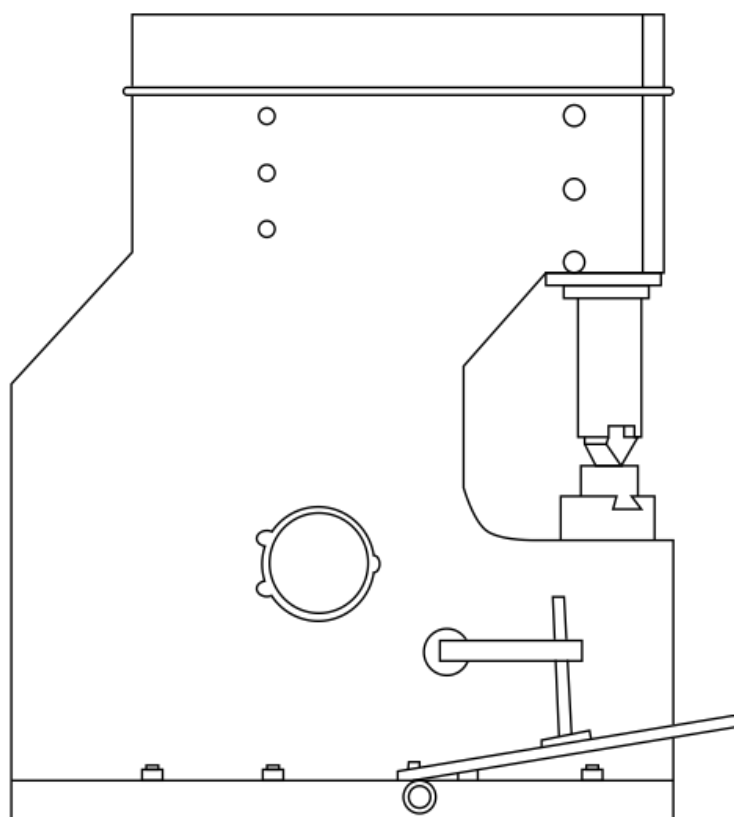


POWER HAMMER

MP60

NS: 2022-145



INSTRUCTIONS BOOK

PRADA NARGESA, S.L

Ctra. de Garrigàs a Sant Miquel s/n · 17476 Palau de Santa Eulàlia (Girona) SPAIN

Tel. +34 972568085 · nargesa@nargesa.com · www.nargesa.com

NARGESA CLIENTS

Prada Nargesa has more than 8.000 customers around the world. Some of our clients, those who offer service to third parties with the Nargesa machinery in their workshops, have been pleased to be part of this network that aims to connect them with possible future clients. In this way, all those people or companies that have a need for any part or tool that can be manufactured by using the Nargesa range of machinery, will be able to find a solution in their area to be able to satisfy their production requirements by hiring their services.



DO YOU WANT TO PARTICIPATE?

Send an email to nargesa@nargesa.com, include the following information and we will add you to this list.

We want to encourage all those who haven't participated yet in this great commercial network!

Company name

CIF/Tax Code

City

Country

Machine or machines

PRADA NARGESA

Prada Nargesa S.L. is a family business founded in 1970 located near Barcelona, Spain, with more than 50 years of experience in the sector of manufacturing of industrial machinery, and more than 10.000m² of facilities. Nargesa is a symbol of quality, reliability, warranty and innovation.

Our whole range of machines and accessories is manufactured entirely in Nargesa. We have a constant stock of 400 machines, and we have more than 16.800 machines sold all over the world.



Ironworker Machines

Ring Roller Bender and Pipe Bender

Non-mandrel Tube and Pipe Bender

Twisting / Scroll Bending Machines

Horizontal Press Brakes

End Wrought Iron Machines

Gas Forges

Iron Embossing Machines

Hydraulic Shear Machines

Hydraulic Press Brakes

Presses for Locks

Broaching Machines

Power Hammers

CERTIFICATES

Prada Nargesa has several certifications that backup both, the design and manufacturing processes, as well as the journey through exporting our products around the world and the quality of the manufacturing components we use for our machines. These facts turn into real advantages for our customers:



AUTHORIZED EXPORTER

- Faster customs procedures
- Reduction of tariff documentation
- Tariff preferences according to geographical location



INNOVATIVE SME

- Development in innovation, design and manufacturing technologies
- Certification and audit of efficiency in product and service
- Ability to foresee customer needs



R+D+I MANAGEMENT

- Manufacturing based on the R+D+I process
- Technological surveillance system

SUCCESS STORIES

At Prada Nargesa we believe that the testimony of our clients is our best guarantee, and that is why we like to expose some of the success stories that we have witnessed around the world:

PORTUGAL

Capela & Filhos



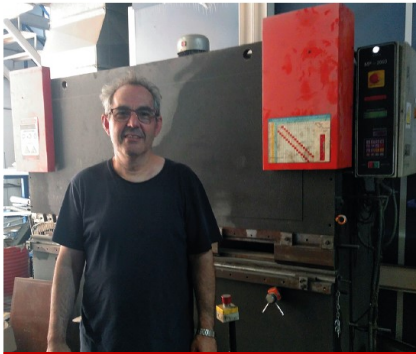
AUSTRALIA

Manufactured Alloy Xtras



ESTADOS UNIDOS

Madison Environmental Resources



ESPAÑA

CBET Decoración SL



UGANDA

Steel Limited



RUMANIA

Gala Metal & Design SRL

DO YOU WANT TO PARTICIPATE?

Send an email to nargesa@nargesa.com including the following information and we will add you to our website

Company name

Testimonial name

Post in the Company

Country

Descriptive text

Photography with the machine

ÍNDEX

1. GENERAL NOTES	4
1.1. Introduction	4
1.2. Transport	5
1.3. Electrical information	5
1.4. Maintenance	5
1.5. Safety	5
2. GENERAL WARRANTY TERMS	6
3. GENERAL SAFETY TERMS	7
3.1. General safety instructions	7
3.2. Important points	7
3.3. Explanation for operator	8
3.4. Personal protection	8
4. MAIN SAFETY ARRANGEMENTS AND SAFETY LABELS OF THE MACHINE	9
5. RISK ANALYSIS	10
6. TECHNICAL DATA	11
7. AN IDEAL POWER HAMMER	12
7.1. Heavy-duty operation	12
7.2. Operation	12
7.3. Lubrication systems	12
8. TRANSPORTING, LIFTING AND CARRYING	13
9. SAFETY AND WORKING AREA	14
10. MAIN DIMENSION OF THE MACHINE	15
11. MACHINE FOUNDATION PLAN	16
12. OPERATION SYSTEM OF THE MACHINE	17
12.1. Flow chart	17
13. FRONTAL PARTS GROUP	18
14. THE CRANKSHAFT	19
15. VALVE ADJUSTMENT	20
16. THE WORKING POSITION OF AIR VENTILE	21
17. PART LIST	22
18. EMERGENCY STOP	24
19. LUBRICATION SYSTEM	25
19.1. Lubrication	25
20. THE WORKING LENGHT	26
21. MAINTENANCE FOR RETURN FILTER	27
22. CHANGING OF THE HAMMERS	28
23. ELECTRICAL SHEMAS	29
24. TOOLING	30

1. GENERAL NOTES

1.1. Introduction

This User's Manual is absolutely for your safety and it's essential for the machine to have a long production life. As long as you keep up with our Manual you will be able to run your machine smoothly and safely. Keep in mind that the machine is designed absolutely to perform at maximum safety and for an efficient working.

In this Manual you can find instructions and information about:

- Correct installation of the machine
- Description of the functional parts of the machine
- Set-up and start-up adjustments
- Correct standard and scheduled maintenance
- Simple safety regulations and accident prevention.

Therefore, as far as the user's safety is concerned, in this handbook the possible risks connected with machine operation are pointed out as follows:

Attention: Showing the risks of accident, if instructions are not followed.

Warning: Showing the probable damages to the machine or equipment, if the instructions are not strictly followed.

Note: It gives useful information.

It is certainly necessary that the operator carefully reads and understands all the Attention and Warning Notes specified in this Manual before starting with operation of the machine and before any lubrication or maintenance intervention.

In all steps of installation, operation and maintenance Safety must be your first concern for the protection of yourself, other users and the service of the machine. In case of any failure please first refer to this Manual, and then if a solution cannot be found contact first of all the distributor where you purchased our product. Do not forget to refer to the drawings and the numbers for any spare part needed or to define any problem. Make sure you have the serial number and production year of the machine.

Our technical staff will make their best to help you in the most convenient way.

1.2. Transport

As soon as you receive the machine, check for any visible transport damages. Should there be any visible damages; report it straight away to the transporter company and of course PRADA NARGESA SL or your supplier.

Remove any protective crates around the machine and read the instructions on related chapters of this Manual carefully to set up the machine. If the machine is damaged while transport, immediately take some photographs for insurance claims.

Take precautions while loading / unloading or moving the machine to avoid any injuries. Refer also to related chapter of this Manual for the best way of handling the machine.

1.3. Electrical Information

All necessary connection procedure can be found on this Manual. Do not try to connect the machine before reading these procedures and fully understand the drawings. For any unclear matters get in touch with Prada Nargesa S.L. or any of the Nargesa distributors. Have the machine connected by a qualified electric technician. For, as we made clear in the “general conditions of guarantee”, under no circumstances installing mistakes, including electrical connection mistake, can not be covered by guarantee agreement. Always turn off power before making any connections or disconnecting the machine.

1.4. Maintenance

Your machine is designed and produced to work efficiently and smoothly. To achieve this you should also take care while operating the machine. And consider the maintenance section to have the longest life for your machine. Try and use original spare parts where necessary and most importantly do not overload the machine or do not make any unauthorized modifications.

1.5. Safety

Take all precautions possible to avoid any personal injury while using the machine. Keep in mind to protect the third party people around the machine. Refer to safety directives.

