

# **INSTRUCTIONS BOOK**

# **POWER HAMMER**

**PH50** 

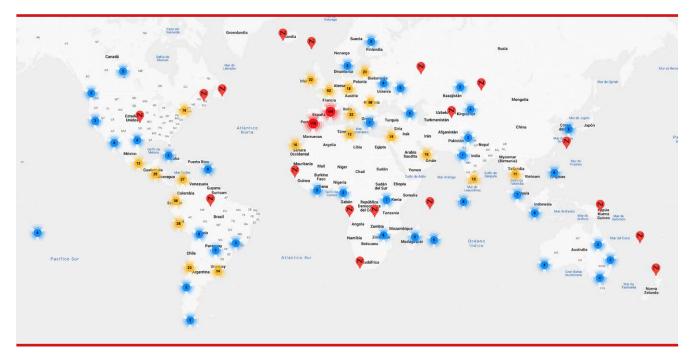
NS: 2024-500





# **NARGESA CLIENTS**

Prada Nargesa has more tan 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 posible 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 área to be able to satisfy their production requirements by hiring their services.



We have more than 8.500 customers in 150 different countries around the world

Discover its location on the interactive map on our website!

## 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 comercial network!

- 1. Company name
- 2. CIF/Tax Code
- 3. City
- 4. Country
- 5. Machine or machines

## PRADA NARGESA

Prada Nargesa S.L. is a family business fonuded in 1970 located near Barcelona, Spain, with more tan 50 years of experience in the sector of manufacturing of industrial machinery, and more tan 10.000m<sup>2</sup> 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 tan 16.800 machines sold all over the world.



## **OUR RANGE OF MACHINERY**

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 aduit of efficiency in product and service
- $\cdot$  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:



Discover its location on the interactive map on our website!

## 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

# **CONTENTS**

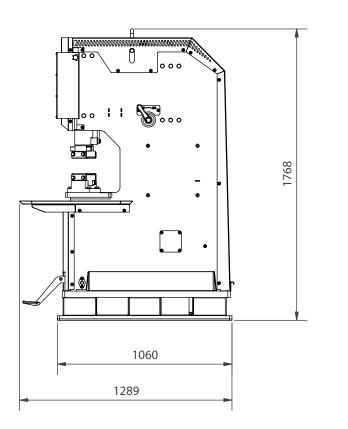
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**TECHNICAL ANNEXES** 

## 1. MACHINE FEATURES

Make	Nargesa
Туре	Power hammer
Model	PH50

## 1.1 General Dimensions



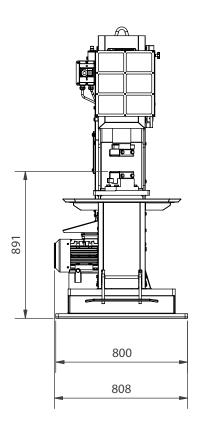


Figure 1. Outside dimensions of the PH50 Power Hammer

## 1.2 Machine Description

The PH50 Power Hammer is specially designed for hot material forming. The versatility is even greater with the possibility of using various molds, tools and accessories. Following the manufacturer's instructions when using the machine and all accessories is fundamental.

The PH50 Power Hammer is adapted to European machinery manufacturing standards and directives.

PRADA NARGESA S.L. is not liable for any damages that may be caused due to improper use or a breach of the safety rules by users.



## 1.3 Identifying the Machine Parts

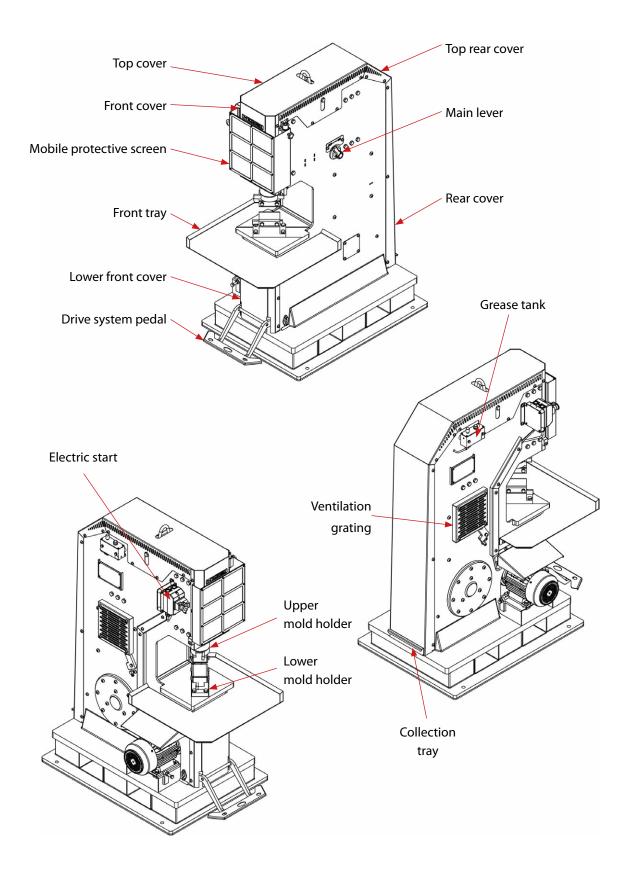


Figure 2. Machine nomenclature and components

#### 1.4. General Characteristics

Motor power	2.2 kW / 3 HP at 1460 rpm
Voltage	230/400 V three-phase 230 V single-phase
Intensity	9/5 A
Structure material	Sheet metal
Total weight	980 kg

## 1.5. Description of the Guards

All the moving components on the PH50 Power Hammer are found inside the machine (except the hammer piston rod). These components are protected from impurities and any involuntary handling, as well as entrapment with different side, front and back covers.

All of these protectors are designed for easy removal in order to do all installation and maintenance work required with comfortable access.

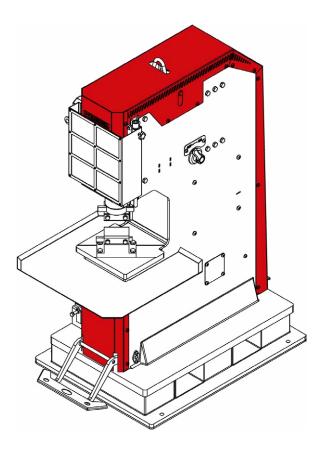


Figure 3. Power Hammer protective guards

Working without the protectors on is ABSOLUTELY PROHIBITED.

They may only be removed for maintenance or to repair a breakdown, as necessary, and always when the machine is completely off.



## 2. MOVEMENT AND STORAGE

#### 2.1 Movement

Movement without hoisting shall be done using a pallet jack or forklift. If hoisting is necessary, it shall be done using a crane connected to the anchoring point marked for such purpose. To prevent overtipping, it should never be hoisted more than 300 mm.

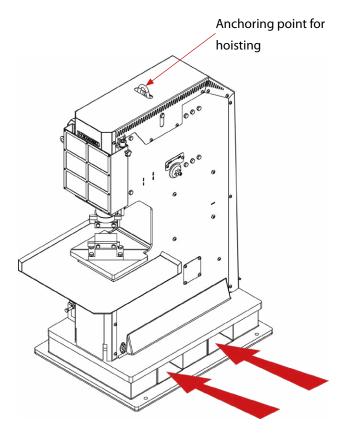


Figure 4. Moving the machine

## 2.2. Storage Conditions

The may not be stored anywhere that does not meet the following requirements:

\*Moisture between 30 and 95% without water condensation.

\*A temperature of -25°C to 55°C or 75°C over periods not to exceed 24 hours (please remember these temperatures are for storage conditions).

\*Do not pile machines or place any heavy objects on top.

\*Do not dismantle for storage.

## 3. MAINTENANCE

## 3.1. Transmission Belt Maintenance

Check transmission belt tension every 500 hours of operation.

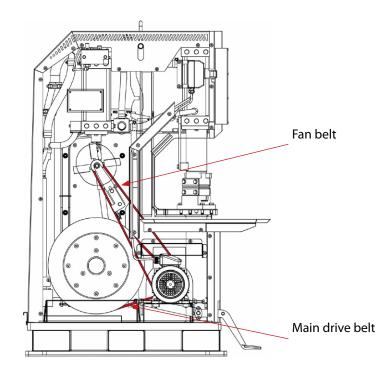
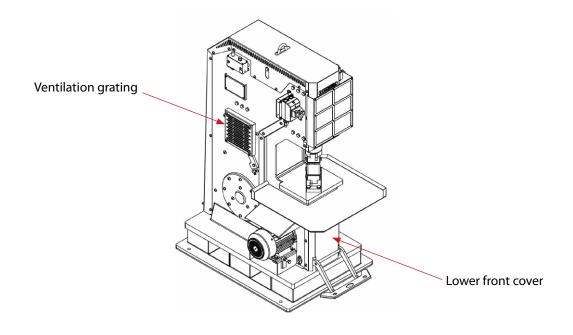


Figure 5. Transmission belts

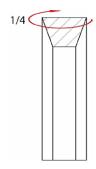
To check the transmission belt tension, proceed as follows:

- 1. Stop the PH50 and tighten the emergency stop. (Disconnect the machine from the power source if possible)
- 2. Take the lower front cover and the ventilation grating off.





3. To check whether the belt is well-tensed, you must be able to turn the belt  $\frac{1}{4}$  of a turn on the profile.



4. To check the fan belt tension, access the ventilation grating through the hole. For the engine belt, access through the front of the machine.

If you notice any belt is not tensed well, proceed as indicated in the following sections.

#### 3.1.1. Fan Belt

- 1. Loosen screws 1 and nut 2.
- 2. Tighten or loosen (if you want to tense or loosen) the belt as desired using screw 3.
- 3. Once tensed appropriately, tighten screws 1 and nut 2.
- 4. Place the side grating on and the process is finished.

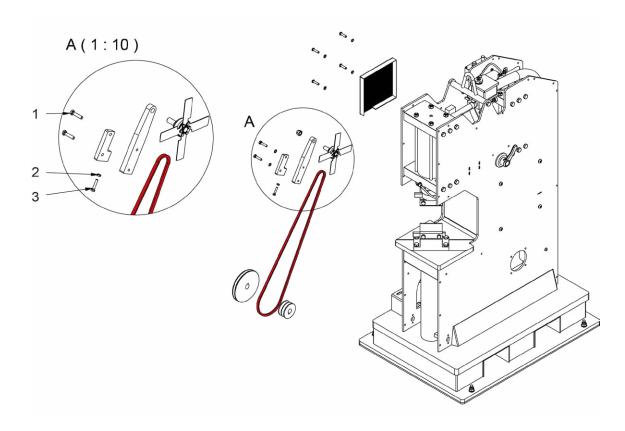


Figure 6. Fan belt

## 3.1.2. Main Drive Belt

- 1. Loosen the fan belt by following the instructions from the previous section.
- 2. Loosen screws 4 and nut 5.
- 3. Tighten or loosen (if you want to tense or loosen) the belt as desired using screw 6.
- 4. Once the belt is tensed appropriately, tighten screws 4 and nut 5.
- 5. Tighten the fan belt again as explained in the previous section.
- 6. Place the lower front cover on and the process is finished.

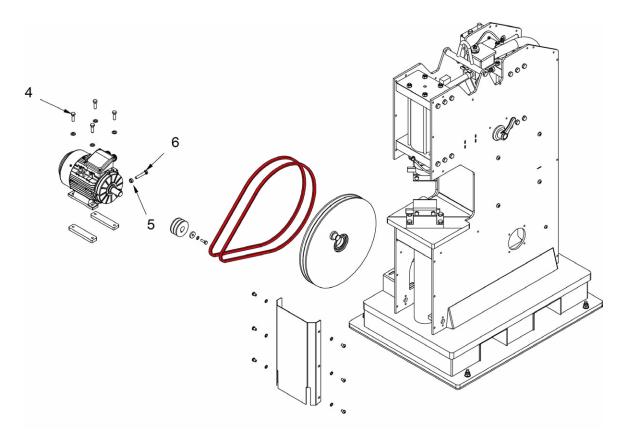


Figure 7. Main drive belts



## 3.2. Emptying the Collector Tray

You must periodically check the oil collector tray and empty it if full.

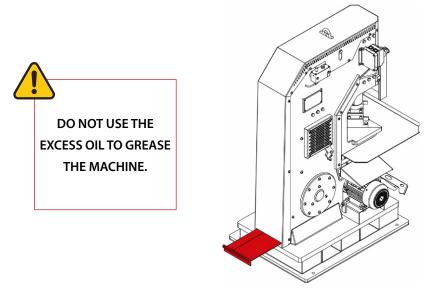


Figure 8. Oil collector tray



Take the excess oil to the corresponding collection point for proper recycling.

## 3.3. Greasing the Machine

Check the oil level in the grease tank each time you start the Power Hammer.

The type of oil to be used to grease the Power Hammer is grade SAE 20 or similar for pneumatic systems. Fill to the horizontal hole, as indicated in the following image.

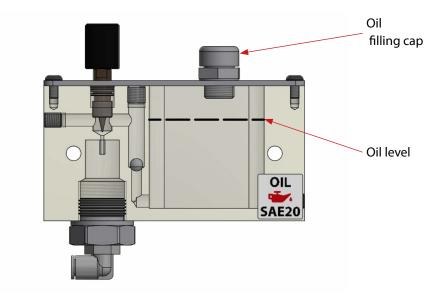


Figure 9. Oil level

Always graduate the oil flow rate with the Power Hammer on and using the pedal.

