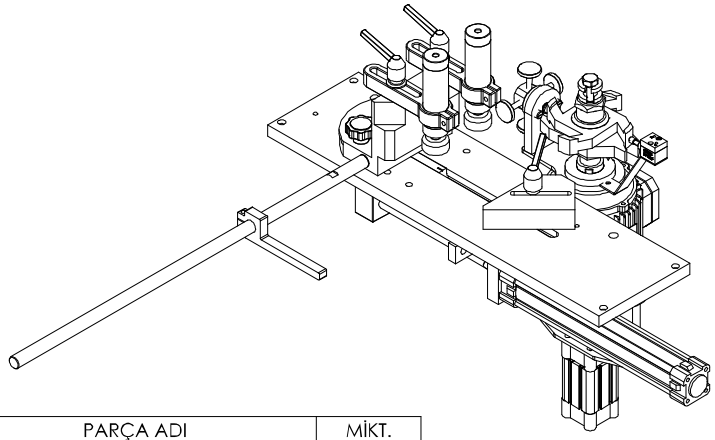

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5	0 40.000.045	TAŞIYICI SEHPA	1
6	0 40.000.002	GÖNYE KOLU	1
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8	0 40.000.004	PİSTON BAĞLANTI PARÇASI	1
9	0 40.000.063	PNÖMATİK PİSTON	1
10	0 40.000.071	AÇILI GÖNYE	1
11	0 40.000.061	M 10 ELCİK	2
12	0 00.000.029	PİSTON SABİTLEME PARÇASI	2
13	0 000.000.001	PROFİL SIKMA PİSTONU	2
14	0 00.000.014	SIKMA PULU	2
15	0 40.000.073	SIKMA KOLU	2
16	0 40.000.064	1.1 KW ÖZEL MOTOR	1
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21	0 40.000.136	YAY	1
22	0 00.000.012	YAY STOPERİ	1
23	0 00.000.019	MİL	2
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30	0 40.000.072	ALIŞTIRMA BIÇAĞI	1
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32	0 40.000.132	BIÇAK SABİTLEME SOMUNU	1
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37	0 40.000.134	PROFİL DAYAMA STOPERİ	4
38	0 40.000.066	AYAR SETSKURU	2
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6	0 40.000.049	KAPAK SWİCHİ	1
7	0 40.000.055	MENTEŞE	2
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17	0 40.000.052	STOP BUTONU	1
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19	0 40.000.056	HAVA TABANCASI	1