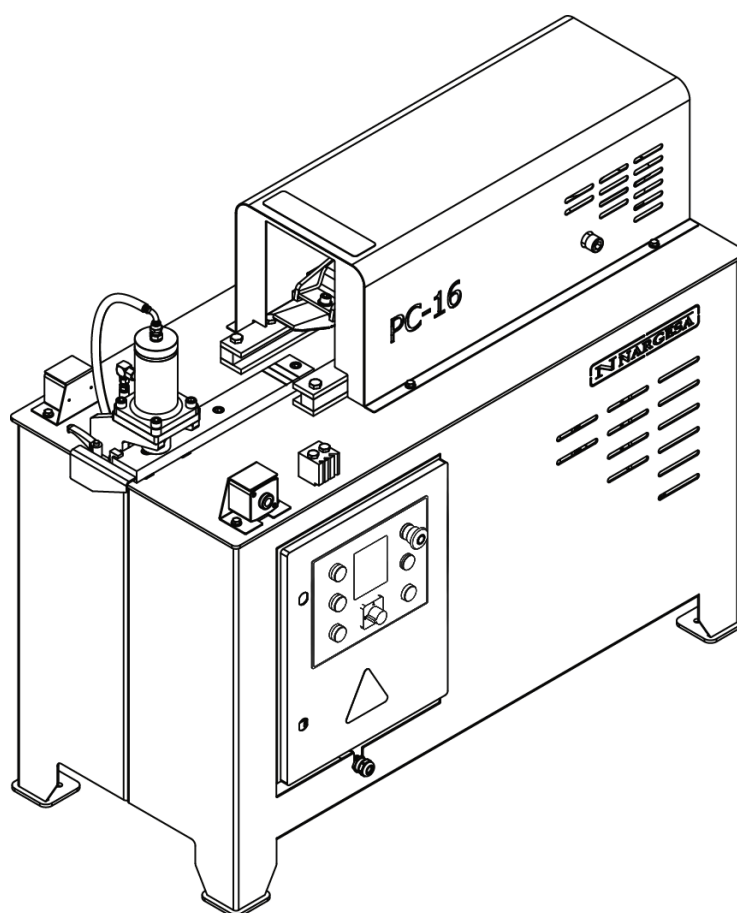


# **END WROUGHT IRON MACHINE**

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## **PC16**

NS: 2017-126



## **INSTRUCTIONS BOOK**

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**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](mailto:nargesa@nargesa.com) · [www.nargesa.com](http://www.nargesa.com)

Thank you for choosing our machines



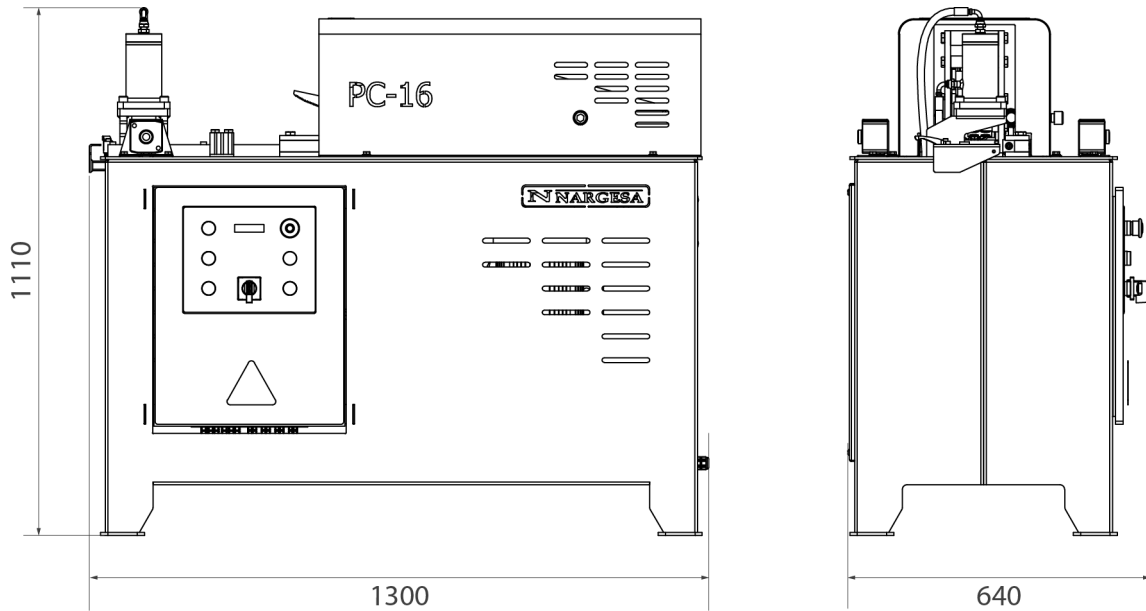
[www.nargesa.com](http://www.nargesa.com)