The greasing regularity is counted by drops per second.

The grease flow rate for the Power Hammer should be graduated during the hammering process at a greasing frequency of 1 drop every 2-3 seconds.

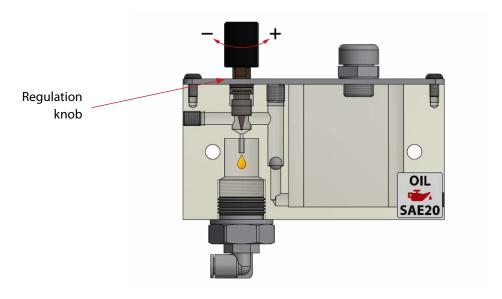


Figure 10. Oil flow graduation



#### 4. INSTALLATION AND START UP



NOTE: DO NOT USE THE PH50 POWER HAMMER WITHOUT IT BEING DULY SECURED TO THE GROUND

## 4.1. Situating and Securing the Machine

Installing the Nargesa PH50 Power Hammer does not require any civil engineering or any external professional. You just need to follow these instructions carefully.

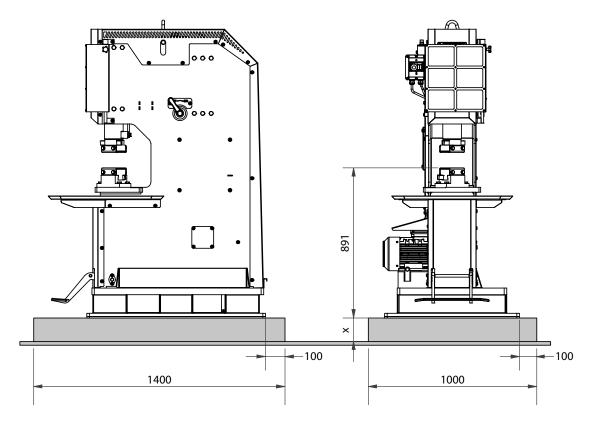
Before proceeding, make sure you have the necessary material:

- A hammer drill.
- A screwdriver compatible with a Ø16 mm bit or a screwdriver with a 12 mm hex wrench.
- A Ø18 mm masonry bit that is at least 185 mm long.
- A cleaning system (compressed air, aspirator...) for the inside of the hole.
- A silicone applicator or gun.
- A tool to screw a 24 mm hex nut.

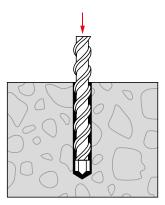
Install the PH50 Power Hammer directly on the ground of the plant or workshop. The floor must be cement or similar, smooth, levelled and with a minimum thickness of 150 mm. If you do not have this base thickness, you must make a 150 mm deep hole in the ground at least and fill it with cement or concrete.

**NOTE:** If you want a higher work area, you will need concrete formwork. The dimensions must be at least 1000 mm wide by 1400 mm long, as indicated in the following image.

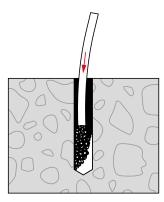
To determine the height of the formwork, you must consider the 891 mm between the base of the machine and the mold. Use this formwork so the total height is comfortable to work with.



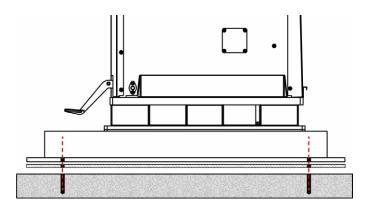
- 1. Place the lower rubber seal (REF: 120-14-04-00127) in the area chosen for the location of the Power Hammer in order to use it as a template to drill the 4 holes for the fixing bolts. Mark the exact position of the 4 holes on the ground.
- 2. Remove the rubber seal and make the 4 holes marked using a hammer drill and the Ø18 mm bit. The depth of the hole shall be approximately 125 mm and a maximum of 130 mm.



3. Clean the 4 holes using the system available to you in order to remove all drilling residue.



4. Using a pallet truck, forklift or crane, place the Power Hammer in position, matching the 4 holes in the base of the machine with the 4 holes in the floor. Once these holes are aligned, and before putting the Power Hammer on the floor, place the rubber aligning its 4 holes with those in the floor.





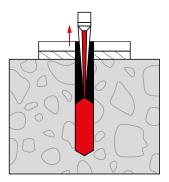
5. Screw the washer and nut supplied onto each of the 4 bolts, as shown in the following illustration.



6. Prepare the bottle of chemical paste supplied with the machine in the silicone applicator or gun.

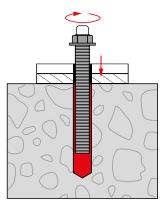


- 7. Discard the first 50 mm of this blend.
- 8. Then fill one of the 4 holes with the chemical paste from the bottom to the top.

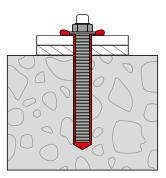


- 9. Then, insert the fixing bolt using one of the following two systems:
  - a. With the bolt supplied with the rods and a screwdriver compatible with a 16 mm bit.
  - b. With a screwdriver and a 12 mm hex wrench.

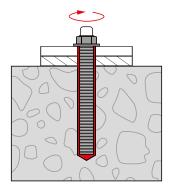
Adjust the screwdriver rotating to the right slowly. Insert the bolt into the hole all the way down.



10. Then clean off any excess material.



- 11. Repeat steps 8, 9 and 10 for the remaining holes. Wait 120 minutes for the Chemical Paste to harden.
- 12. Fasten the 4 nuts tightly to ensure a good hold.



13. After 4 or 5 hours of operation, screw the 4 nuts back on.

#### 4.2. Dimensions and Work Area

Take the dimensions, operator work area and the lengths of any pieces to be worked as well as the rear clearance area required to remove the collector tray into consideration when positioning the machine.

The Power Hammer may only be used by a single operator who can stand in front of the machine or on the side as long as they have a full view of the work area.

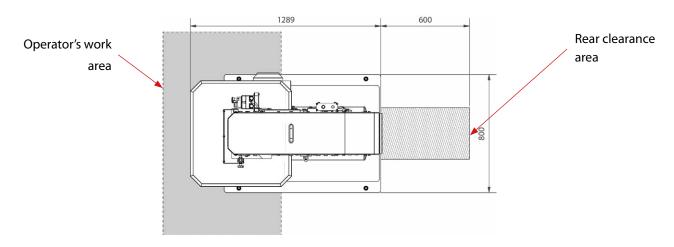


Figure 11. Machine location



## 4.3. Acceptable External Conditions

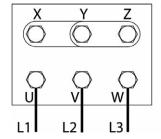
- A room temperature of between +5°C and +40°C without exceeding an average temperature of +35°C over 24 hours.
- Moisture between 30 and 90% without water condensation.

#### 4.4. Connection to a Power Source

#### **IMPORTANT**

This machine must be connected to a grounded socket.

The PH50 Power Hammer is equipped with a three-phase 230 V/400 V 2.2 kW wye-wired motor to be connected to a 400 V power source. It must be connected to a single power source and to the socket type indicated. The motor coil connection shall be changed as indicated in the following figure if the voltage is not as indicated:



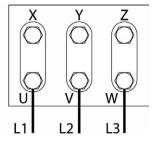


Figure 9. Wye configuration for 400 V voltage (pre-set) Figure 10. Delta configuration for 230 V voltage

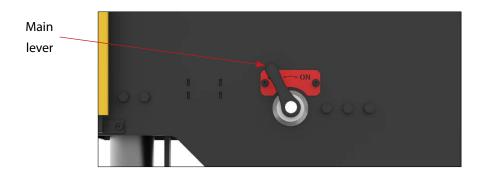
## 5. OPERATION MANUAL

#### 5.1 Introduction

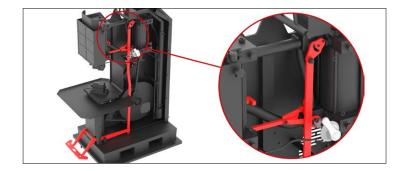
This manual was designed to help those using the PH50 Power Hammer as it has important information on the use and unique characteristics of this machine. For this reason, following all the items detailed in this manual step-by-step is recommended in order to understand how the machine operates properly.

## 5.2. Securing the Molds under the Hammer

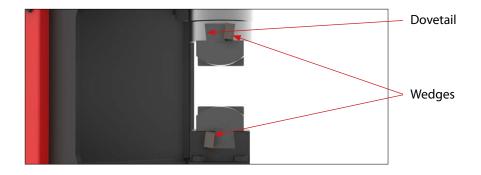
Turning the main lever OFF is **ESSENTIAL** in order to properly position the molds on the machine.



Activate the mechanical lock on the piston rod so it is fixed and you can safely work with the molds. Activate the mechanical lock on the pedal as well.

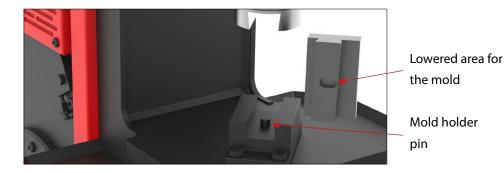


Securing the molds on the PH50 Power Hammer is done using a dovetail and lateral wedges.



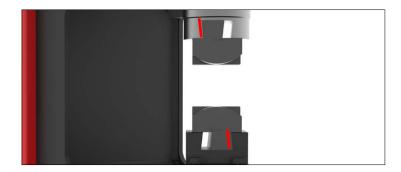


To help with assembly and align the molds faster and more easily, there is a lowered area on the bottom part which is inserted into the upper and lower mold holder pins for easier assembly.



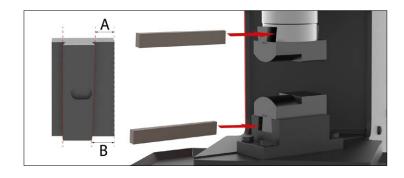
To switch molds, stop the Power Hammer.

We'll place the dies on the lower and upper die holder, fastening the narrower part of the dovetail against the lateral side on the hosting.



Once the mold is in the mold holder, insert the wedge along the side so the conical part of the wedge is always tight against the mold along the narrowest side.

We'll insert the shims by the front or rear ride of the hosting according to how the die has been set in the die holder, we'll keep in mind that we'll put the shim in from the wider side of the die (B), towards the narrower side (A).





## WARNING

NEVER START ANY HAMMER WORK WITHOUT ASSEMBLING THE MOLDS.
IF YOU DO NOT PAY ATTENTION TO THIS WARNING, IRREPARABLE DAMAGE TO THE PH50
POWER HAMMER MAY OCCUR

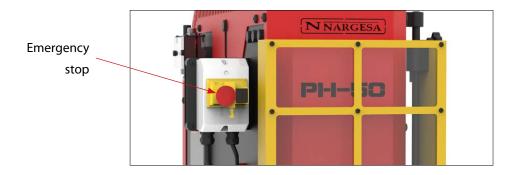
## 5.3. Machine Power Supply

To start the machine, follow this procedure:

1. Put the main lever on OFF. If you can't do this, make sure nothing is pressing on the drive system pedal.



2. Disable the electric start emergency stop.

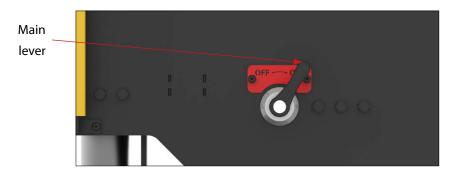


3. Press the electric start on button.



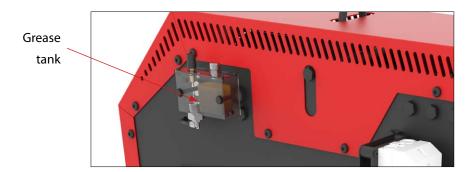


#### 4. Put the main lever on ON.



After following the previous steps, the PH50 Power Hammer is now ready to begin operating.

**NOTE:** As explained in section 3, you must check the oil level in the grease tank before starting the operating cycle.



5. To start the hammering process, press the drive system pedal down and control it with your foot.

## 5.4. Stopping the Machine

Once you have finished the work you want to do with the PH50 Power Hammer, stop it as indicated below:

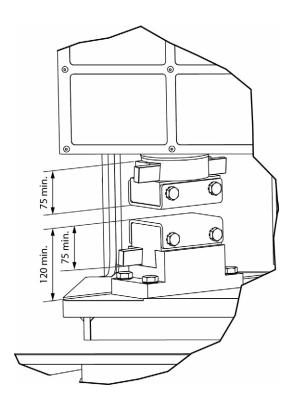
- 1. Release the drive system pedal in order to stop the hammer movement.
- 2. Put the main lever on OFF.
- 3. Tighten the emergency stop.

#### 5.5. Custom Molds

The PH50 Power Hammer is supplied with standard molds and two sets of end plates. These end plates allow you to weld as desired to do forging work taking advantage of the standard molds on the Power Hammer. These end plates are secured to the molds with side screws.



If the customer wishes to manufacture their own molds, the upper and lower ones must have a minimum height of 75 mm or 3 inches. If you activate the drive system pedal without the molds on, the piston rod on the PH50 may be damaged.





## WARNING

NEVER START ANY HAMMER WORK WITHOUT ASSEMBLING THE MOLDS OR WITHOUT THE MINIMUM DIMENSIONS INDICATED.