2. GENERAL WARRANTY TERMS

- Your machine is covered by manufacturer's guarantee for a period of 12 months from the date of purchase against manufacture defects. The warranty period does not exceed 18 months from the date of delivery from the manufacturer's factory.
- Warranty covers only manufacture defective parts and / or components that are reported as "defective" by PRADA NARGESA or the Agent Technician and must be reported to Sahinler in writing by fax or email.
- The manufacturer is responsible for the supply of free of charge spares only and cannot be held responsible for loss of work.
- Shipping and customs fees for the spare part must be paid by the end-user.
- If a technician travel is necessary NARGESA will not charge for labor and workmanship costs but the customer must pay traveling and accommodation charges.
- Warranty claim does not relieve the Customer from payment obligations.
- The Customer can not ask or demand any reimbursement of damage nor the Customer will have the right to extend or delay payment obligations nor the cancellation of order and the refunding of damages as the guarantee is given for the defective parts of the machine and not for the job.

Note: All warranty claims must be applied with the Model, Serial Number and the Manufacture Year of the machine.

3. GENERAL SAFETY TERMS

3.1. General Safety Instructions

Following instructions are meant for the operator of the machine and it is the End-User's responsibility to make sure the operator reads and understands the following and the User's Manual for safe operation.

- Read the User's manual before operating the machine.
- Never touch rotating or moving parts.
- Always inform electric faults to electric technicians.
- Keep your working dress or long hair or necklace etc away from rotating parts.
- Make sure you know the position of Emergency Stop Buttons on the machine.
- Switch off the machine when NOT working.
- Work with necessary safety clothes if necessary (safety shoes, glasses , earplugs etc).
- Control the Safety features before working and ensure they are working properly.
- See and understand Safety Labels on the machine.
- Perform periodic maintenance.
- DO NOT overload the machine.
- If you see abnormal behavior of the machine, stop the machine and inform your supervisor immediately.
- Be careful of other people around the machine during operation.
- Never modify electric unit.
- Never remove any mechanic or electronic safety features from the machine.
- Be extremely careful during transport or re-placement of the machine and follow transport instructions in the manual to safely handle the machine.

3.2. Important points

- The machine must be used by qualified and technical personnel at all times.
- All modifications and changes on the machine without the written confirmation of manufacturer is forbidden and if such a case occurs all responsibilities of the manufacturer will be out of consideration.
- Any such modification is also breach of CE directives
- The machine can be stored and used in closed areas however beware not to put it near any explosive, flammable or in any dangerous articles.
- In case any use of non-original spares or accessories and in case of injuries then, the manufacturer will not be responsible of such claims.
- Beware of third persons entering the operation area of the machine.
- Beware of any obstacles entering the operation area of the machine.
- In long term stand-by's turn the main button to position 0 (zero)

3.3. Explanation for operator

Operator under age of 16 years to operate the machine is strictly forbidden (EC-Directive). The operator of the machine should carefully read this manual and understand the danger he might be in if he misuses or abuses the machine. If any part of this manual is unreadable or illegible please contact to the dealer and manufacturer

The owner of the machine should be responsible for operating the machine with qualified personnel.

3.4. Personal protection

Gloves and safety glasses and safety cap are recommended during operator.

Attention:

- No material should be fed if the machine is running.
- All emergency stop must be easily accessible.
- The user must be careful for third persons entering the operation area of the machine.

Note: If any labels are lost or unreadable contact the manufacturer for new supplies.

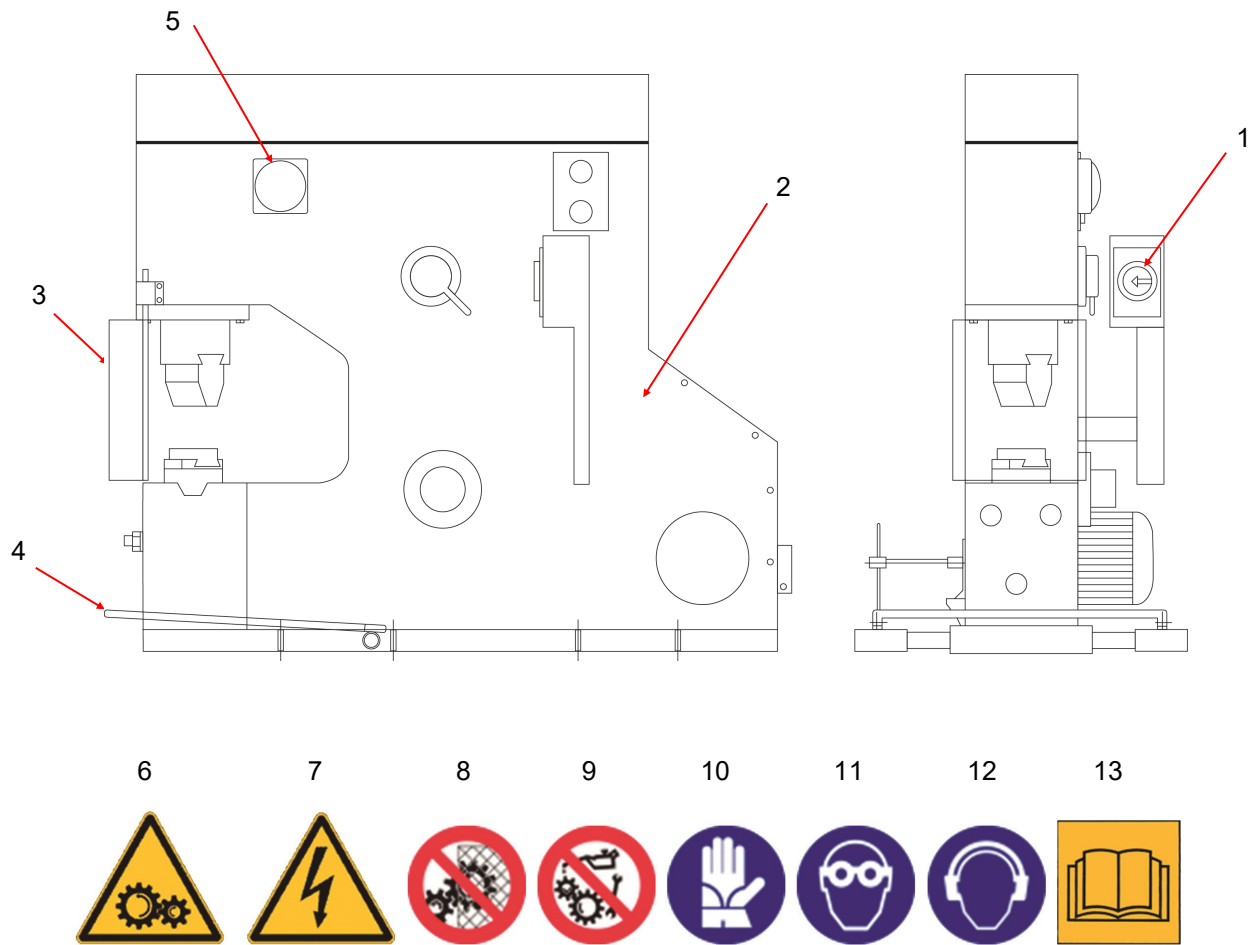


PUSH THE “EMERGENCY STOP” BUTTON IN EMERGENCY POSITION AND PULL YOUR FOOT.



DON'T USE COLD MATERIAL AT ALL

4. MAIN SAFETY ARRANGEMENTS AND SAFETY LABELS OF THE MACHINE



- 1 Main power button
- 2 Machine body
- 3 Protection cover of hammer
- 4 Foot pedal; use the "foot pedal" to operation the machine
- 5 Emergency stop; "emergency button" instantly stops all the machine activity by disabling the electric supply until released.
- 6 Don't approach to the moveable parts.
- 7 Electric current
- 8 Don't put to the moveable parts.
- 9 Stop the machine when maintenance and repair
- 10 Use the glove
- 11 Use the glasses
- 12 Use the earphone to environment noisy
- 13 Before use the machine, read the user book

5. RISK ANALYSIS

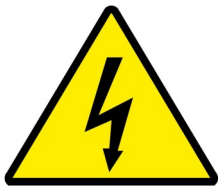
In machine working time there can be some kind of risks. To avoid these risks you must follow the safety steps and keep away from taking the risks.



The operation is done in hot temperature so there can be risks.



There is a risk of burry fly out during the hit
There is a risk of spreading metal powders.



Natural electricity risks can be occurred.

6. TECHNICAL DATA

TYPE	MP60
Working outfit	Air - pressure pneumatic
Nominal dropping	60 Kg.
Number of hits	220 rpm.
Motor power	7,5 HP 1400 RPM
Hit course	Max: 230 mm.
Oil system	Pneumatic oiling system
Control	PEDAL
Hammer and anvil	Heads of hammer and anvil are interchangeable
Approximate weight	1190 Kg.

ILLUSTRATIONS AND SPECIFICATIONS ARE NOT BINDING.

WE RESERVE THE RIGHT TO CHANGE THEM WITHOUT PRIOR NOTICE.

7. AN IDEAL POWER HAMMER

7.1. Heavy-duty operation

The MP60 power hammers have been manufactured with a solid structure. That is why in high-cost works you always think of power hammers. In double-effect air-pressure operations as well as heavy operations high performance obtained. The steel-construction body, on which all parts and units are installed gives dynamic rigidity.

7.2. Operation

The machine body contains two cylinders, run by an electric motor, the fly-wheel transfers air from the back cylinder to the front cylinder, at the same time producing the shock. No external air is necessary.

These power hammers are used economically in small, medium and mass-production mechanical work shops , reducing physical labour to a minimum.

Power Hammers have a wide working range including plain and carved mould works, inflating, drilling, hot cutting, bending , bounding, open mould workings and many similar works like this.

7.3. Lubrication systems

Lubrication occurs with a developed, mechanical lubrication system, which is adjusted with a level according to working frequency.

8. TRANSPORTING, LIFTING AND CARRYING

Before preparing the machine for installation and start-up, an accurate visual control is required in order to detect any possible damages occurred during transporting and handling phases.

Your machine is located on a wooden grid and the package is a waterproof plastic cover.

If one or several parts of the machine have been damaged while shipping, the installation of the machine has to be suspended. PRADA NARGESA SL has to be informed of the unexpected occurrence straight away.