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## 1. FEATURES OF THE MACHINE

### 1.1. General dimensions



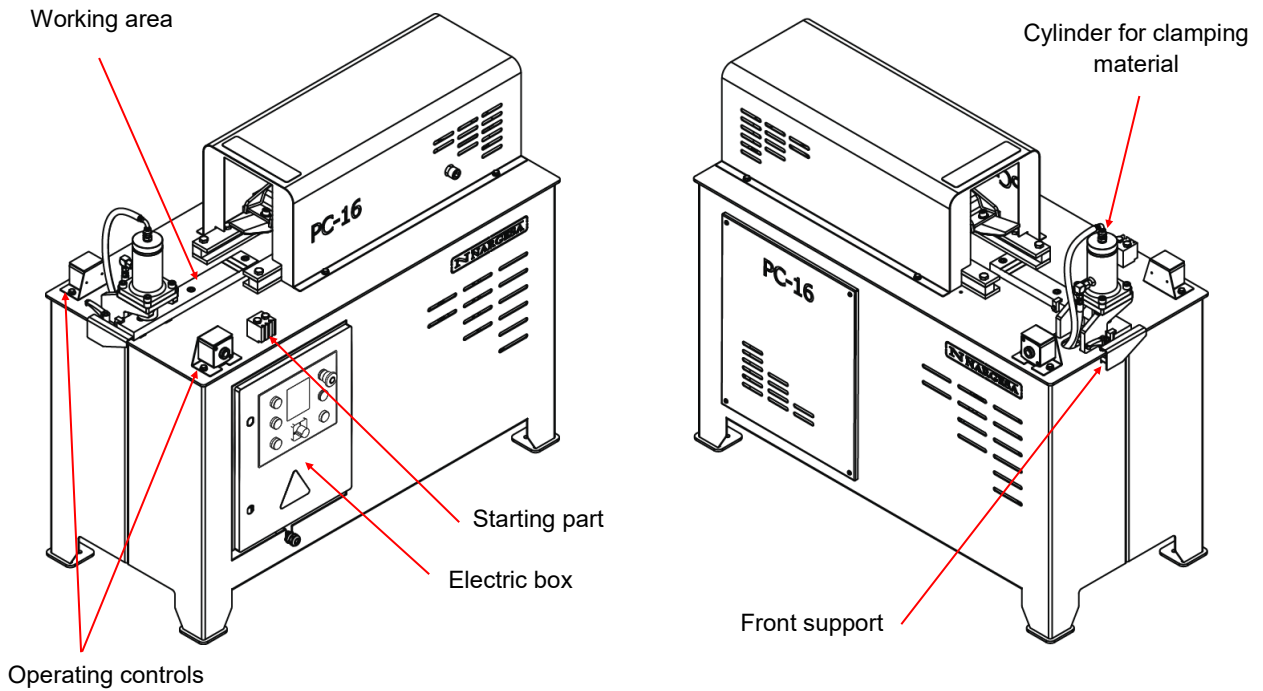
### 1.2. Description of the machine

The purpose of the hot forging machine NARGESA PC16 is to ease up the the work of winding the hot iron, by rolling up the hot extremes of flat bars.

**NOTE:**

**Any application other than the specified and for which it has been designed can cause damage to the machine and the user, thus the manufacturer does not take any responsibility.**