IF YOU DO NOT PAY ATTENTION TO THIS WARNING, IRREPARABLE DAMAGE TO THE PH50 POWER HAMMER MAY OCCUR



## 6. WARNINGS

- Do not handle any component when the machine is on.
- Do not use the machine for any purposes not described in the manual.
- Be careful with the material as it is hot.
- Use gloves to work with components and during all work operations.
- Use goggles and safety boots approved by EC certification.
- Secure the material on the ends.
- Do not work without the protective mechanisms installed on the machine.
- Keep a safe distance between your body and the machine.
- Do not use punches or tools not supplied by Nargesa or an authorized distributor.
- The tools that can be coupled to the machine must always be fixed to the base and rotor.
- NARGESA S.L. will not be held liable for any accident due to operator negligence, and not following the instructions for use and safety indicated in the manual.



#### 7. ACCESSORIES

All Nargesa Power Hammers are equipped with the standard flat mold and two sets of support braces.

## Standard flat mold for Power Hammer PH50



#### REF: 140-14-04-00001

- > All our Power-hammers are equipped with an upper standard flat tooling and lower one.
- > This tooling is the most versatile one and it's bond to the operatives skilfulness.
- > Molds manufactured and tempered in 1.2344 steel / AFNOR: Z40CDV5 / DIN: X40CrMoV5-1 / UNE: F5318 / AISI: SAE H13 / SKD61 / 45Cr5MoSiV1 to withstand major impacts and high temperatures.

#### Standard tool

No of pieces: 2

Dimensions: 120x78mm

## **Support braces/ adaptors for Power Hammer PH50**



#### REF: 140-14-04-00002

- > We supply two sets of Support braces along with the power hammer PH50. These adaptors enable us to weld or fasten with bolts to them several kinds of elements, such as round and square solid bars, flat bars, rods etc... in order to manufacture our own tools.
- > Tools made of Steel F111.



#### Standard tool

No of pieces: 4

Dimensions: 120x89mm





#### REF: 140-14-01-00004

> Molds manufactured and tempered in 1.2344 steel / AFNOR: Z40CDV5 / DIN: X40CrMoV5-1 / UNE: F5318 / AISI: SAE H13 / SKD61 / 45Cr5MoSiV1 to withstand major impacts and high temperatures.

No of pieces: 2

Dimensions: 100x60mm

**Optional** tool

#### **Tool for Power Hammer 06**



#### REF: 140-14-01-00006

> Molds manufactured and tempered in 1.2344 steel / AFNOR: Z40CDV5 / DIN: X40CrMoV5-1 / UNE: F5318 / AISI: SAE H13 / SKD61 / 45Cr5MoSiV1 to withstand major impacts and high temperatures.

No of pieces: 2

Dimensions: 120x60mm

**Optional** tool

## **Tool for Power Hammer 07**



#### REF: 140-14-01-00007

> Molds manufactured and tempered in 1.2344 steel / AFNOR: Z40CDV5 / DIN: X40CrMoV5-1 / UNE: F5318 / AISI: SAE H13 / SKD61 / 45Cr5MoSiV1 to withstand major impacts and high temperatures.

No of pieces: 2

Dimensions: 120x60mm

**Optional** tool

#### **Tool for Power Hammer 08**



## REF: 140-14-01-00008

> Molds manufactured and tempered in 1.2344 steel / AFNOR: Z40CDV5 / DIN: X40CrMoV5-1 / UNE: F5318 / AISI: SAE H13 / SKD61 / 45Cr5MoSiV1 to withstand major impacts and high temperatures.

No of pieces: 2

**Dimensions:** 130x100mm



#### REF: 140-14-01-00009

> Molds manufactured and tempered in 1.2344 steel / AFNOR: Z40CDV5 / DIN: X40CrMoV5-1 / UNE: F5318 / AISI: SAE H13 / SKD61 / 45Cr5MoSiV1 to withstand major impacts and high temperatures.

No of pieces: 2

Dimensions: 120x60mm

**Optional** tool

#### **Tool for Power Hammer 10**



#### REF: 140-14-01-00010

> Molds manufactured and tempered in 1.2344 steel / AFNOR: Z40CDV5 / DIN: X40CrMoV5-1 / UNE: F5318 / AISI: SAE H13 / SKD61 / 45Cr5MoSiV1 to withstand major impacts and high temperatures.

No of pieces: 2

Dimensions: 120x60mm

**Optional** tool

## **Tool for Power Hammer 13**



#### REF: 140-14-01-00013

> Molds manufactured and tempered in 1.2344 steel / AFNOR: Z40CDV5 / DIN: X40CrMoV5-1 / UNE: F5318 / AISI: SAE H13 / SKD61 / 45Cr5MoSiV1 to withstand major impacts and high temperatures.

No of pieces: 2

**Dimensions:** 120x60mm **Capacity:** Ø 12mm Ø 12mm

**Optional** tool

#### **Tool for Power Hammer 18**



#### REF: 140-14-01-00018

> Molds manufactured and tempered in 1.2344 steel / AFNOR: Z40CDV5 / DIN: X40CrMoV5-1 / UNE: F5318 / AISI: SAE H13 / SKD61 / 45Cr5MoSiV1 to withstand major impacts and high temperatures.

No of pieces: 2

Dimensions: 160x80mm







#### REF: 140-14-01-00019

> Molds manufactured and tempered in 1.2344 steel / AFNOR: Z40CDV5 / DIN: X40CrMoV5-1 / UNE: F5318 / AISI: SAE H13 / SKD61 / 45Cr5MoSiV1 to withstand major impacts and high temperatures.

No of pieces: 2

Dimensions: 130x80mm

Optional tool

## **Tool for Power Hammer 20**



#### REF: 140-14-01-00020

> Molds manufactured and tempered in 1.2344 steel / AFNOR: Z40CDV5 / DIN: X40CrMoV5-1 / UNE: F5318 / AISI: SAE H13 / SKD61 / 45Cr5MoSiV1 to withstand major impacts and high temperatures.

No of pieces: 2

**Dimensions:** 120x100mm **Capacity:** 12x12mm **Optional tool** 

## **Tool for Power Hammer 21**



## REF: 140-14-01-00021

> Molds manufactured and tempered in 1.2344 steel / AFNOR: Z40CDV5 / DIN: X40CrMoV5-1 / UNE: F5318 / AISI: SAE H13 / SKD61 / 45Cr5MoSiV1 to withstand major impacts and high temperatures.

No of pieces: 2

Dimensions: 120x70mm Capacity: Ø 14mm Optional tool

## **Tool for Power Hammer 22**



## REF: 140-14-01-00022

> Molds manufactured and tempered in 1.2344 steel / AFNOR: Z40CDV5 / DIN: X40CrMoV5-1 / UNE: F5318 / AISI: SAE H13 / SKD61 / 45Cr5MoSiV1 to withstand major impacts and high temperatures.

No of pieces: 2

Dimensions: 135x60mm









#### REF: 140-14-01-00023

> Molds manufactured and tempered in 1.2344 steel / AFNOR: Z40CDV5 / DIN: X40CrMoV5-1 / UNE: F5318 / AISI: SAE H13 / SKD61 / 45Cr5MoSiV1 to withstand major impacts and high temperatures.

No of pieces: 2

**Dimensions:** 70x60mm **Capacityd:** Ø 16mm **Optional tool** 

## **Tool for Power Hammer 24**



#### REF: 140-14-01-00024

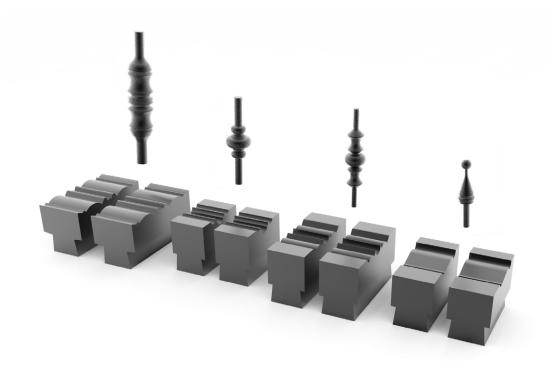
> Molds manufactured and tempered in 1.2344 steel / AFNOR: Z40CDV5 / DIN: X40CrMoV5-1 / UNE: F5318 / AISI: SAE H13 / SKD61 / 45Cr5MoSiV1 to withstand major impacts and high temperatures.

No of pieces: 2



# Special dies

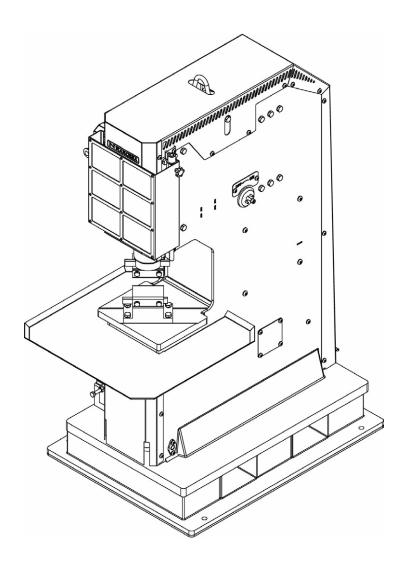
- > Special customized tools
- > Molds manufactured and tempered in 1.2344 steel / AFNOR: Z40CDV5 / DIN: X40CrMoV5-1 / UNE: F5318 / AISI: SAE H13 / SKD61 / 45Cr5MoSiV1 to withstand major impacts and high temperatures.





# **TECHNICAL ANNEX**

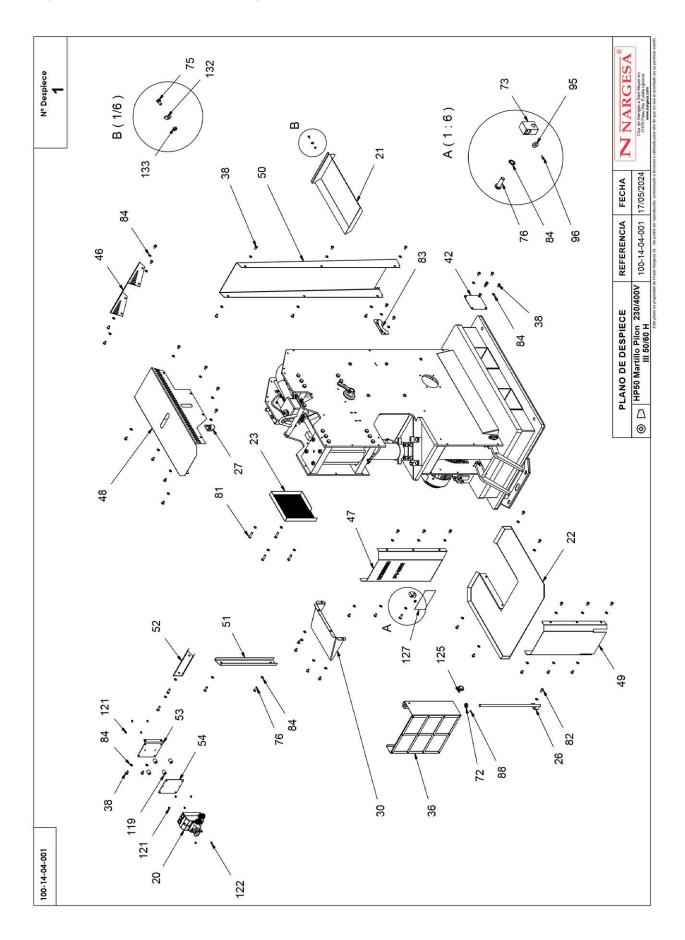
# **PH50 Power Hammer**



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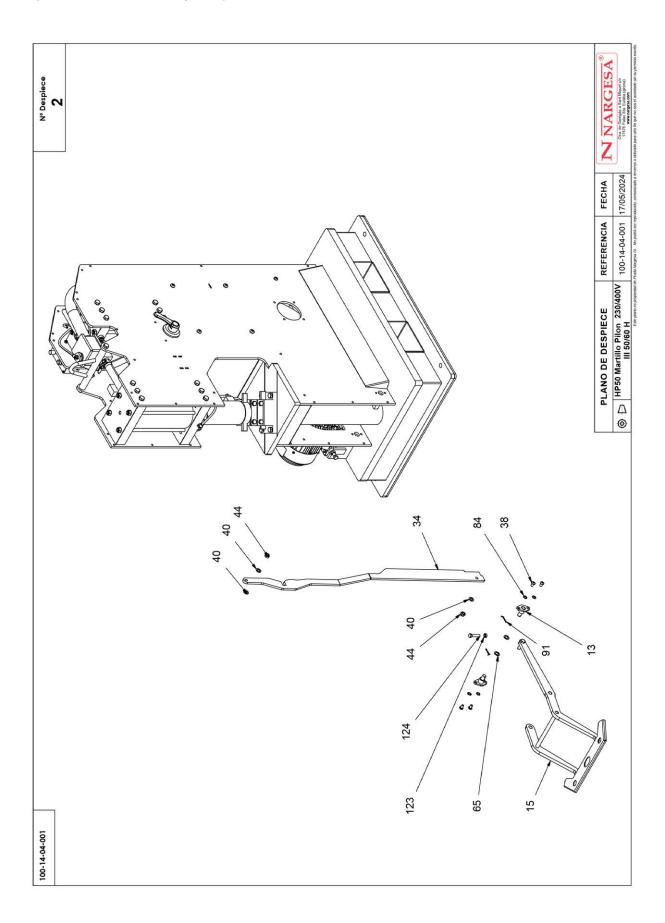
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## A1. Exploded view of the covers and outer protective elements