While lifting take care of these points:

- Always lift and carry the machine from the handles.
- Take precautions for handling and lifting.
- Check if the load is properly balanced by lifting it some centimeters.
- Lift the machine, proceeding with care, without sudden accelerations or quick changes of directions.
- Place the machine where it must be installed, lower the machine slowly till it touches the floor.

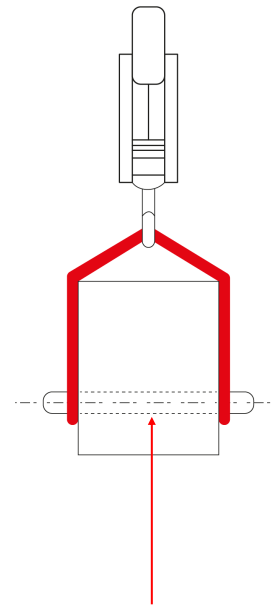
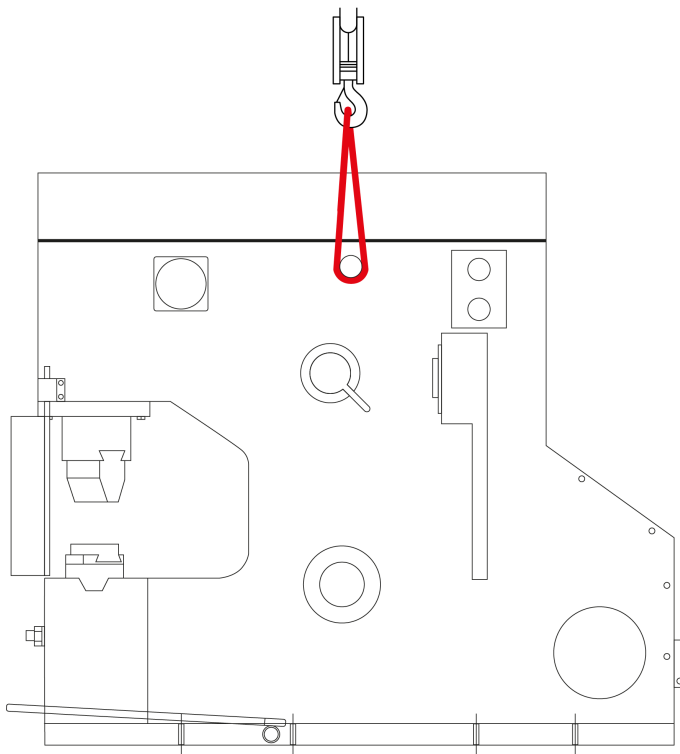


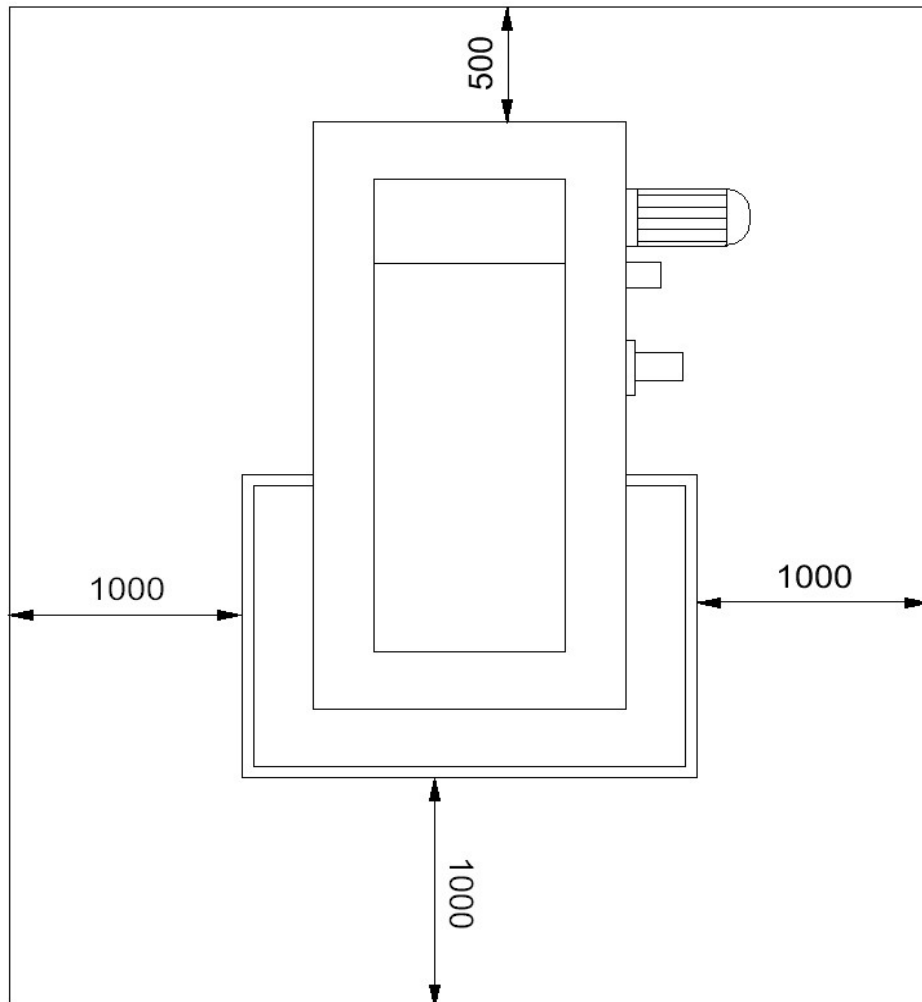
Figure 1 shows a way of carrying the machine.
You can use a crane with hook or a forklift for handling operation.

Steel bar St 45, Ø25, Length: 450 mm.

Attention: Lifting and carrying operations should be carried out by skilled workers, such as truck operator, crane operator, etc. Also, it is necessary to keep in mind that having large safety margins will provide you efficient working conditions and enable you to take into consideration most of the precautions.

9. SAFETY AND WORKING AREA

The length of empty working free areas around the power hammer machine.



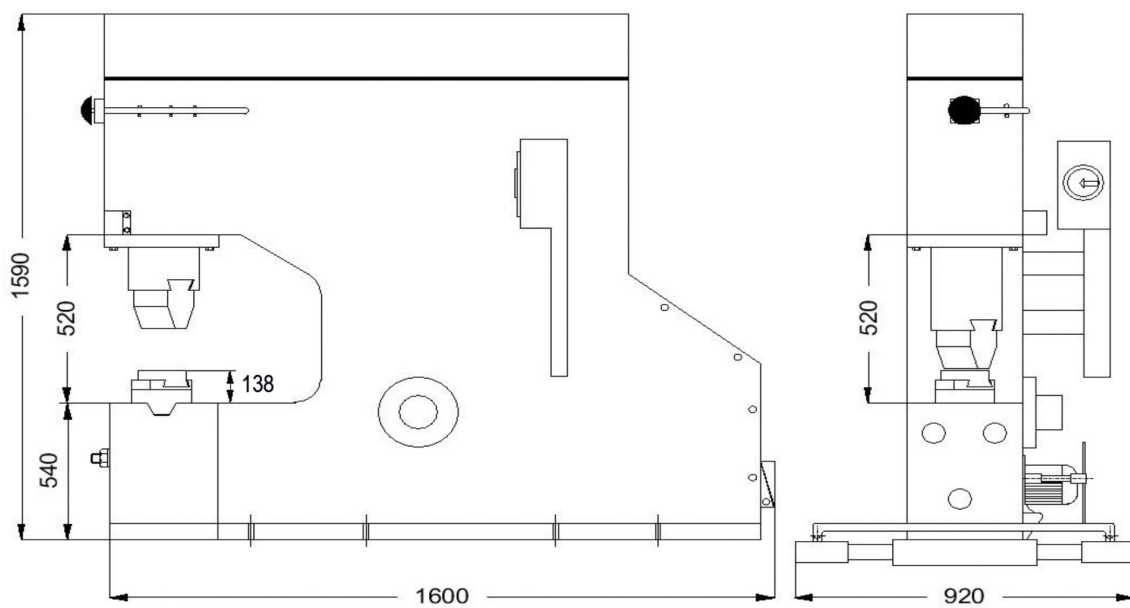
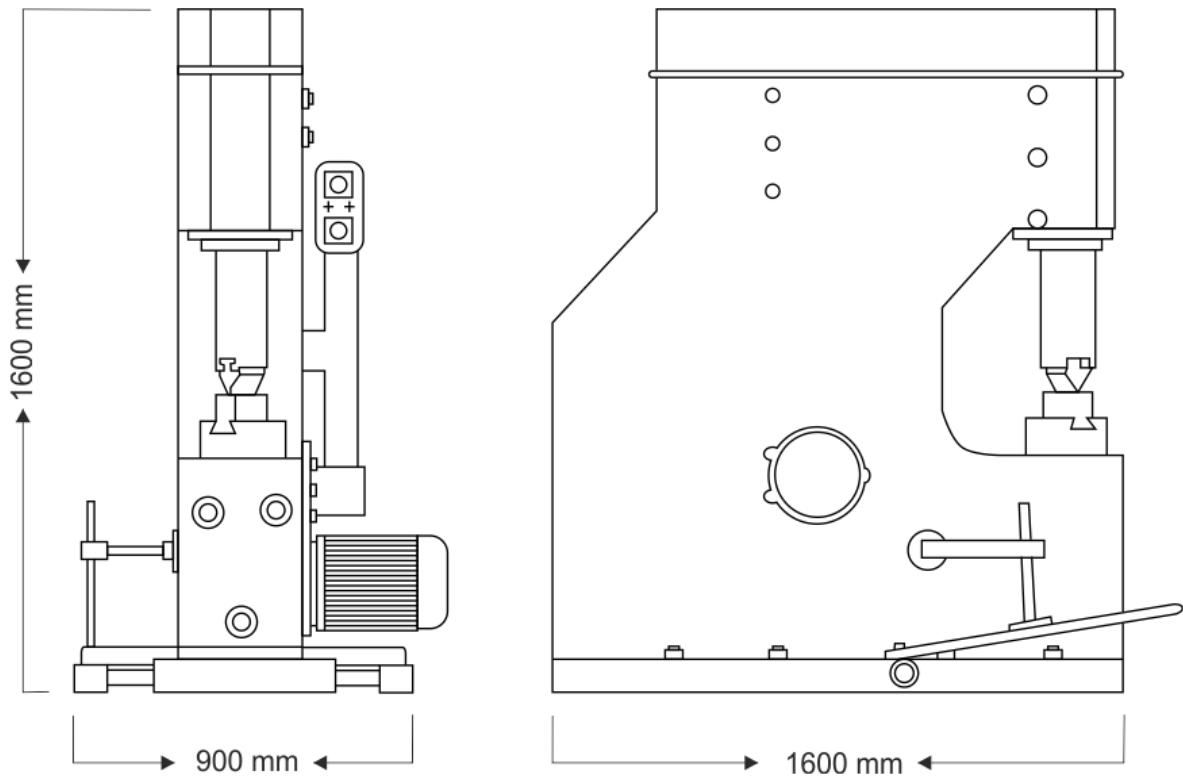
The manufacturer doesn't accept any responsibility for damages due to the nonobservance of the above specifications.