1.3. Identification of the machine

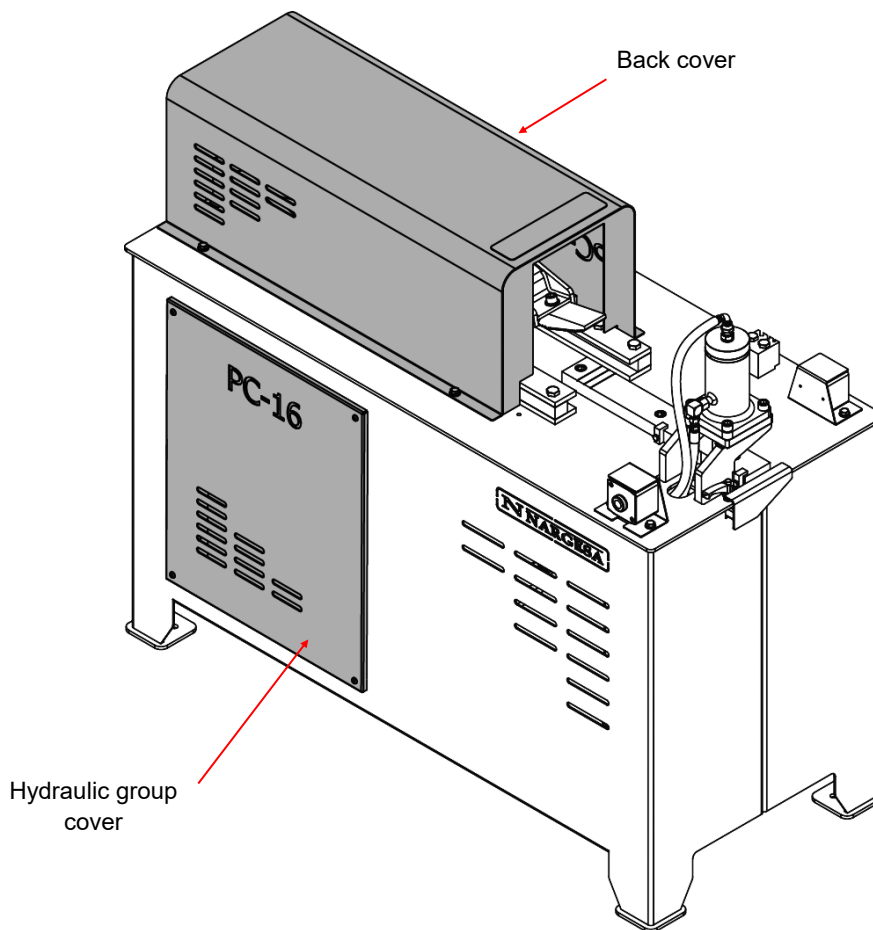


		<a href="http://www.nargesa.com">www.nargesa.com</a>			
PRADA NARGESA, S.L. - CTRA. DE GARRIGAS A SANT MIQUEL S/N 17476 PALAU DE STA. EULALIA (GIRONA) SPAIN - TEL.(+34) 972568085					
TRADEMARK NARGESA		MODEL PC16			
YEAR OF MANUFACTURE		SERIAL N <sup>o</sup>			
DIMENSIONS 640x1300x1110		mm.		WEIGHT 336 Kg.	
POWER 2,2 Kw.		INTENSITY 9/5 A.		VOLTAGE V. Hz 50/60	

#### 1.4. General features

Electric motor	2.2 KW (3 HP) at 1400 r.p.m.
Tension	230/400V Three-Phase 50/60 Hz 230V Single-Phase 50/60 Hz
Intensity	9/5 A
Hydraulic pressure	210 Kg/cm <sup>2</sup>
Hydraulic pump	7.5 liters / minute
Container	27 liters
Weight	336 Kg.

#### 1.5. Identification of safety protections

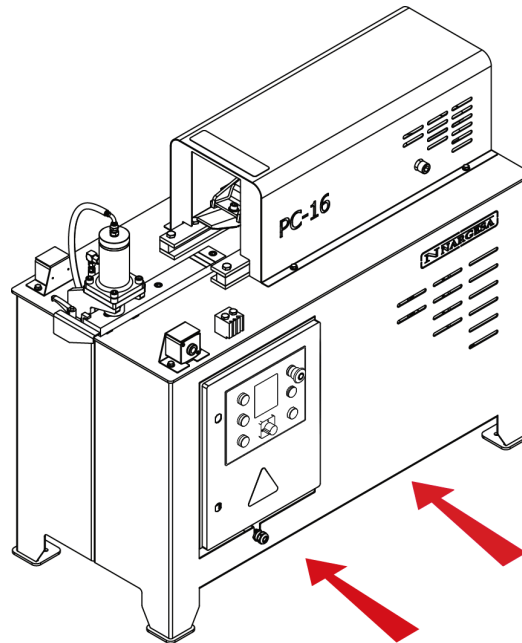


**It is FORBIDDEN to work without safety devices in this area. Protection items will be solely removed during breakdowns (if necessary) and always with the machine stopped.**

## 2. TRANSPORTATION AND STORAGE

### 2.1. Transportation

Transportation of the machine should be carried out by a forklift truck. The lower part of the machine will be lifting point which has been designed for this purpose, as it described below.



*The risk of overturning the machine must be kept in mind.*

### 2.2. Storage conditions

- \* Relative humidity between 30% and 95% without condensation.
- \* Temperatur between 15°C and 55°C.
- \* Do not put anything on top of the machine.
- \* Do not dismantle the machine when stored.