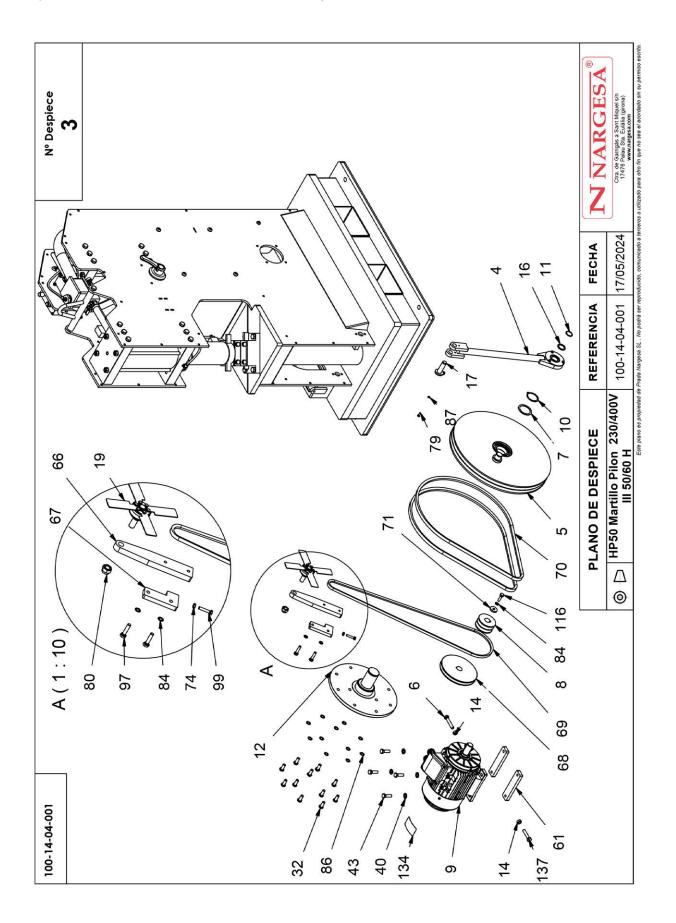




## A2. Exploded view of the drive system pedal

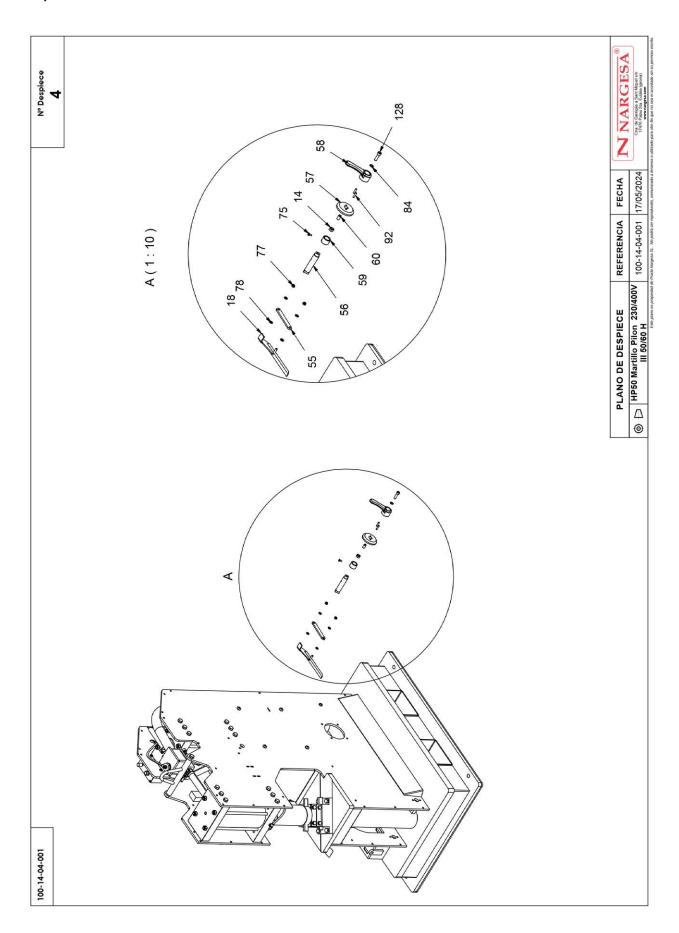


### A3. Exploded view of the transmission and ventilation systems

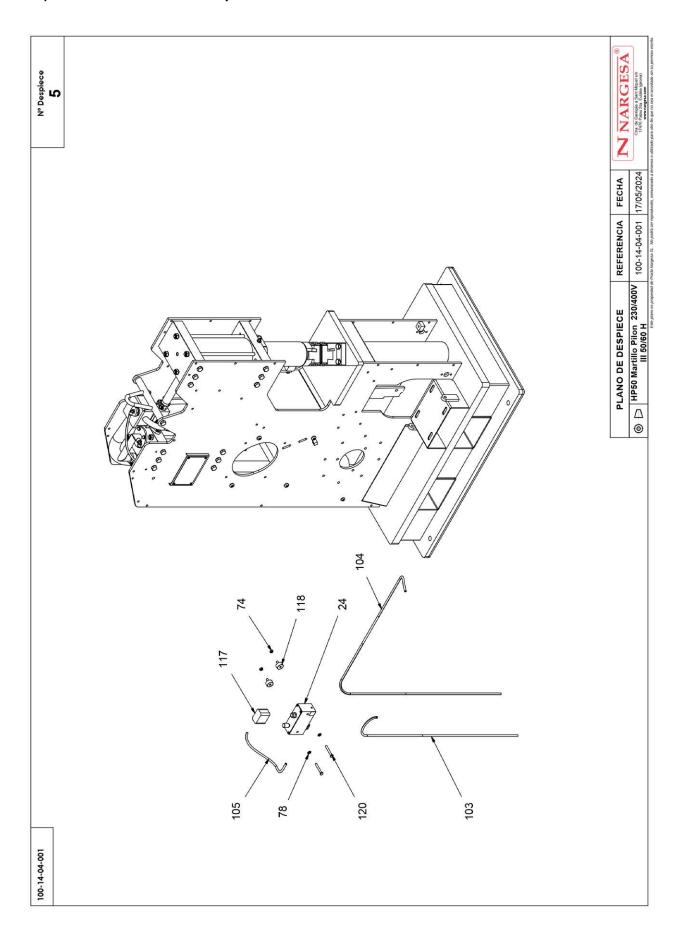




### A4. Exploded view of the ON-OFF lever

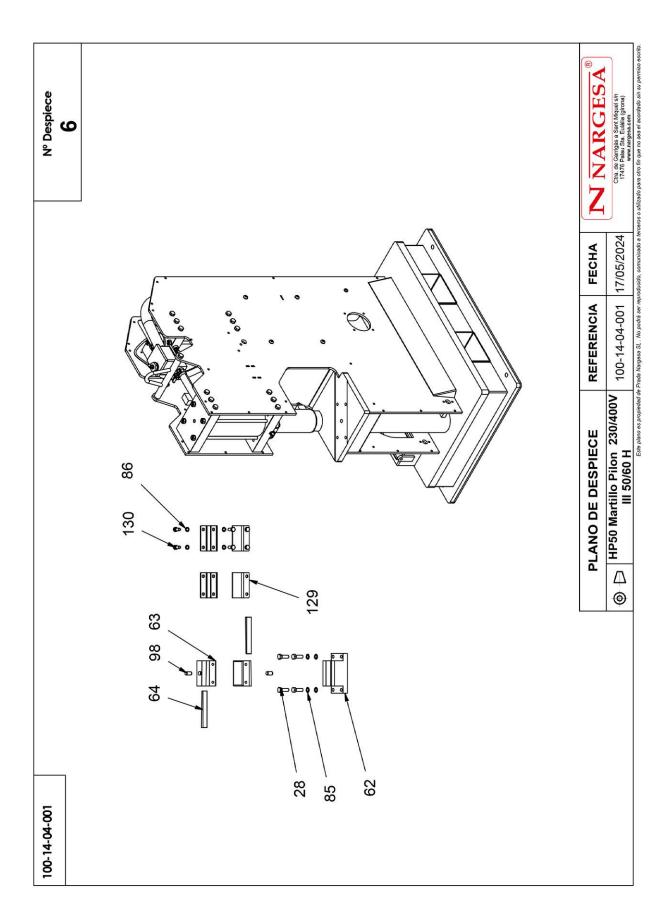


# A5. Exploded view of the lubrication system

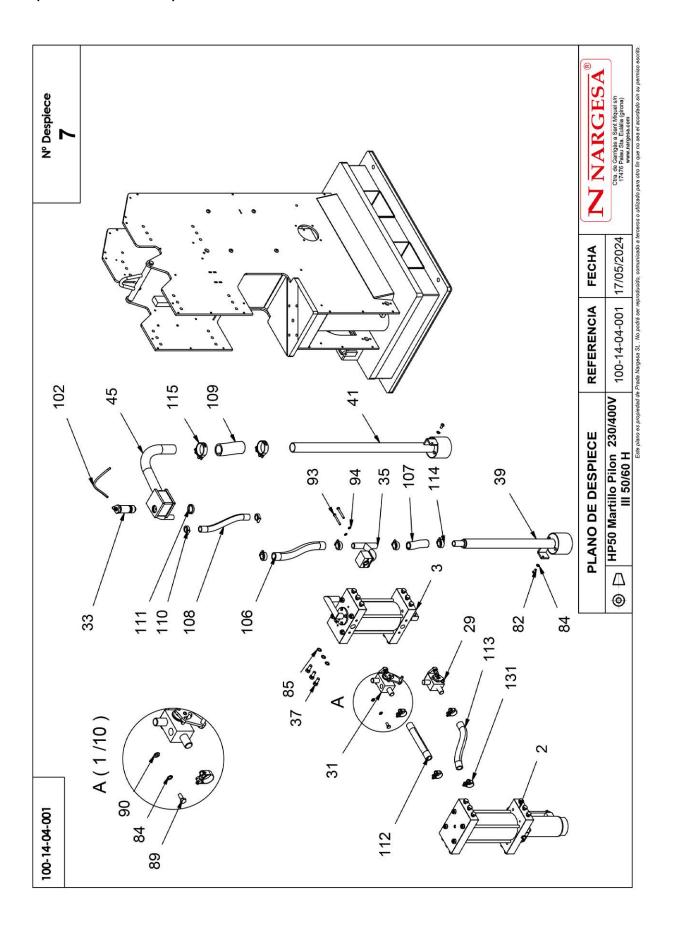




## A6. Exploded view of the molds

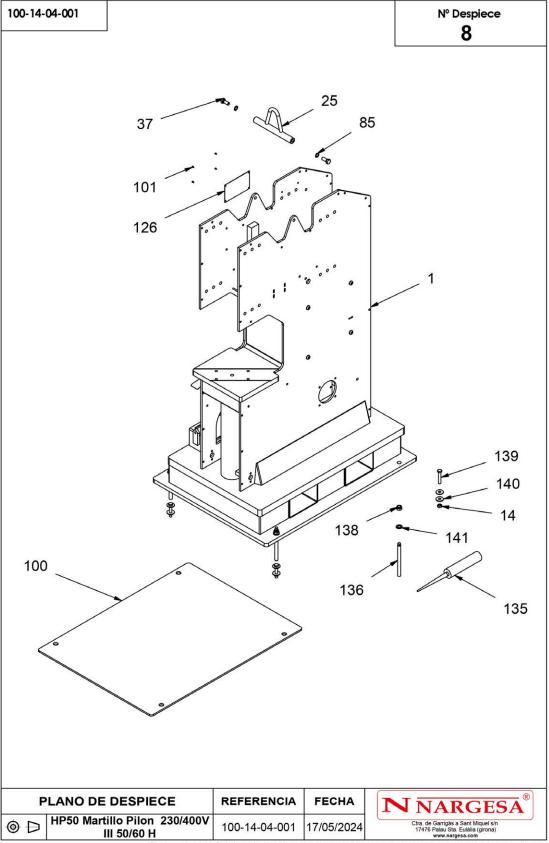


### A7. Exploded view of the compressor and hammer





#### A8. Exploded view of the hoisting and fixing system



Elemento	Miniatura	Nº de pieza	Descripción	CTDAD
1	3	130-14-04-00001	Conjunto Estructura Soldada Martillo Pilon	1
2		130-14-04-00002	Conjunto Martillo Impacto	1
3		130-14-04-00003	Conjunto Compresor	1
4		130-14-04-00004	Conjunto Biela Accionamiento Compresor	1
5		130-14-04-00005	Conjunto Polea Compresor	1
6		020-D933-M12X70	Tornillo Hexagonal DIN933 M12X70	1
7	0	120-14-04-00056	Arandela Eje Polea Compresor D69XD55X2	1
8	0	120-14-04-00054	Polea Motor Doble Canal SPB D80	1
9		050-ME-00026	Motor Electrico 2.2 KW 1500 Rpm 50-60Hz 240/400 V B3	1
10		030-D471-00015	Circlip Eje Din471 D55	1
11		030-D471-00004	Circlip Eje Din471 D30	1
12		130-14-04-00012	Conjunto Eje Polea Compresor	1
13	7	130-14-04-00013	Conjunto Eje Pedal Accionamiento	2
14		020-D934-M12	Tuerca DIN 934 M12	7