Note: All machines must be carefully adjusted before operation with a water



gauge.

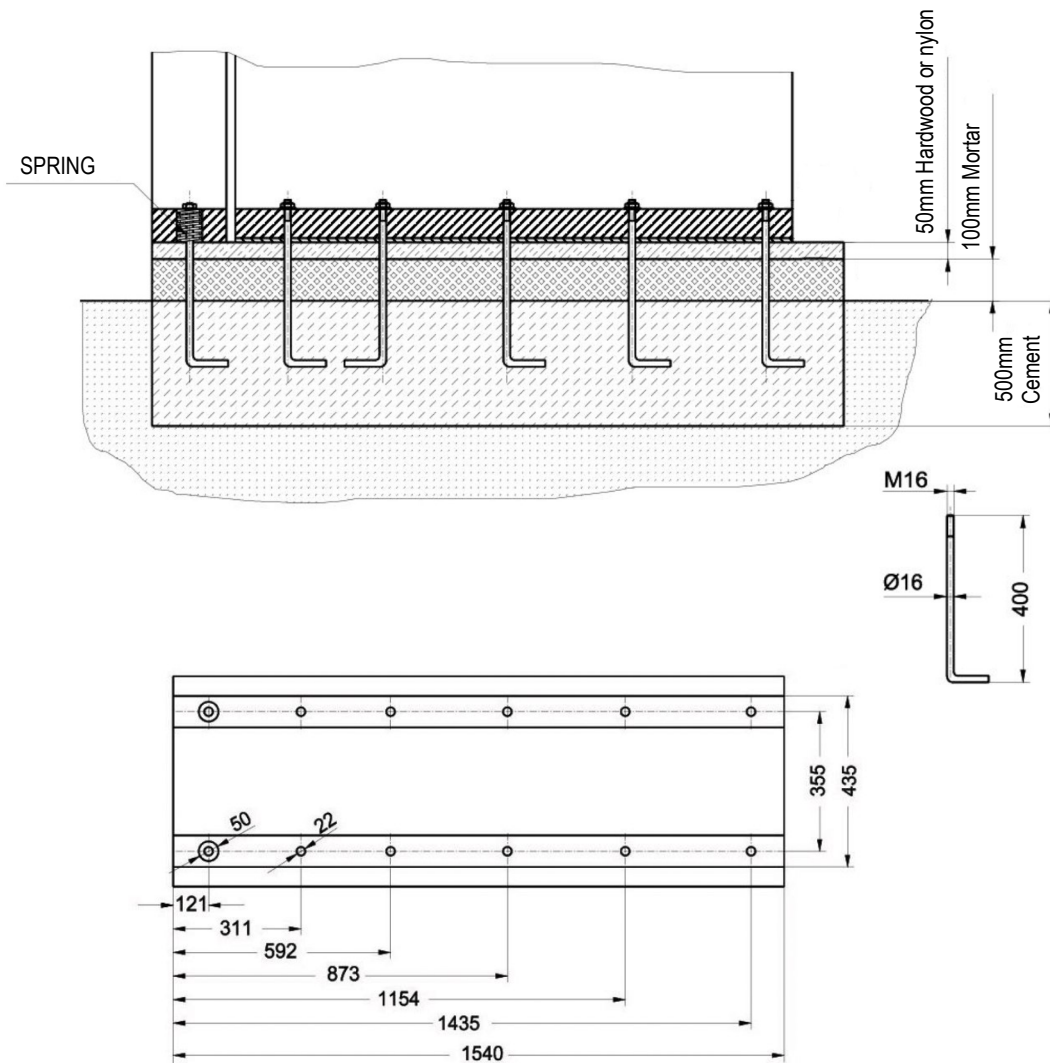
10. MAIN DIMENSIONS OF THE MACHINE



11. MACHINE FOUNDATION PLAN

The machine works with very high vibration. Therefore it must be firmly planted on a cement base.

1. Dig a hole 500 mm deep and prepare a formwork with a surface of 1000x1800mm
2. Fill up the formwork with cement.
3. Place the foundation bolts in place while the cement is wet.
4. Remove the formwork and fill up with sand the empty space around, between the hole and the cement block. This will absorb most of the vibration from the impact of the stroke.
5. Wait until the cement is dry.
6. Prepare a 100 mm height formwork to fill the whole cement surface with mortar. This should be composed of small pebbles, for a long duration.
7. Place 50 mm thick hardwood or nylon on the mortar and place the machine on top of it, to fix it with the foundation bolts.



BIG and ISOLATE THEN FILL WITH CEMENT and BORDER WITH FINE SAND IF POSSIBLE

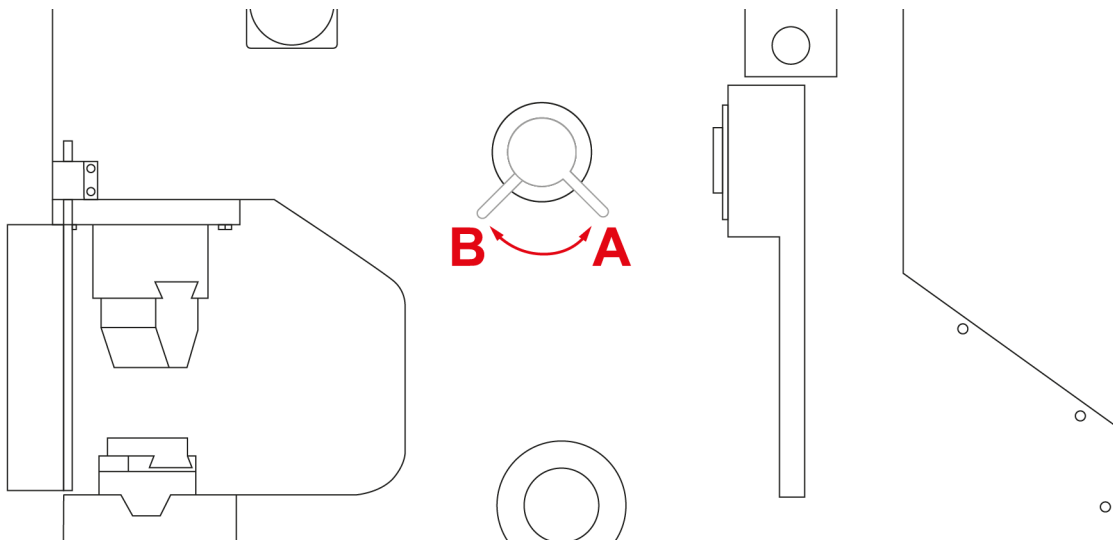
12. OPERATION SYSTEM OF THE MACHINE

Before start to work, make sure that the handle be on "A" position (as shown in

the figure). Then start the machine and after a few seconds working, pull handle to "B" position. Now the machine is ready to proceed hammering operation. When the machine stops pull handle back to "A".

When the handle is on the position of "A" air is compressed from rear cylinder by the way of canal to outside ventile it doesn't let air to enter into the hammer.

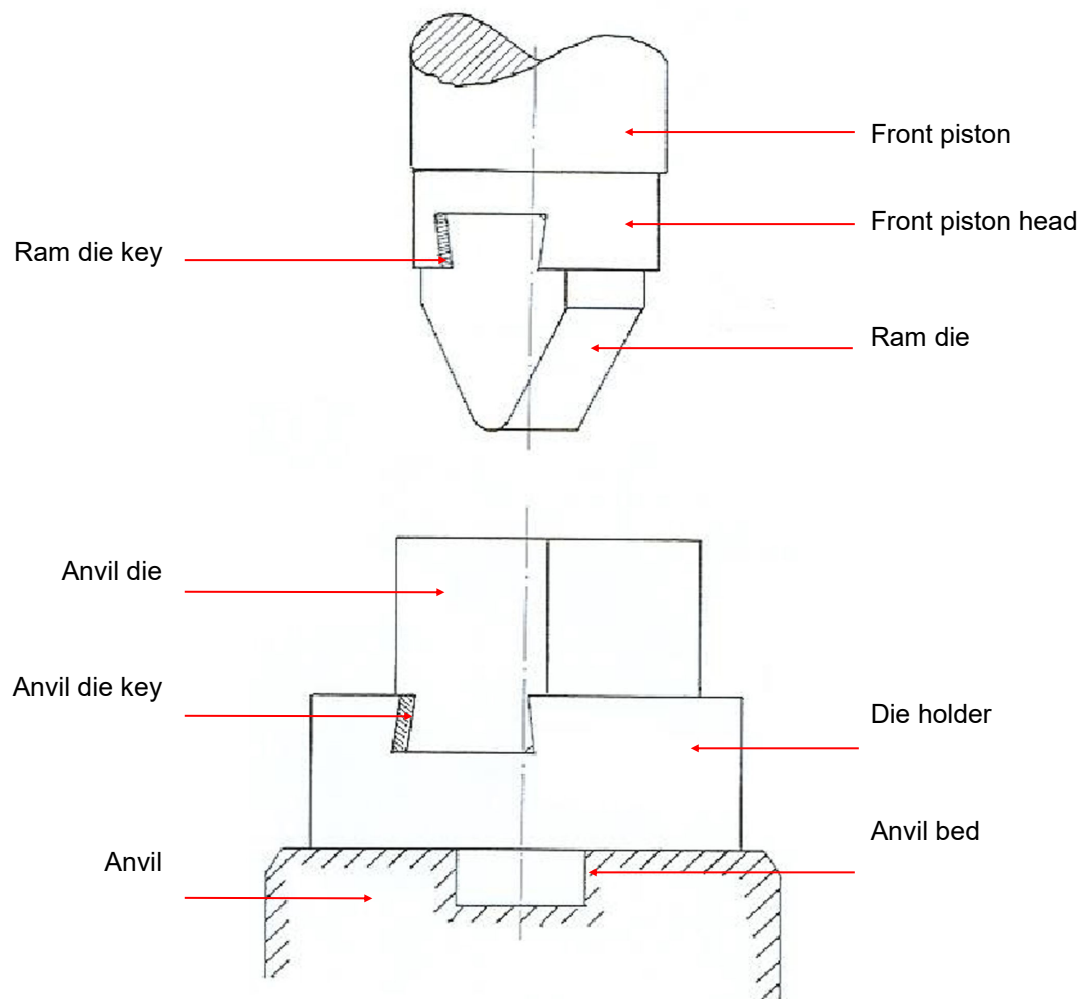
Thus motor works and in a short time it reaches to high turning velocity. That means, the air moves from cylinder to frontal side of power hammer, so , hammer begins to hit upper body.(when handle is on "B" position).



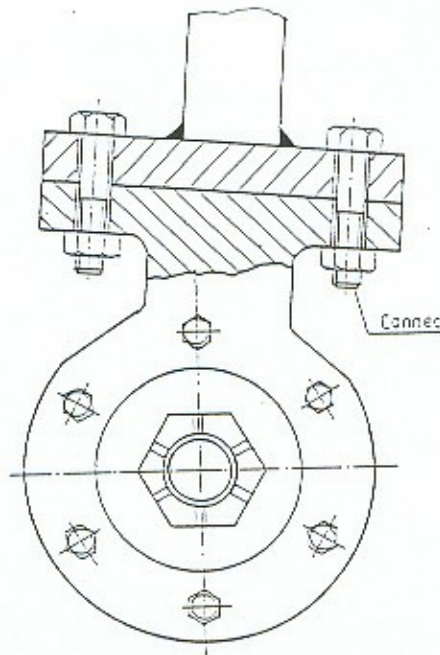
12.1. Flow Chart

1. Make the necessary electrical wiring connection and check if the motor is turning right
2. Clean up all protective oil on machine piston
3. Turn right the main function switch then machine starts to run(you will hear the voice)
4. The machine has A/B lever.Please take the lever to the B position.
5. After the lever on B position the piston starts to get upper
6. Then push the foot pedal then piston will start to hit down
7. In this case you can forge the parts you need
8. Please pay attention to lubricate the machine daily
9. Just open oil pump half tour during the machine operation
10. See oil level glass if the oil is finished please fill up the oil tank
11. When closing the machine off First get the A/B lever to the A position
11. When closing the machine off First get the A/B lever to the A position
13. Also pay attention during changing the die(Tool)do not hit the hammer to the surface of the piston. This is very important point in order not to damage the piston

13. FRONTAL PARTS GROUP



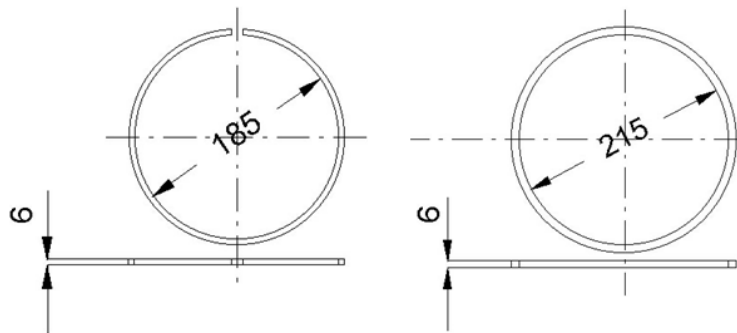
14. THE CRANKSHAFT



Piston arm is pinned to the shaft to avoid the parts getting loose which are connected.

Before changing belt. Piston arm must be loosened (by using two screwdriver to counter bolt and nut.)

At every 200 working hours, the bolts and nuts must be controlled and tightened once a more.



Front hammer ring

Back piston ring

15. VALVE ADJUSTMENT

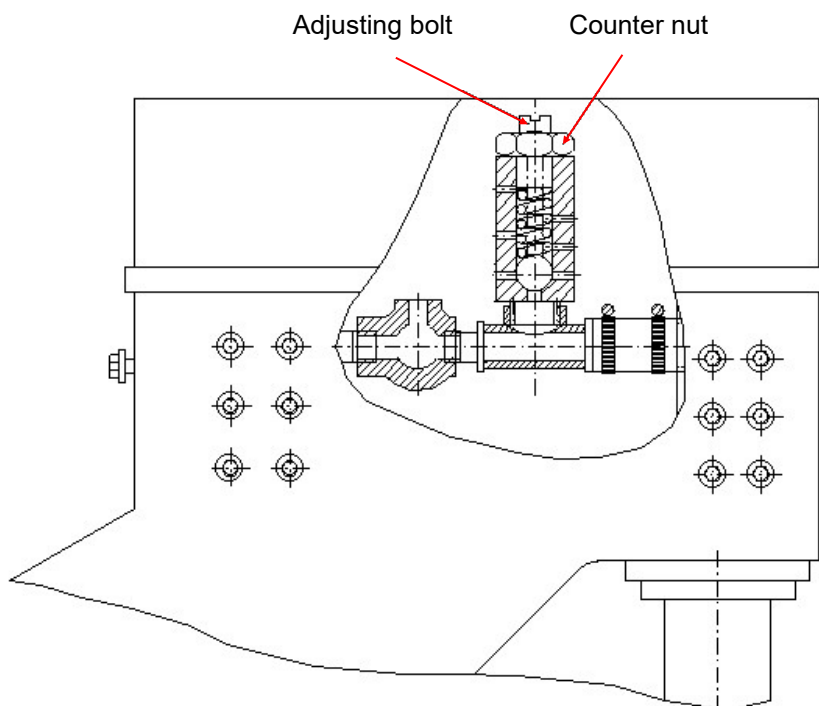
This valve is used to adjust

The machine is adjusted in the factory for optimal hit. It **MUST NOT** be changed.

If this adjustment is changed for any reason and if you need to readjust the hitting power of the machine follow these steps:

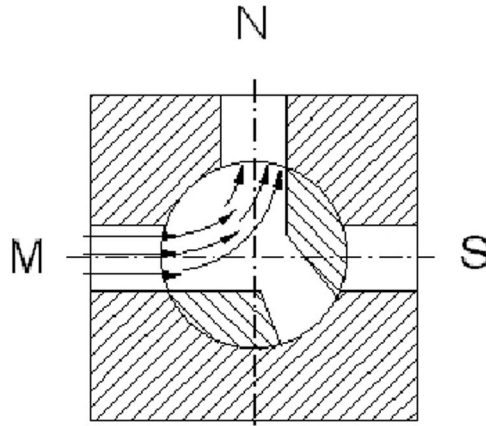
1. Loosen the counter-nut
2. For harder hits rotate the adjustment screw clock-wise
3. For softer hits rotate the adjustment screw counter-clock-wise
4. Always leave min. 2 mm distance between adjustment screw and the spring
5. If the distance between spring and screw is less than 2 mm the hammer will not move

If the distance is too much hammer will hit irregular



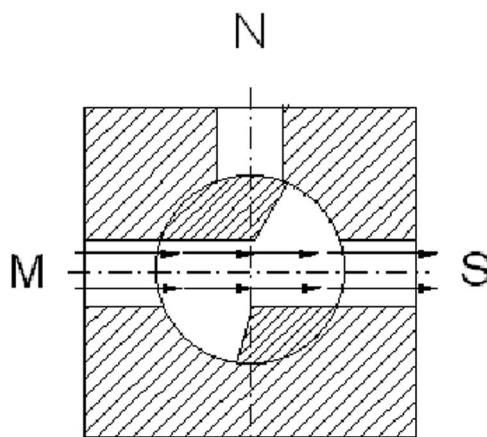
16. THE WORKING POSITION of AIR VENTILE

1. The air ventile of machine is shown in the figure, is the position of stop position. When the handle comes to A position, the air is pumped out from compression cylinder. Because M and N canals are open so it is sent out from N canal passing over a filter. At this position food-pedal stays above