Elemento	Miniatura	Nº de pieza	Descripción	CTDAD
15	7	130-14-04-00015	Conjunto Final Pedal	1
16	0	120-14-04-00057	Arandela Eje Biela D40XD30X2	1
17	J	130-14-04-00017	Conjunto Bulón Compresor	1
18	1	130-14-04-00018	Conjunto Cuadrado Seguro	1
19	×	130-14-04-00019	Conjunto Ventilador	1
20		130-14-04-00020	Conjunto Final Mando Electrico	1
21		130-14-04-00021	Conjunto Bandeja Aceite	1
22		130-14-04-00022	Conjunto Bandeja	1
23		130-14-04-00023	Conjunto Tapa Ventilador	1
24		130-14-04-00024	Conjunto Engrase	1
25	V	130-14-04-00025	Conjunto Barra Elevadora	1
26		130-14-04-00026	Conjunto Guia Proteccion Frontal	1
27	10	130-14-04-00027	Conjunto Soporte Guia Proteccion Frontal	1
28		020-D933-M14X45	Tornillo Hexagonal DIN 933 M14X45 8.8 PAVONADO	4

Elemento	Miniatura	Nº de pieza	Descripción	CTDAD
29	1	130-14-04-00029	Conjunto Valvula Inferior Paro Marcha	1
30	D	120-14-04-00079	Tapa Superior Motor	1
31		130-14-04-00031	Conjunto Válvula Superior	1
32		020-I7380-M12x30	Tornillo Allen ISO 7380 M12x30	11
33		130-14-04-00033	Conjunto Válvula de Retención	1
34		120-14-04-00119	Biela Accionamiento Valvula Superior	1
35		130-14-04-00035	Conjunto Valvula Aspiración Inferior Compresor	1
36	H	130-14-04-00036	Conjunto Final Proteccion Frontal	1
37		020-D933-M14X35	Tornillo Hexagonal DIN 933 M14X35	26
38		020-I7380-M10X16	Tornillo Allen Abombado ISO7380 M10X16	48
39		130-14-04-00039	Conjunto Final Filtro Aspiracion	1
40	0	020-D125B-M12	Arandela DIN 125 B M12	7
41		130-14-04-00041	Conjunto Final Filtro Escape	1
42		120-14-04-00085	Tapa Registro Lateral	1



Elemento	Miniatura	Nº de pieza	Descripción	CTDAD
43		020-D933-M12X40	Tornillo Hexagonal DIN 933 M12X40	4
44		020-D985-M12	Tuerca Autoblocante DIN 985 M12	2
45	3	130-14-04-00045	Colector Escape Final	1
46		120-14-04-00080	Tapa Trasera Superior	1
47		120-14-04-00081	Tapa Frontal Superior	1
48	4	120-14-04-00082	Tapa Superior	1
49		120-14-04-00083	Tapa Frontal Inferior	1
50		120-14-04-00084	Tapa Trasera	1
51		120-14-04-00078	Canal Metalica Vertical	1
52		120-14-04-00077	Canal Metalica Inclinada	1
53		120-14-04-00074	Chapa Soporte Conjunto Accionamiento Electrico	1
54		120-14-04-00075	Chapa Base Accionamiento Electrico	1
55		120-14-04-00068	Biela Accionamiento Cuadrado Seguro	1
56		120-14-04-00067	Eje Paro Marcha	1

Elemento	Miniatura	№ de pieza	Descripción	CTDAD
57	0	120-14-04-00065	Brida Paro Marcha	1
58		031-PLF-00001	Palanca Fija 112X47 M12 Ref. 47004911301	1
59		120-14-04-00066	Casquillo Fijacion Eje Paro Marcha	1
60		031-POS-00014	Posicionador Muelle GN615-M12-K	1
61		120-14-04-00055	Pasamano Fijacion Motor	2
62	1	120-14-04-00058	Mesa Portamatriz	1
63		140-14-04-00001	Conjunto Matriz Base Martillo Pilon PH50	1
64	1	140-14-04-00003	Cuña Matrices	2
65	0	120-14-04-00076	Arandela Eje Pedal D25XD16X2	2
66		120-14-04-00069	Tensor Correa Ventiladdor	1
67	0	120-14-04-00125	PASAMANO TENSOR	1
68	0	120-14-04-00059	Polea Ventilador D180 SPA	1
69		030-CT-00003	CorreaTrapezoidal Dentada AX 1857	1
70	0	030-CT-00004	Correa Trapezoidal Dentada BX70 1823	2



Elemento	Miniatura	Nº de pieza	Descripción	CTDAD
71	0	120-14-04-00060	Arandela Delantera Polea Motor	1
72	0	120-14-04-00106	Tope Inferior Tapa Frontal	1
73	9	120-14-04-00124	Tope Proteccion Frontal	1
74		020-D934-M8	Tuerca Hexagonal DIN 934 M8	3
75		020-D933-M6X12	Tornillo Hexagonal DIN 933 M6X12	2
76		020-I <b>738</b> 0-M10X30	Tornillo Allen Abombado ISO 7380 M10x30	5
77		020-D985-M8	Tuerca Autoblocante DIN985 M8 ZINCADA	2
78	0	020-D125B-M8	Arandela Biselada DIN 125B M8	6
79	1	020-D933-M6X16	Tornillo Hexagonal DIN 933 M6X16	1
80		020-D985-M18	Tuerca Autoblocante DIN985 M8 ZINCADA	1
81		020-I7380-M10X40	Tornillo Allen de Cabeza Redonda M10x40	4
82		020-I7380-M10X20	Tornillo Allen Abombado ISO7380 M10X20	4
83		120-14-04-00169	Placa Paro Marcha	1
84	<b></b>	020-D6797-M10	Arandela de seguridad dentada DIN 6797-A M10	69

Elemento	Miniatura	Nº de pieza	Descripción	CTDAD
85	<b>*</b>	020-D6797-M14	Arandela de seguridad dentada DIN 6797-A M14	30
86	*	020-D6797-M12	Arandela de seguridad dentada DIN 6797-A M12	19
87	<b>*</b>	020-D6797-M6	Arandela de seguridad dentada DIN 6797-A M6	1
88		020-D913-M6X10	Espárrago Allen DIN913 M6X10	1
89		020-D933-M10X25	Tornillo Hexagonal DIN 933 M10X25	4
90	0	020-D125B-M10	Arandela Biselada DIN 125B M10	4
91	$\langle$	030-D94-00001	Pasador de Aletas DIN 94 D3.2X30	2
92		030-D6325-D6x26	Pasador Paralelo Rectificado DIN 6325 D6X26	2
93		020-D931-M8X70	Tornillo Hexagonal DIN 931 M8X70	2
94	<b>*</b>	020-D6797-M8	Arandela de seguridad dentada DIN 6797-A M8	2
95		031-BM-00003	BASE MAGNETICA Ø16X4.5 AGUJERO AVELLANADO	1
96		020-D7991-M3X10	Tornillo Allen Avellanado DIN7991 M3X10	1
97		020-D933-M10X45	Tornillo Hexagonal DIN933 M10X45	2
98		030-D6325-00016	Pasador Cilindrico DIN 6325 D16X30	2



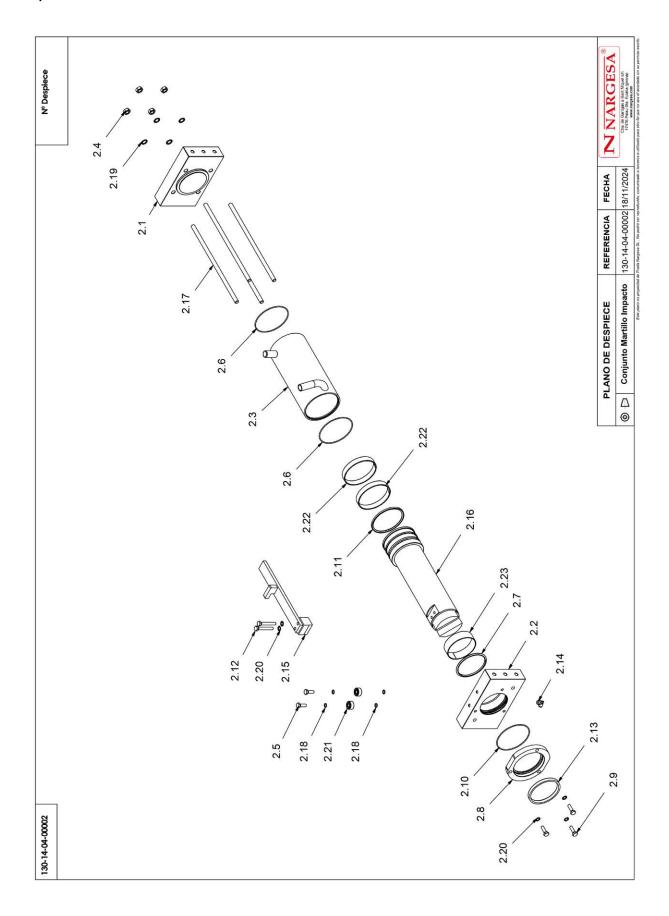
Elemento	Miniatura	Nº de pieza	Descripción	CTDAD
99		020-D933-M8X40	Tornillo Hexagonal DIN 933 M8X40	1
100		120-14-04-00127	Goma Inferior	1
101	0	020-D7337-3X8	Remache De Clavo DIN7337 De AI D3X8	4
102	<b>\</b>	120-14-04-00132	Tubo Valvula Anticaida	1
103		120-14-04-00133	Tubo Drenaje Compresor	1
104		120-14-04-00134	Tubo Drenaje Martillo	1
105	/	120-14-04-00168	Manguera Engrase	1
106	/	120-14-04-00135	Manguera Superior Filtro Admision	1
107	j	120-14-04-00136	Manguera Inferior Filtro Admision	1
108	/	120-14-04-00165	Manguera Escape Valvula Inferior	1
109	j	120-14-04-00137	Manguera Filtro Escape	1
110		040-ABR-00006	Abrazadera Sin Fin 12mm (25-40)	2
111	0	120-14-04-00156	Anillo Separador Colector Escape	1
112		120-14-04-00166	Manguera Superior Martillo	1

Elemento	Miniatura	Nº de pieza	Descripción	CTDAD
113	/	120-14-04-00167	Manguera Inferior Martillo	1
114		040-ABR-00005	Abrazadera Sin Fin 12 mm (35-50)	4
115	Ö	040-ABR-00007	Abrazadera GP 22 mm (63-69)	2
116		020-D933-M10X35	Tornillo Hexagonal DIN 933 M10X35	1
117		120-14-04-00170	Aceite Engrase Neumatico 0.12 Litros	1
118	Ġ	031-SIB-00014	Silentblock D30X15 Macho Hembra M8 DVA.2-30-15-M8-20-70	2
119		031-SIB-00013	Silentblock D20X25 M6 Doble Hembra DVA.3-20-25-M6-40	4
120		020-D931-M8X60	Tornillo Hex. Media Rosca DIN931 M8X60	2
121		020-17380-M6X8	Tornillo Allen Abombado ISO7380 M6X8	8
122		020-D7985-M5X8	Tornillo DIN 7985 M5x8 Philips	2
123	<b>(</b>	020-D934-M10	Tuerca Hexagonal DIN934 M10	1
124		020-D933-M10X50	Tornillo Hexagonal DIN 933 M10x50	1
125	8	031-POMM-00017	POMO MACHO ESTRELLA MATE Ø40 M8X16	1
126	-	122-PLC-0000-001	Placa Caracteristicas General	1



Elemento	Miniatura	Nº de pieza	Descripción	CTDAD
127	<b>N</b> 0%0	122-CAL-1404-00001	Calca Advertencia Martillo Pilon	1
128		020-D912-M10X35	Tornillo Allen DIN 912 M10X35	1
129		140-14-04-00002	Conjunto Sufrideras Martillo Pilon PH50	2
130		020-D933-M12X30	Tornillo Hexagonal DIN 933 M12x30	8
131	100	040-ABR-00008	Abrazadera MIKALOR SUPRA W4 34-37	4
132	0	120-14-04-00182	CHAPA TOPE CAJON	1
133		020-D934-M6	Tuerca Hexagonal DIN 934 M6	1
134	Curo per more	122-ADH-00007	Calca Sentido de Giro	1
135	1	060-ALM-00077	Anclaje Quimico FIS PLUS 300 T (FISCHER)	1
136	-	060-ALM-00078	VARILLA RGM 16X190 (FISCHER)	4
137		020-D933-M12X60	Tornillo Hexagonal DIN 933 M12X60	1
138		020-D985-M16	TUERCA DIN 985 M16	4
139		020-D931-M12X70	TORNILLO HEXAGONAL DIN 931 M12X70	4
140	0	020-D9021-M12	Arandela Ancha DIN9021 Para M12	8
141	0	020-D125B-M16	Arandela Biselada DIN125B Para M16	4