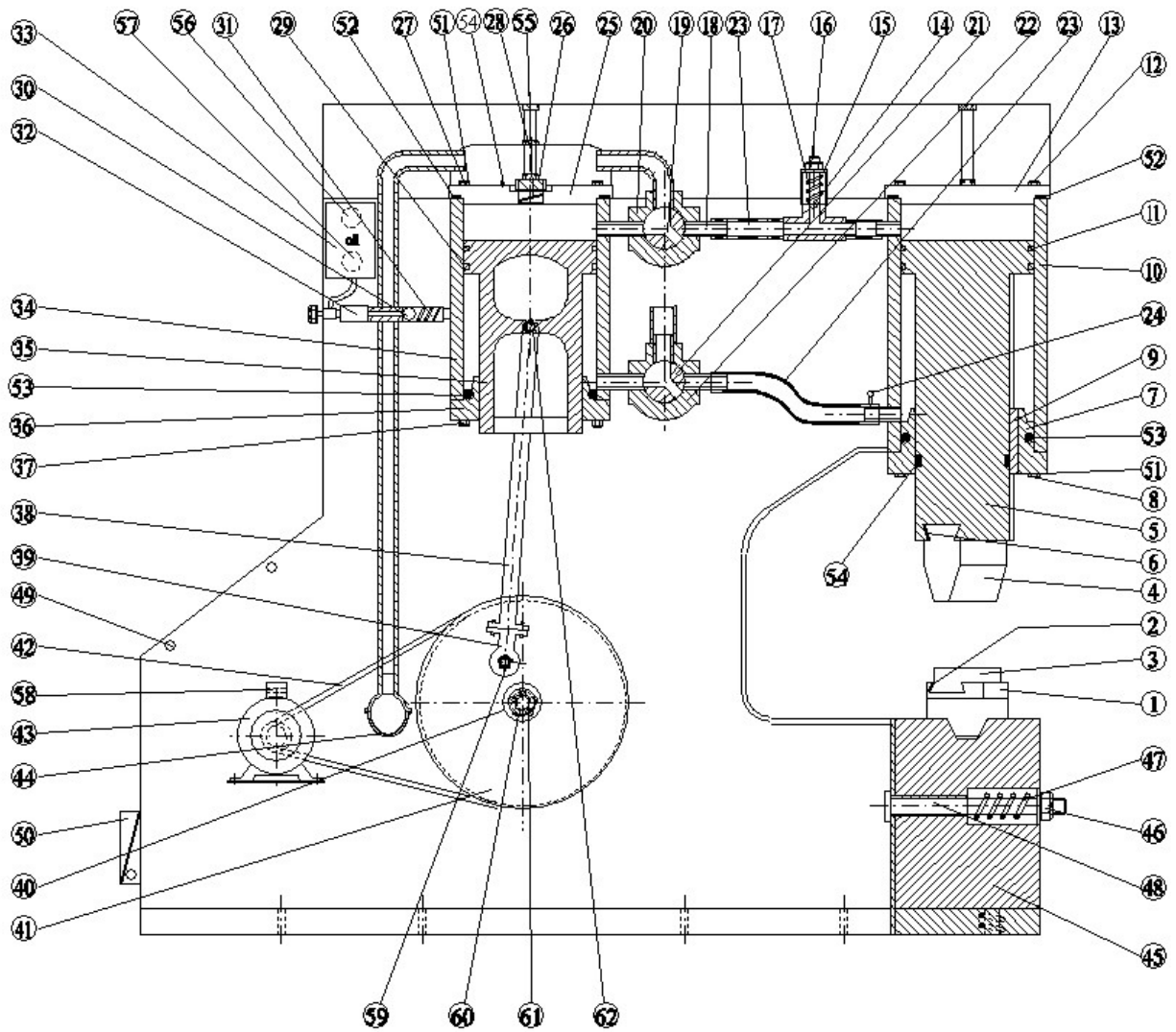


Note: In this position you can not pump air into the front cylinder. If it goes into front cylinder the hammer might loose

2. In the second figure, air is compressed into hammer directly. In this connection, power hammer begins to work in a full tempo. Because the N canal is closed.

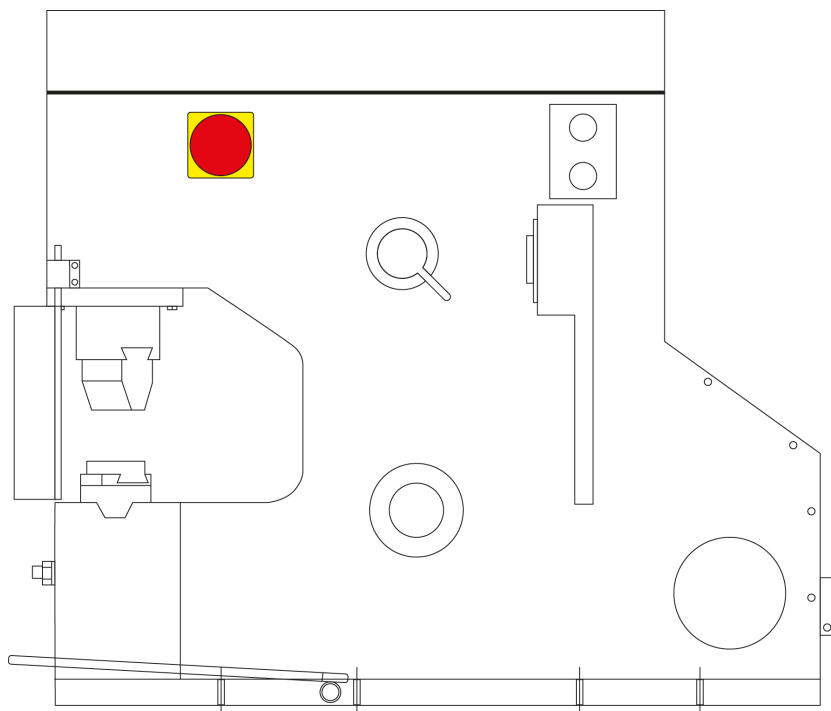


17. PART LIST



Nr.	DESCRIPTION	Nr.	DESCRIPTION
1	Die seat	32	Oil tap
2	Die key	33	Oil reservoir
3	Bottom die	34	Back cylinder
4	Top die	35	Back piston
5	Front piston	36	Back cylinder nech
6	Top die key	37	Back cylinder nech nut
7	Front cylinder neck	38	Crank arm
8	Assembly bolt	39	Crank cylinder housing
9	Front piston bronze key	40	Crank shaft
10	Front cylinder	41	Flywhell
11	Front piston metal ring	42	Motor belt
12	Cylinder cap assembly bolt	43	Motor
13	Cylinder cap	44	Exhaust
14	Ram adjusting ball	45	Anvil
15	Ram adjusting valve	46	Anvil not
16	Ram adjusting valve nut	47	Anvil spring
17	Spring	48	Anvil bolt
18	Pipe	49	Back cover bolt
19	Top valve	50	Electric box
20	Top valve housing	51	Spring washer
21	Bottom valve (A-B)	52	Top cover seal
22	Bottom valve housing (A-B)	53	O-Ring
23	Plastic hose	54	Seal
24	Air exhaust bolt	55	Back piston spring
25	Back cylinder cap	56	Oil Cap
26	Air intake adjustment valve	57	Oil gauge
27	Bolt	58	Belt tensioner
28	Air intake adjustment bolt	59	1306 ball bearing
29	Back piston metal ring	60	30210 conical bearing
30	Oil adjustment ball	61	30308 conical bearing
31	Spring	62	6004 ball bearing

18. EMERGENCY STOP

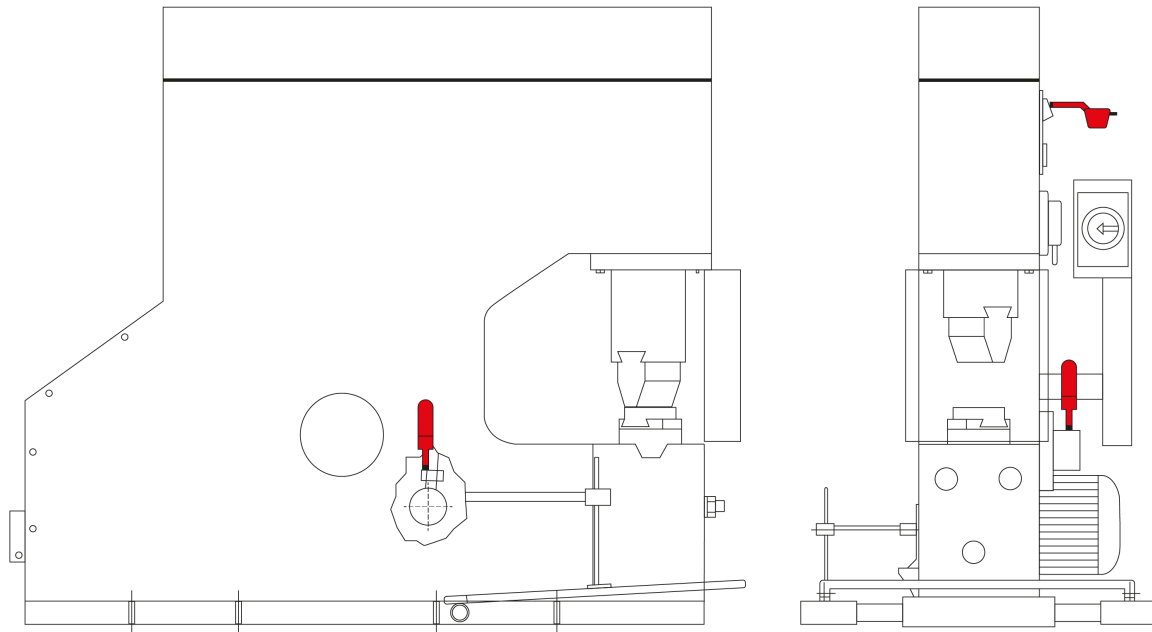


Push to stop

Pull to release

Pull the emergency stop button firmly to release

19. LUBRICATION SYSTEM



Explanation:



Oil Can (SAE 30)

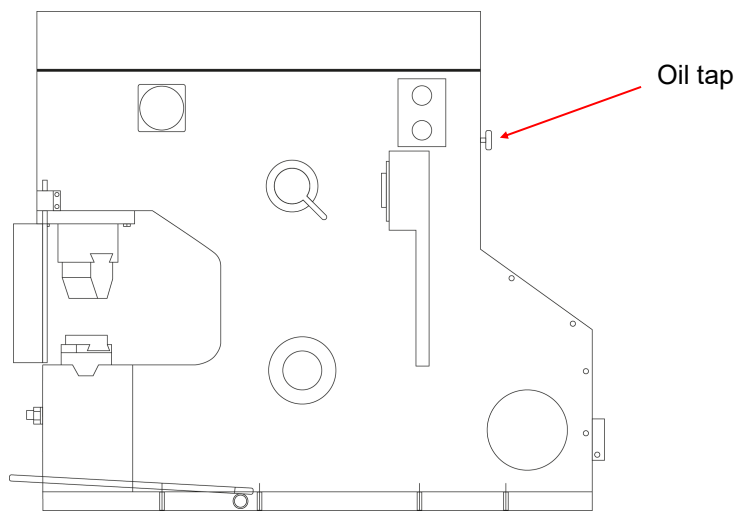


Greaser (Grease must be press at 200 working hours)

19.1. Lubrication

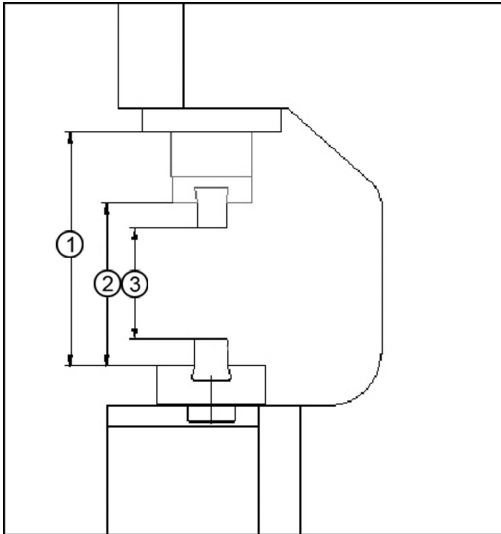
Open oil faucet (behind the machine) clockwise and oil the piston as shown in the picture.

Open oil faucet 5 minutes during working every 1 hour or open it low position (1/4 turn) and oil it all day.



20. THE WORKING LENGTH

The working length of HAMMER is shown in the figure



Dimension 1 400 mm

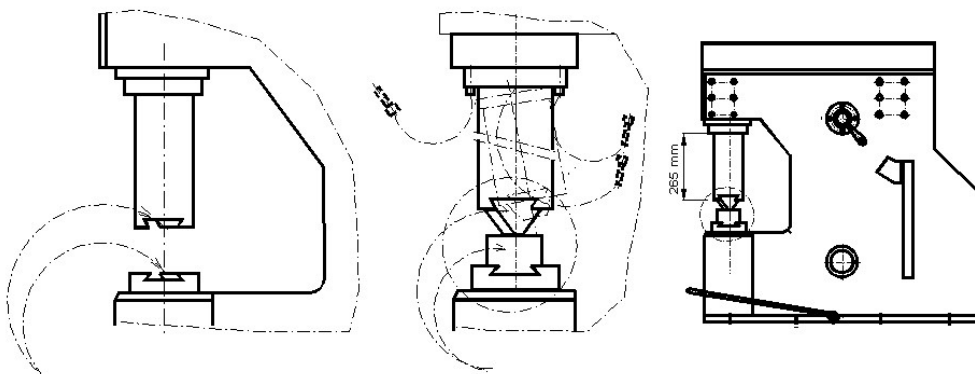
Dimension 2 340 mm

Dimension 3 225 mm

ATTENTION

The stroke of the machine is 230 mm. However, if the bottom cement which is under the anvil gets loose, the stroke will be longer.(more than normal length) it may cause damage on machine neck.

The anvil which is tightened by pins, can break the neck screws, if it gets loose and it that position the machine is worked. Both events will cause big damage on the machine, and these points must be checked before operating.



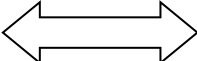
21. MAINTENANCE FOR RETURN FILTER



Picture 1 is view the filter in the machine



The filter tightens way of anti-clockwise or
dismantle way of clockwise

OPEN  CLOSE



To use air-pistol for cleaning the filter

Cleaning the return filters and write same explanations

To change the filter

1. Open the filter by turning it to clockwise
2. Clean the filter element with a air pistol
3. Close the cover by turning it to counter-clockwise

22. CHANGING OF THE HAMMERS

Powerhammer has two changeable hammer on it. If one or two hammers must be changed then firstly please tie the handle, which is on the up position, with a hard wood.

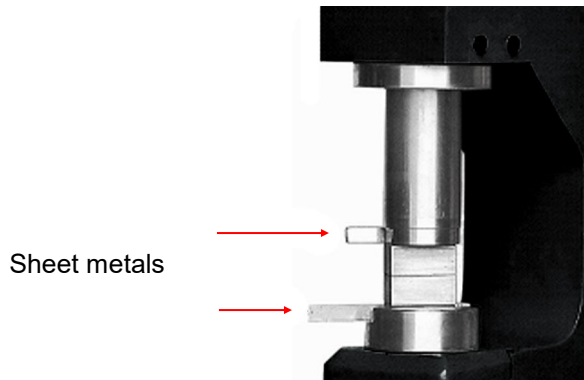
Please turn off the main switch. If needed to change both hammers.

Untie the iron key assembled on the hammer and let it be away.

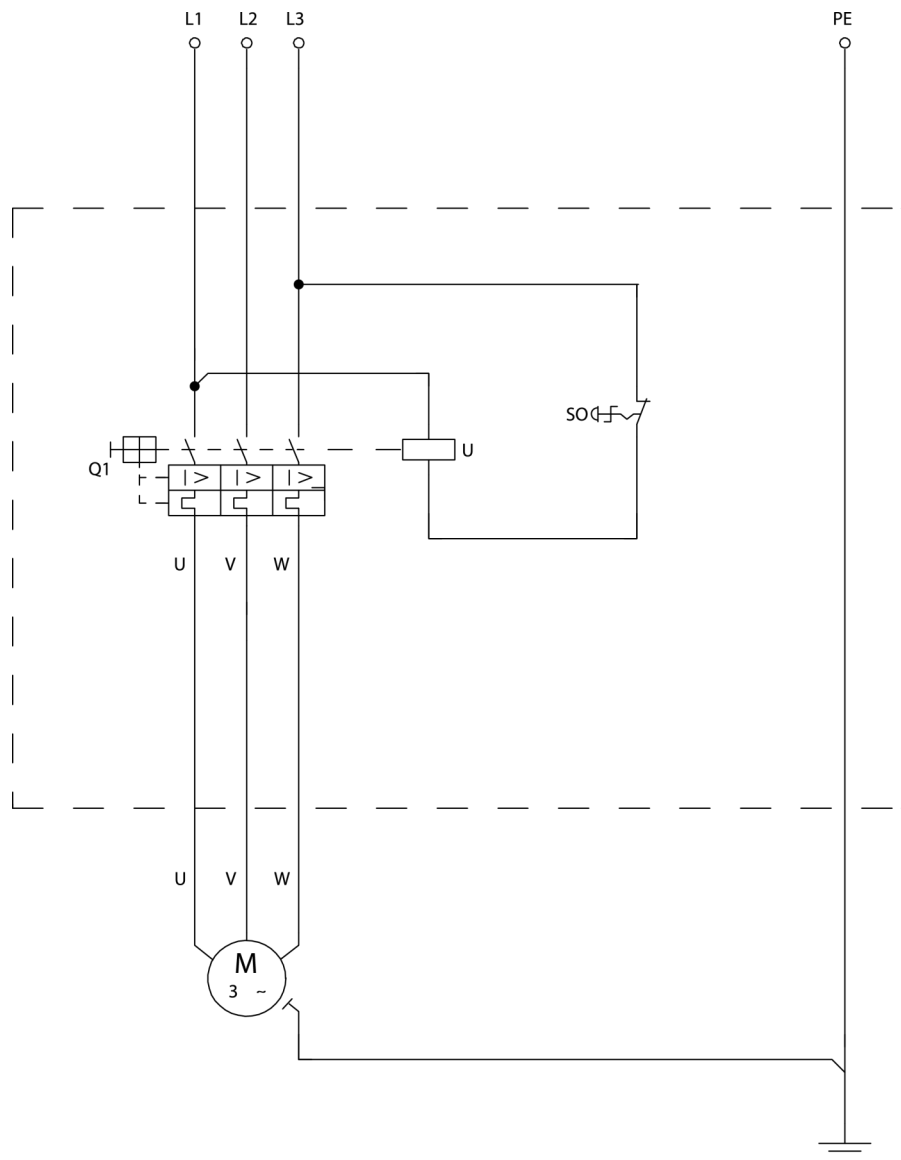
Please be careful when changing the up hammer. Than locate the other hammer there and tie with the key.

Both hammer must be parallel to each other. The key which will tie the upper hammer should always be assembled from front side. The key which will tie the bottom hammer should always be assembled from the back side.

To adjust the hammer's parallelism, sheet materials must be assembled shown on the picture to have the parallelism.



23. ELECTRICAL SCHEMAS



ELECTRICAL PARTS LIST (400V)

SO --- EMERGENCY STOP (FAK-R/V/KC01/IY MOELLER)

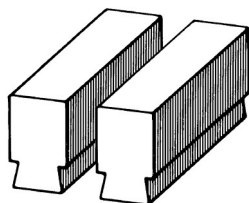
Q1 --- RELAY THERMAL OVERLOAD PROTECTION OF MOTOR L (10-16A) (PKZMO-16 MOELLER)

H1 --- LIGHT INDICATOR (230 400 V) (L-RT-PKZO MOELLER)

U --- TRIPS VOLTAGE (230 400 V) (E-PKZO MOELLER-GR)