### A9. Exploded view of the hammer ensemble



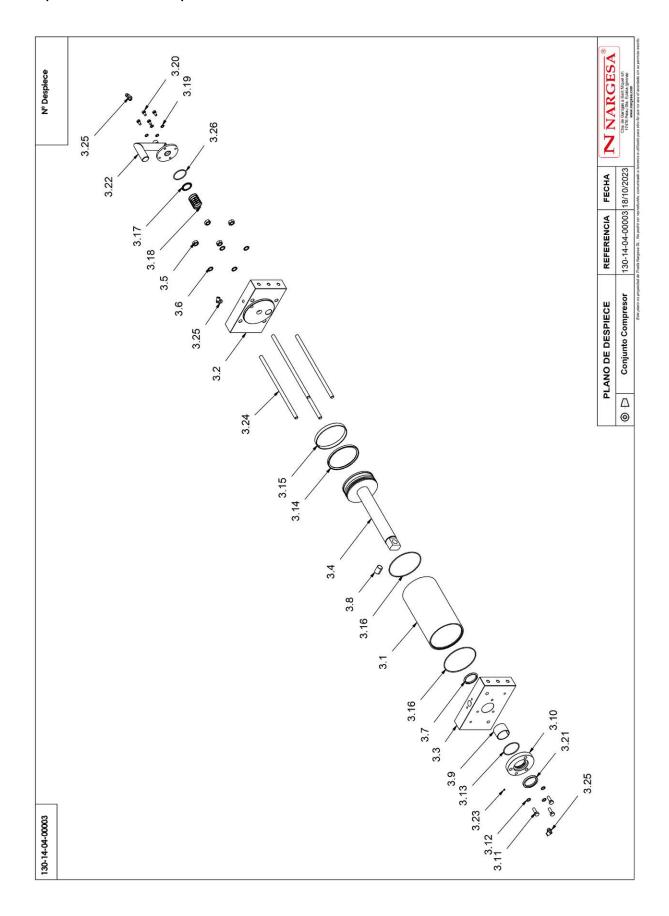


Elemento	Miniatura	Nº de pieza	Descripción	CTDAD
2.1		120-14-04-00019	Tapa Superior Cilindro Martillo	1
2.2		120-14-04-00020	Tapa Inferior Cilindro Martillo	i
2.3	300	130-14-04-00006	Conjunto Soldado Camisa D130	1
2.4	10	020-D934-M14	Tuerca DIN 934 M14	.4
2.5		020-D933-M10X30	Tornillo Hexagonal DIN 933 M10X30	2
2.6		040-JT-00060	JUNTA TORICA Ø130X3	2
2.7	0	042-JUV-00002	Junta de Vastago Trelleborg ARG301100Z80N	1
2.8	0	120-14-04-00023	Casquillo Inferior Cilindro Martillo	1
2.9		020-D933-M10X35	Tornillo Hexagonal DIN 933 M10X35	3
2.10		040-JT-00063	JUNTA TORICA Ø128X3	1
2.11	0	042-JUP-00002	Junta Piston Trelleborg APG301300Z80N	1
2.12		020-D933-M10X70	Tornillo Hexagonal DIN 933 M10X70	2
2.13	0	040-RET-00020	Reten D110XD125X12	1
2.14	\$6	042-RAC-00001	Racor Codo Bajo Para Tubo D8 Macho 1/4	1

Elemento	Miniatura	Nº de pieza	Descripción	CTDAD
2.15		130-14-04-00008	Conjunto Antigiro	Ĭ
2.16		130-14-04-00007	Conjunto Vastago D110	1
2.17	/	120-14-04-00021	Varilla Cilindro Martillo	4
2.18	0	120-14-04-00022	Arandela Cojinete Guia Martillo D15XD10X1	4
2.19		020-D6797-M <b>1</b> 4	Arandela de seguridad dentada DIN 6797-A M14	4
2.20	*	020-D6797-M10	Arandela de seguridad dentada DIN 6797-A M10	5
2.21	0	030-CI-00043	Rodamiento de Bolas 62200 D10XD30X14 2RS	2
2.22	0	042-GUI-00002	Guia Piston D130 20X3 L=399 mm	2
2.23	O	120-14-04-00171	Dolla Partida Ø110XØ115X33	1



### A10. Exploded view of the compressor

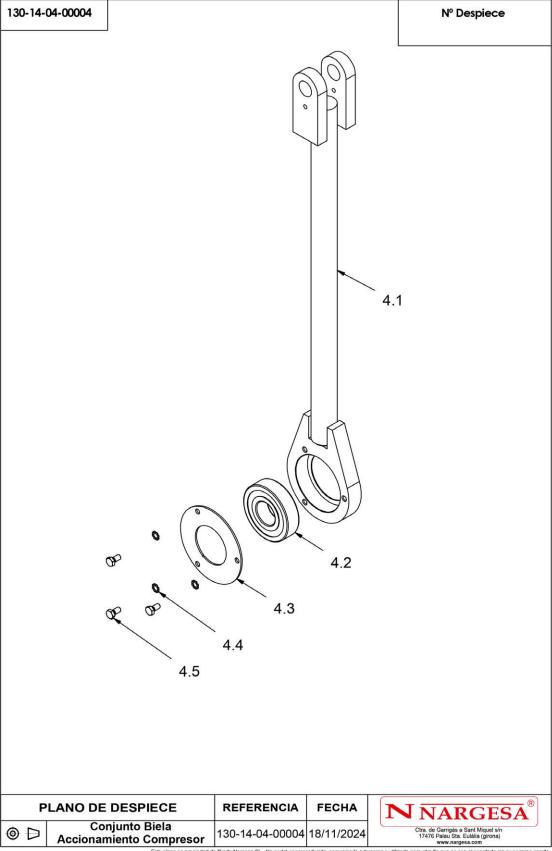


Elemento	Miniatura	№ de pieza	Título	CTDAD
3.1		120-14-04-00026	Camisa Cilindro Compresor D140	1
3.2		120-14-04-00024	Tapa Superior Cilindro Compresor	1
3.3		120-14-04-00025	Tapa Inferior Cilindro Compresor	1
3.4		130-14-04-00009	Conjunto Vastago Compresor D140	1
3.5	To	020-D934-M14	Tuerca DIN 934 M14	4
3.6		020-D6797-M14	Arandela de seguridad dentada DIN 6797-A M14	4
3.7	0	042-JUV-00001	Junta de Vastado Trelleborg ARG300500Z80N	1
3.8		030-DP-00060	Dolla Partida D20XD23X30	1
3.9	-	030-DP-00019	DOLLA PARTIDA D50XD55X40	1
3.10		120-14-04-00028	Casquillo Inferior Cilindro Compresor D140	1
3.11		020-D933-M10X30	Tornillo Hexagonal DIN 933 M10X30	3
3.12	*	020-D6797-M10	Arandela de seguridad dentada DIN 6797-A M10	3
3.13	0	040-JT-00062	JUNTA TORICA Ø66X3	1
3.14	0	042-JUP-00001	Junta Piston Trelleborg APG401400Z80N	1



Elemento	Miniatura	Nº de pieza	Título	CTDAD
3.15	0	042-GUI-00001	Guia Piston Trelleborg GP7301400-T47 L=432	1
3.16		040-JT-00059	JUNTA TORICA Ø140X3	2
3.17		120-14-04-00029	Platillo Valvula Entrada	1
3.18		120-14-04-00030	Muelle Diam. Ext. 40 mm Hilo D2 mm Paso 9 mm L=54 mm	1
3.19	1	020-D <del>6</del> 797-M8	Arandela de seguridad dentada DIN 6797-A M8	4
3.20		020-D933-M8X16	Tornillo Hexagonal DIN 933 M8X16	4
3.21		040-RET-00019	Reten D50XD65X8	1
3.22	10	130-14-04-00037	Colector Admision Compresor	1
3.23		020-D913-M6X6	Esparrago Allen DIN 913 M6X6	1
3.24	/	120-14-04-00027	Varilla Cilindro Compresor	4
3.25		042-RAC-00001	Racor Codo Bajo Para Tubo D8 Macho 1/4	3
3.26	0	040-JT-00099	JUNTA TORICA D52X3 Nbr 70 Shore	1

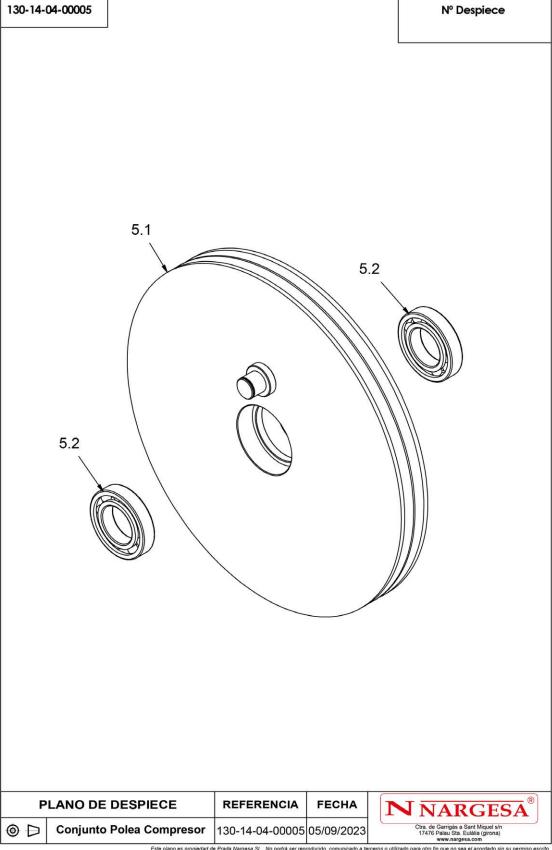
### A11. Exploded view of the drive system connecting rod





Elemento	Miniatura	№ de pieza	Descripción	CTDAD
4.1	S. S	130-14-04-00010	Conjunto Soldado Biela Accionamiento	1
4.2	0	030-CJ-00046	Rodamiento de Bolas 6306 2RS D30XD72X19	1
4.3	0	120-14-04-00031	Tapa Cojinete Biela Compresor	1
4.4		020-D6797-M6	Arandela de seguridad dentada DIN 6797-A M6	3
4.5		020-D933-M6X12	Tornillo Hexagonal DIN 933 M6X12	3

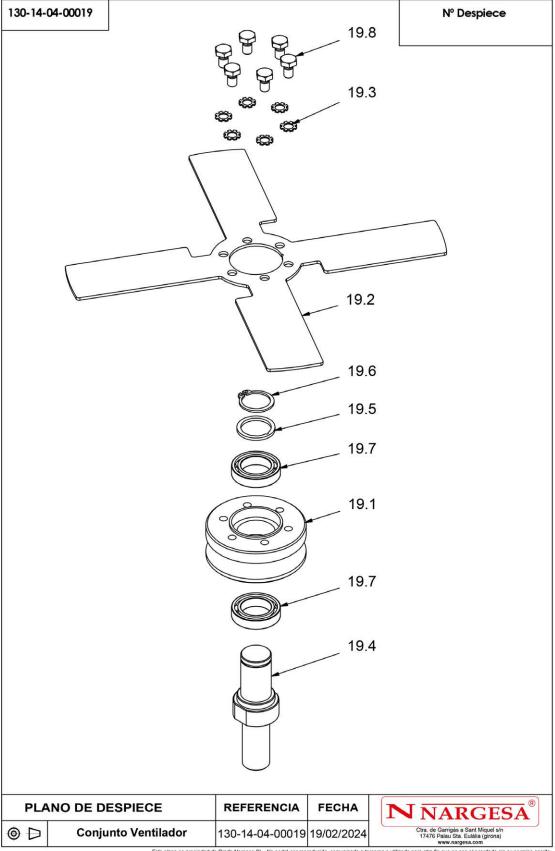
### A12. Exploded view of the compressor pulley





Elemento	Miniatura	№ de pieza	Descripción	CTDAD
5.1	0	130-14-04-00011	Conjunto Final Soldado Polea Compresor	1
5.2	0	030-CJ-00014	Rodamiento De Bolas 6211-2Rs D55XD100X21	2

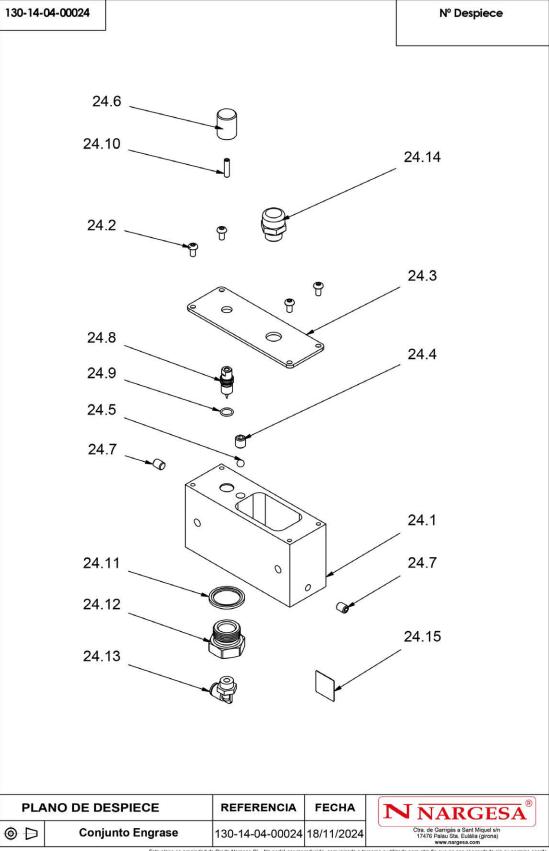
#### A13. Exploded view of the fan ensemble





Elemento	Miniatura	№ de pieza	Descripción	CTDAD
19.1	0	120-14-04-00070	Polea Tipo SPA D60	1
19.2	×	120-14-04-00071	Ventilador de Refrigeracion	Ĺ
19.3	*	020-D6797-M6	Arandela de seguridad dentada DIN 6797-A M6	6
19.4	9	120-14-04-00072	Eje Ventilador	1
19.5	0	120-14-04-00073	Arandela Eje Ventilador D25XD20X2	1
19.6		030-D471-00010	Circlip Eje Din471 D20	1
19.7	O	030-CJ-00045	Rodamiento de Bolas 61804 D20xD32X7 RS1	2
19.8		020-D933-M6x10	Tornillo Hexagonal DIN 933 M6X10	6