24. TOOLING

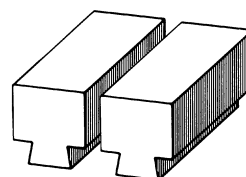
Reference 140-14-01-00001 *Standard*



Dimensions

120x60 mm

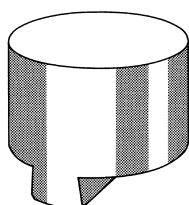
Reference 140-14-01-00002



Dimensions

160x80 mm

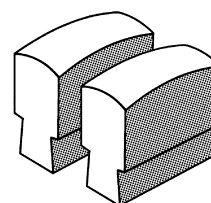
Reference 140-14-01-00003



Dimensions

Ø 200 mm

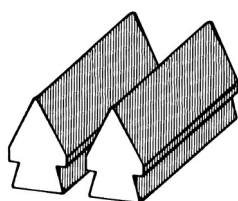
Reference 140-14-01-00004



Dimensions

100x60 mm

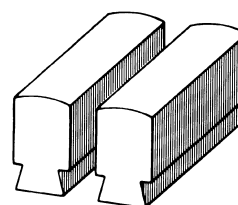
Reference 140-14-01-00005



Dimensions

120x60 mm

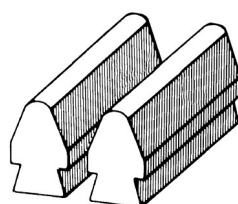
Reference 140-14-01-00006



Dimensions

120x60 mm

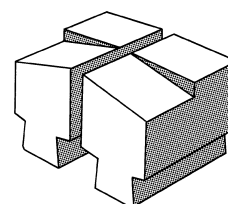
Reference 140-14-01-00007



Dimensions

120x60 mm

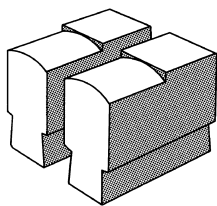
Reference 140-14-01-00008



Dimensions

130x100 mm

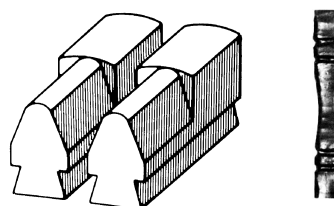
Reference 140-14-01-00009



Dimensions

120x60 mm

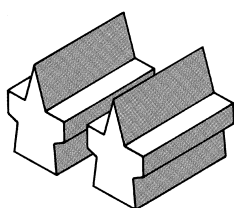
Reference 140-14-01-00010



Dimensions

120x60 mm

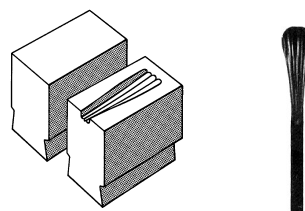
Reference 140-14-01-00011



Dimensions

L110 mm

Reference 140-14-01-00012



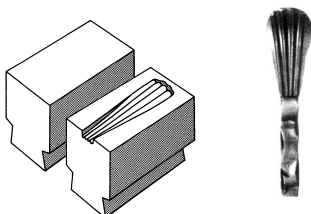
Dimensions

100x60 mm

Capacity

12x6 mm

Reference 140-14-01-00013



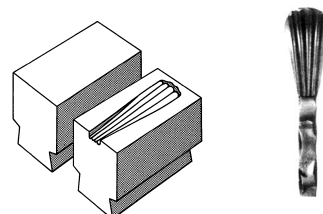
Dimensions

120x60 mm

Capacity

12 / Ø12 mm

Reference 140-14-01-00014



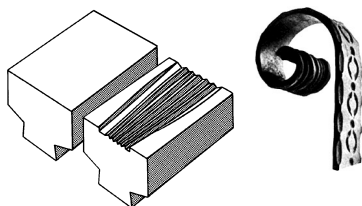
Dimensions

120x80 mm

Capacity

20x6 / 25x8 mm

Reference 140-14-01-00015



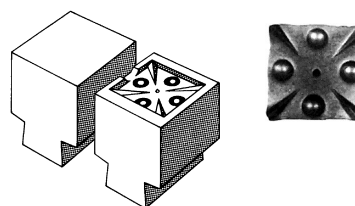
Dimensions

130x80 mm

Capacity

40x8 / 40x6 mm

Reference 140-14-01-00016



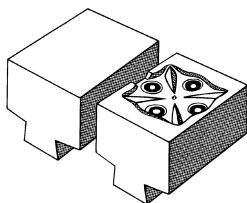
Dimensions

80x80 mm

Capacity

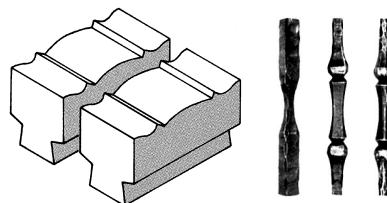
60x60 mm

Reference 140-14-01-00017



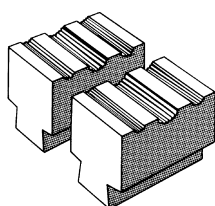
Dimensions	Capacity
100x100 mm	80x80 mm

Reference 140-14-01-00018



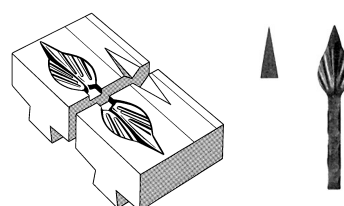
Dimensions	Capacity
160x80 mm	

Reference 140-14-01-00019



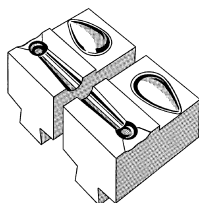
Dimensions	Capacity
130x80 mm	

Reference 140-14-01-00020



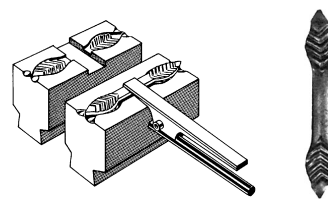
Dimensions	Capacity
120x100 mm	12x12 mm

Reference 140-14-01-00021



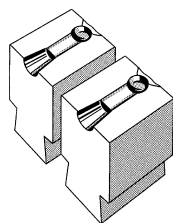
Dimensions	Capacity
120x70 mm	Ø14 mm

Reference 140-14-01-00022



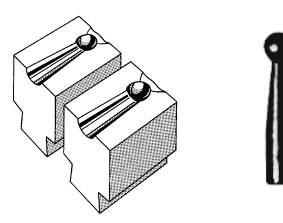
Dimensions	Capacity
135x60 mm	

Reference 140-14-01-00023



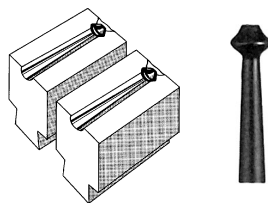
Dimensions	Capacity
70x60 mm	Ø16 mm

Reference 140-14-01-00024



Dimensions	Capacity
70x60 mm	Ø16 mm / Ø16 mm

Reference 140-14-01-00025



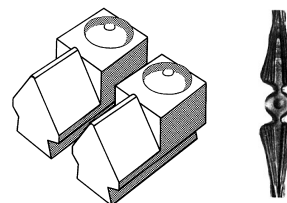
Dimensions

70x60 mm

Capacity

12 mm / Ø12 mm

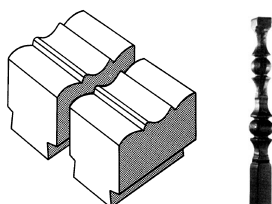
Reference 140-14-01-00026



Dimensions

120x60 mm

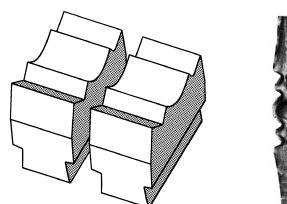
Reference 140-14-01-00027



Dimensions

100x60 mm

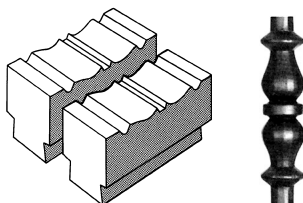
Reference 140-14-01-00028



Dimensions

130x60 mm

Reference 140-14-01-00029



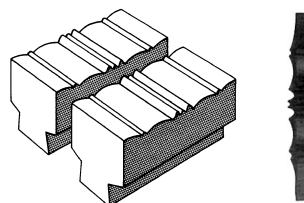
Dimensions

160x80 mm

Capacity

Ø40 mm

Reference 140-14-01-00030



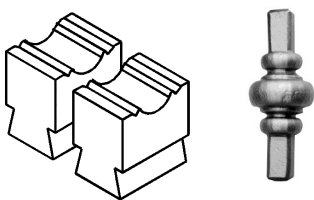
Dimensions

160x80 mm

Capacity

30 mm

Reference 140-14-01-00031



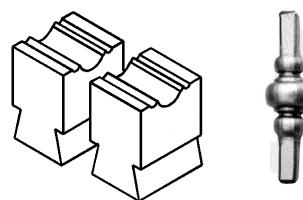
Dimensions

100x60 mm

Capacity

Ø40 mm

Reference 140-14-01-00032



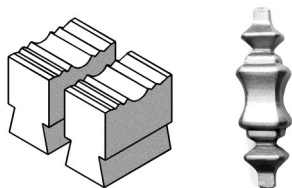
Dimensions

100x60 mm

Capacity

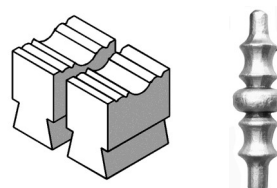
Ø30 mm

Reference 140-14-01-00033



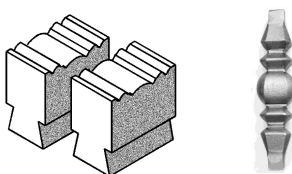
Dimensions	Capacity
160x80 mm	Ø 40 mm

Reference 140-14-01-00034



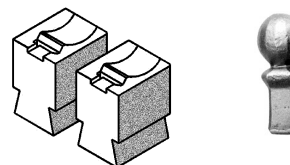
Dimensions	Capacity
150x60 mm	Ø40 mm

Reference 140-14-01-00035



Dimensions	Capacity
180x80 mm	Ø 30 mm

Reference 140-14-01-00036



Dimensions	Capacity
100x60 mm	Ø 40 mm

Reference 140-14-01-00037



Dimensions
120x60 mm

OUR RANGE OF MACHINERY



IRON WORKERS



SECTION BENDING
MACHINES



NON-MANDREL
PIPE BENDER



HORIZONTAL PRESS
BRAKE



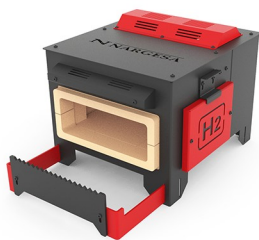
TWISTING/SCROLL
BENDING MACHINES



HYDRAULIC PRESS
BRAKES



HYDRAULIC SHEAR
MACHINES



GAS FORGES



IRON EMBOSSING
MACHINES



END WROUGHT IRON
MACHINES



BROACHING
MACHINES



POWER HAMMERS



PRESSES FOR LOCKS