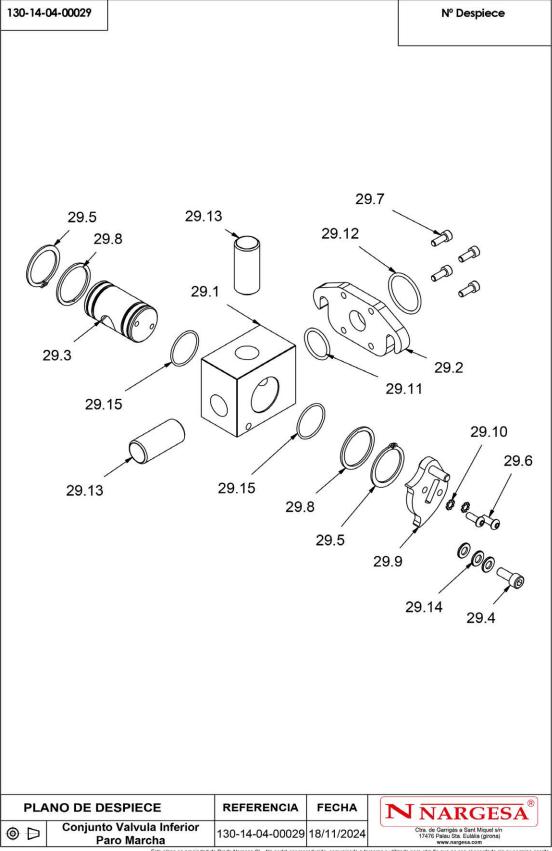
#### A14. Exploded view of the greasing ensemble





Elemento	Miniatura	№ de pieza	Descripción	CTDAD
24.1	N	120-14-04-00094	Deposito Engrase	1
24.2	9	020-17380-M5x10	Tornillo Allen ISO 7380 M5x10	4
24.3		120-14-04-00095	Tapa Depossito Engrase	1
24.4		020-D913-M10X10	Esparrago Allen DIN 913 M10X10	1
24.5	0	030-B <b>O</b> L-00003	Bola de Diametro 7	1
24.6		125-17-01-14012	Pomo D19	1
24.7		020-D913-M8X10	Esparrago Allen DIN 913 M8X10	2
24.8		120-14-04-00096	Aguja Venturi Engrase	1
24.9	0	040-JT-00064	JUNTA TORICA Ø10X1.5	i
24.10		020-D913-M5X20	Esparrago Allen DIN913 M5X20	1
24.11	0	040-JMG-0000 <b>7</b>	Junta Metal Goma 3/4' Gas	1
24.12	8	120-14-04-00097	Tapon Salida Deposito Engrasee	Ĭ
24.13		042-RAC-00001	Racor Codo Bajo Para Tubo D8 Macho 1/4	1
24.14		040-TRE-00001	Tapón Respiradero 3/8"	1
24.15	SACO	122-CAL-1404-00002	Calca Tipo Aceite Engrase	Ĭ

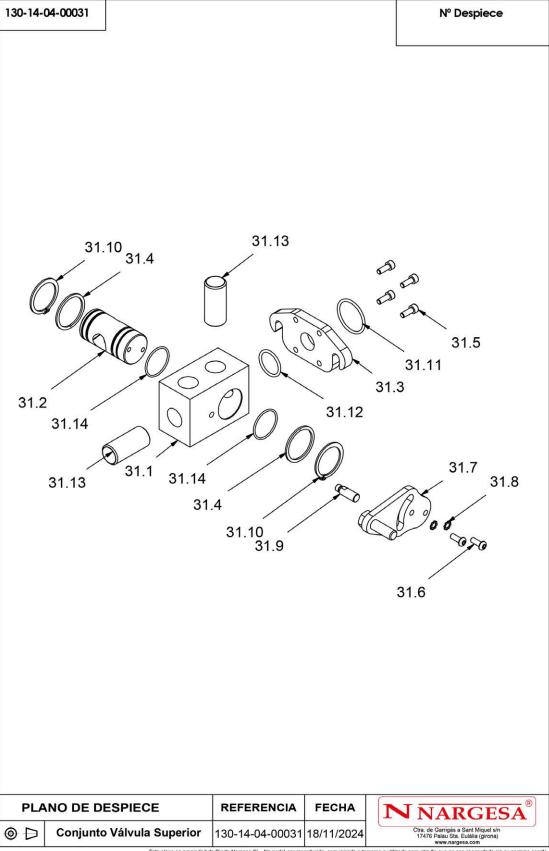
#### A15. Exploded view of the lower on-off valve ensemble





Elemento	Miniatura	№ de pieza	Descripción	CTDAD
29.1	99	120-14-04-00107	Cuerpo Valvula Inferior	1
29.2	<b>D</b>	120-14-04-00109	Platina Fijacion Valvulas	1
29.3		120-14-04-00108	Eje Valvula Inferior	1
29.4		020-D912-M8X20	Tornillo Allen DIN912 M8X20	1
29.5		030-D471-D38X1_75	Circlip Eje Din471 D38	2
29.6		020-l7380-M6X16	Tornillo Allen Abombado ISO7380 M6X16	2
29.7		020-D912-M6X16	Tornillo Allen DIN912 M6X16	<u>.</u> 4
29.8	0	120-14-04-00110	Arandela D45XD38X2	2
29.9	27	130-14-04-00030	Conjunto Palanca Accionamiento Valvula Inferior	Ĭ
29.10	<b></b>	020-D6797-M6	Arandela de seguridad dentada DIN 6797-A M6	2
29.11	0	040-JT-00043	JUNTA TORICA Ø28X3	1
29.12	0	040-JT-00042	JUNTA TORICA Ø38X3	ĩ
29.13	j	120-14-04-00128	Tubo Salida Valvula Superior	2
29.14	0	020-D125B-M8	Arandela Biselada DIN 125B M8	3
29.15	0	040-JT-00103	JUNTA TORICA D34X2 Nbr 70 Shore	2

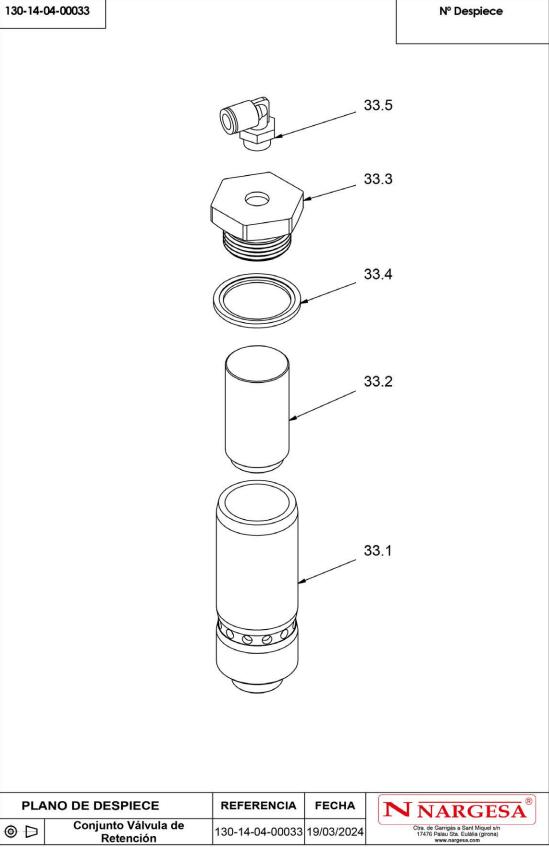
#### A16. Exploded view of the upper valve ensemble





Elemento	Miniatura	Nº de pieza	Descripción	CTDAD
31.1		120-14-04-00112	Cuerpo Valvula Superior	1
31.2		120-14-04-00113	Eje Valvula Superior	1
31.3	<b>E</b>	120-14-04-00109	Platina Fijacion Valvulas	1
31.4	0	120-14-04-00110	Arandela D45XD38X2	2
31.5		020-D912-M6X16	Tornillo Allen DIN912 M6X16	4
31.6		020-I7380-M6X16	Tornillo Allen Abombado ISO7380 M6X16	2
31.7	9	130-14-04-00032	Conjunto Accionamiento Valvula Superior	1
31.8	<b></b>	020-D6797-M6	Arandela de seguridad dentada DIN 6797-A M6	2
31.9		120-14-04-00115	Tope Accionamiento Valvula Superior	1
31.10		030-D471-D38X1_75	Circlip Eje Din471 D38	2
31.11	0	040-JT-00042	JUNTA TORICA Ø38X3	1
31.12	0	040-JT-00043	JUNTA TORICA Ø28X3	1
31.13	j	120-14-04-00128	Tubo Salida Valvula Superior	2
31.14	0	040-JT-00103	JUNTA TORICA D34X2 Nbr 70 Shore	2

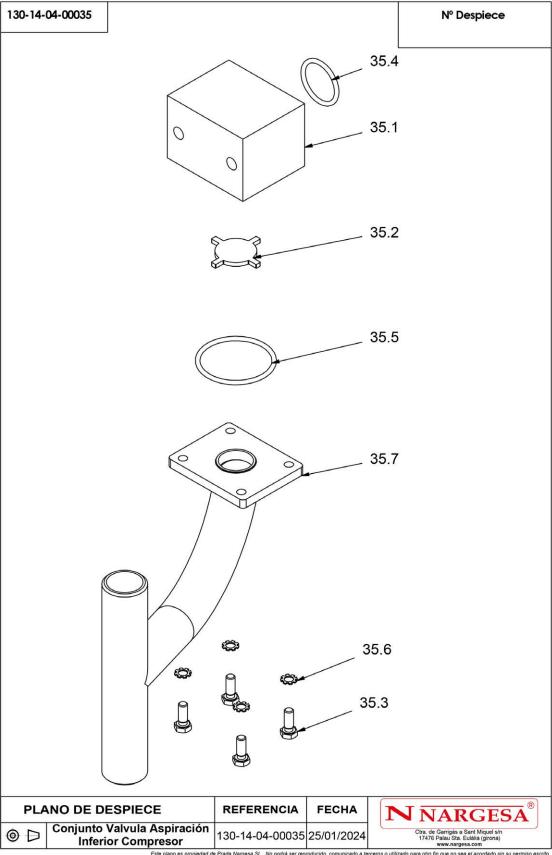
#### A17. Exploded view of the check valve ensemble





Elemento	Miniatura	№ de pieza	Descripción	CTDAD
33.1	1	120-14-04-00116	Cuerpo Valvula de Retencion	1
33.2		120-14-04-00117	Piston Valvula de Retencion	1
33.3		120-14-04-00118	Tapon Valvula de Retencion	1
33.4	0	040-JMG-00006	Junta Metal Goma 1' Gas	1
33.5	30	042-RAC-00001	Racor Codo Bajo Para Tubo D8 Macho 1/4	1

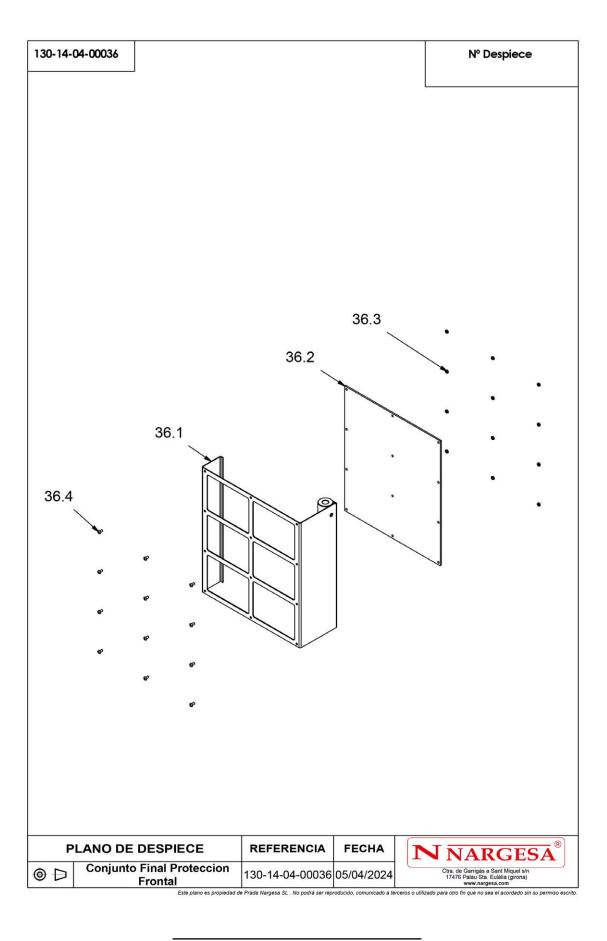
## A18. Exploded view of the lower aspirator valve ensemble on the compressor





Elemento	Miniatura	№ de pieza	Descripción	CTDAD
35.1		120-14-04-00121	Cuerpo Valvula Aspiracion Inferior	1
35.2	I	120-14-04-00123	Platillo Valvula Aspiracion	<b>1</b>
35.3		020-D933-M6X16	Tornillo Hexagonal DIN 933 M6X16	.4
35.4	0	040-JT-00043	JUNTA TORICA Ø28X3	1
35.5	0	040-JT-00100	JUNTA TORICA D47X3 Nbr 70 Shore	1
35.6		020-D6797-M6	Arandela de seguridad dentada DIN 6797-A M6	4
35.7	P	130-14-04-00044	Conjunto Tapa Inferior Valvula Admision	1

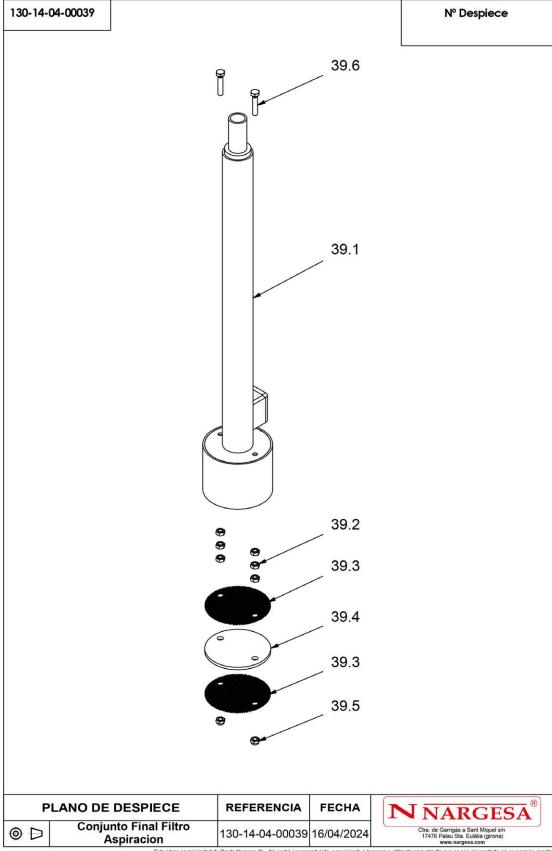
## A19. Exploded view of the front protective element





Elemento	Miniatura	Nº de pieza	Descripción	CTDAD
36.1		130-14-04-00028	Conjunto Soldado Proteccion Frontal	1
36.2		120-14-04-00105	Policarbonato Proteccion Frontal	1
36.3		020-D934-M5	Tuerca Hexagonal DIN934 M5	12
36.4		020-l7380-M5x10	Tornillo Allen ISO 7380 M5x10	12

## A20. Exploded view of the aspirator filter ensemble

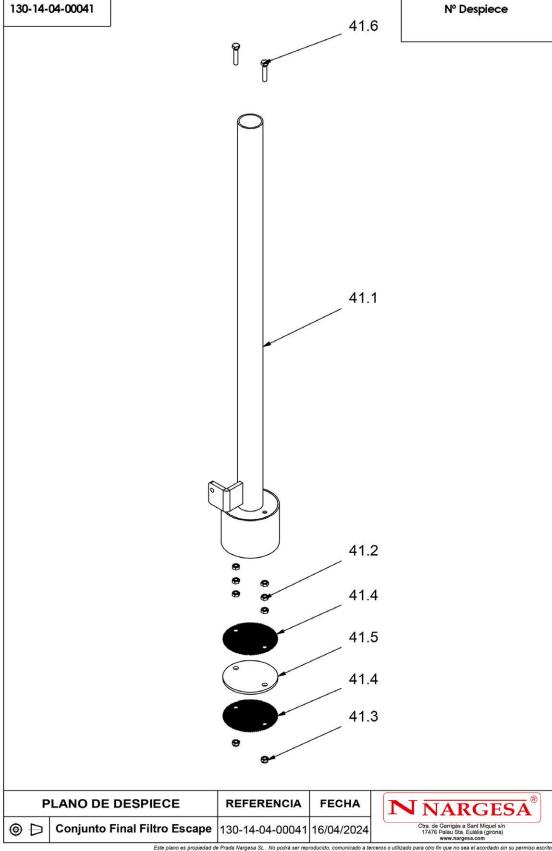


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Elemento	Miniatura	Nº de pieza	Descripción	CTDAD
39.1		130-14-04-00038	Conjunto Soldado Filtro Aspiracion	1
39.2		020-D934-M8	Tuerca Hexagonal DIN 934 M8	6
39.3	0	120-14-04-00147	Rejilla Filtros	2
39.4	0	120-14-04-00149	Filtro Espuma	1,
39.5		020-D985-M8	Tuerca Autoblocante DIN985 M8 ZINCADA	2
39.6		020-D933-M8X40	Tornillo Hexagonal DIN 933 M8X40	2

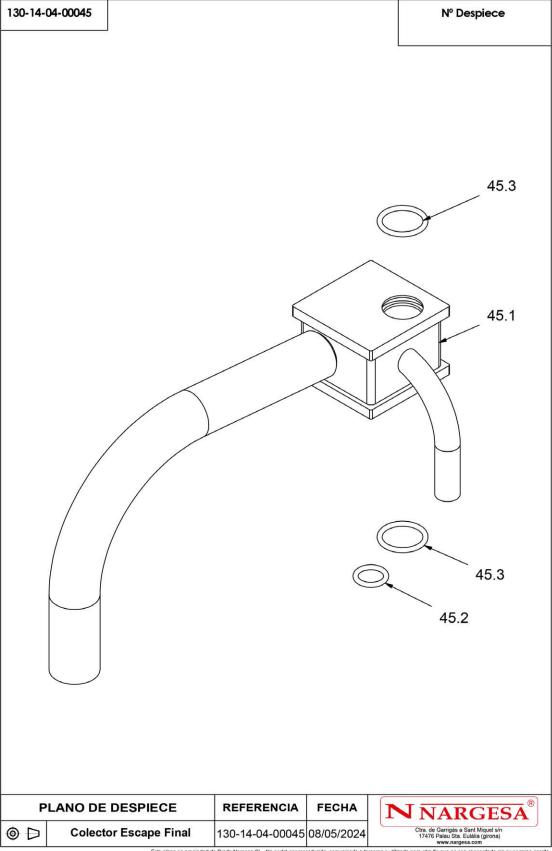
# A21. Exploded view of the exhaust filter ensemble





Elemento	Miniatura	№ de pieza	Descripción	CTDAD
41.1	3	130-14-04-00040	Conjunto Soldado Filtro Escape	1
41.2		020-D934-M8	Tuerca Hexagonal DIN 934 M8	6
41.3		020-D985-M8	Tuerca Autoblocante DIN985 M8 ZINCADA	2
41.4	0	120-14-04-00147	Rejilla Filtros	2
41.5	0	120-14-04-00149	Filtro Espuma	1
41.6		020-D933-M8X40	Tornillo Hexagonal DIN 933 M8X40	2

## A22. Exploded view of the exhaust collector

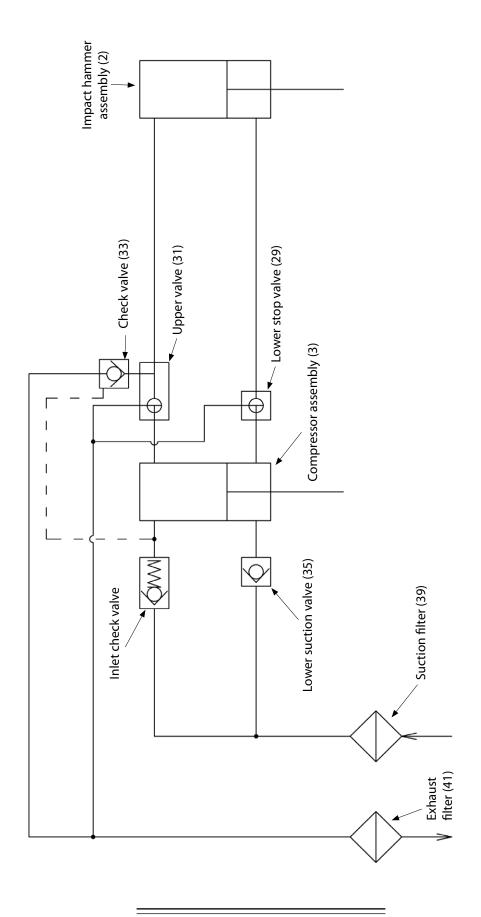


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Elemento	Miniatura	№ de pieza	Descripción	CTDAD
45.1	N. C.	130-14-04-00043	Colector Escape Soldadura Final	1
45.2	0	040-JT-00101	JUNTA TORICA D25X5 Nbr 70 Shore	1
45.3	0	040-JT-00102	JUNTA TORICA D40X5 Nbr 70 Shore	2

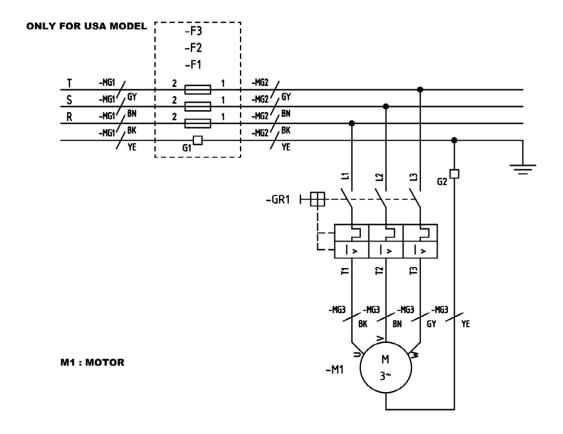
# A23. Pneumatic diagram





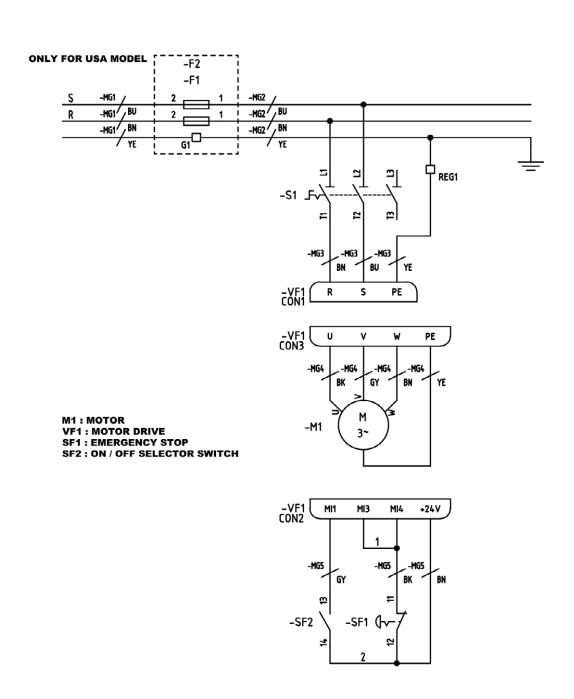
# A24. Electrical diagram · THREEPHASE MACHINE

3 PHASE MODEL



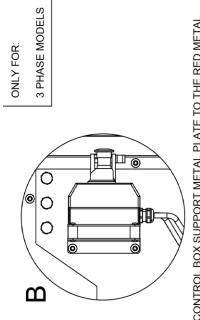
# A25. Electrical diagram · SINGLEPHASE MACHINE

SINGLE PHASE MODEL





# A26. Electrical cabinet · MAQUINA TRIFASICA

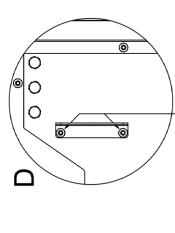


HIGH

TO FIX THE CONTROL BOX SUPPORT METAL PLATE TO THE RED METAL PLATE USE:

x8 M6x8 BLUED DOMED HEAD ALLEN SCREW (USE BLUE FIXING FLUID) x8 Øin = 6.5mm BLUED TOOTHED LOCK WASHER

x4 SILENTBLOCK REF. DVA-3-20-25-M6-40



USE GREEN FIXING FLUID TO FIX THE SCREWS OF THE RED METAL PLATE

x2 M5x8 ZINC PLATED DOMED HEAD PHILLIPS SCREW

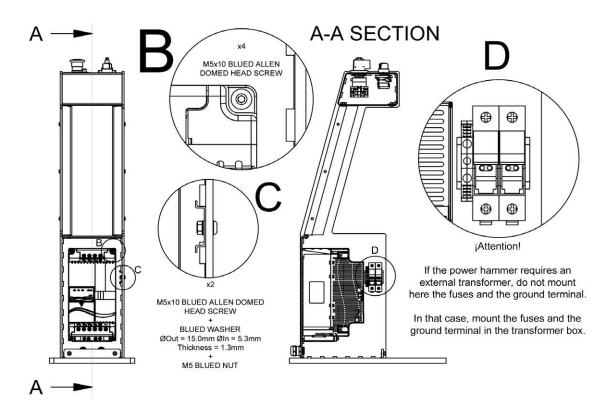
TO FIX THE CONTROL BOX TO THE SUPPORT METAL PLATE USE:

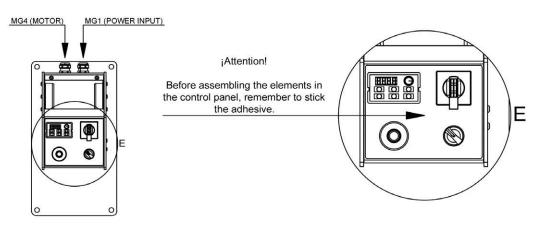
x4 M6x8 BLUED DOMED HEAD ALLEN SCREW (USE BLUE FIXING FLUID) TO FIX THE USA POWER INPUT BOX TO THE RED METAL PLATE USE: x4 Øin = 6.5mm BLUED TOOTHED LOCK WASHER

x2 SILENTBLOCK REF. DVA-3-20-25-M6-40

#### A27. Electrical cabinet · SINGLE-PHASE MACHINE

ONLY FOR: SINGLE PHASE MODELS





¡Attention!

To close all the covers use M6x8 blued allen domed head screws.

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