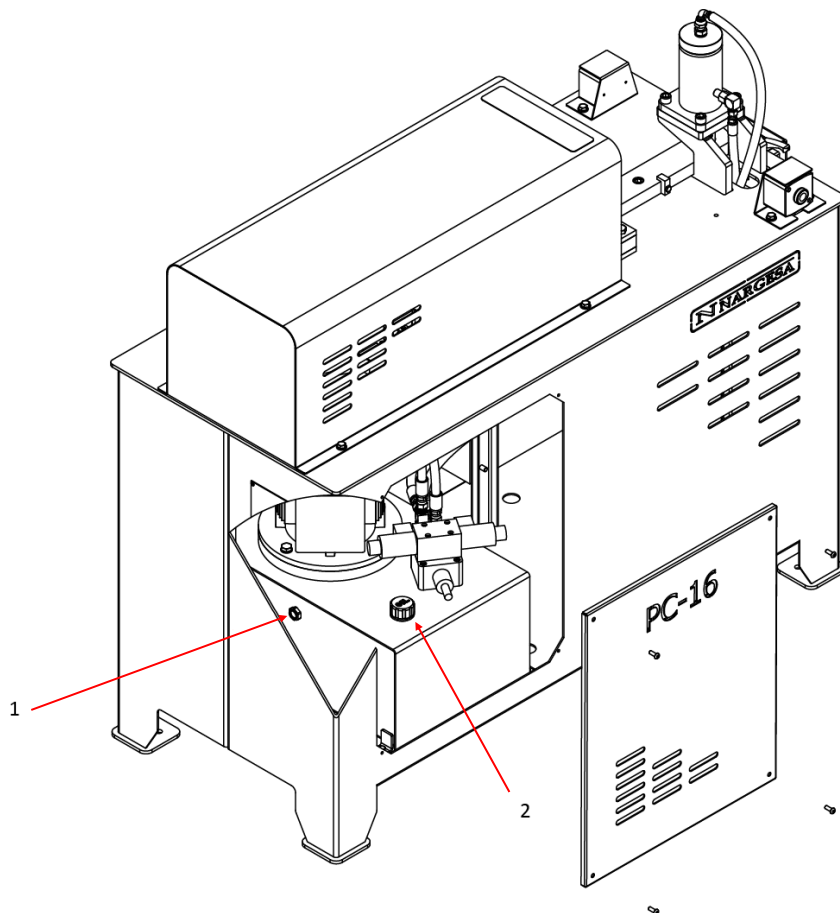
### 3. MAINTENANCE AND CLEANING

The forging machine NARGESA PC16 will require our attention in the maintenance section in the following points:

- Hydraulic Maintenance
- Lubrication
- Cleaning
- Adjusting the Guides
- Setting of brake

#### 3.1. Hydraulic maintenance

Since PC16 NARGESA forging machine has hydraulic mechanisms will its oil container won't need to be periodically checked up. For this purpose the container is provided with a sightglass (1) that allows us to observe the oil level. The machine must be always stopped in order to checkup the level..

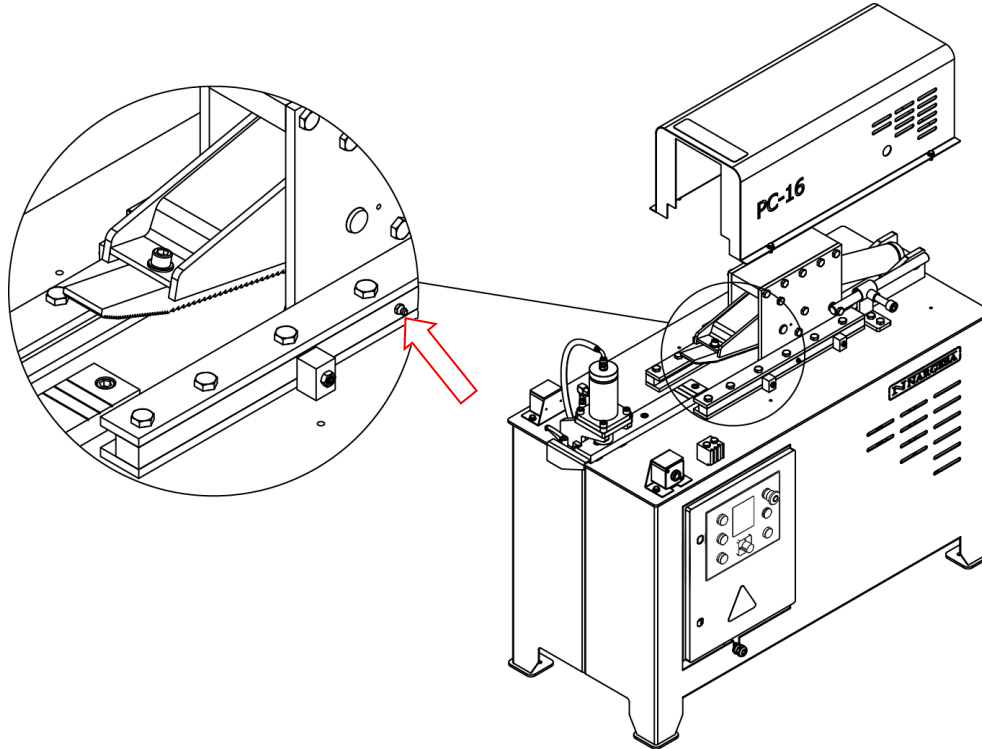


In the event that the level is low, it will be filled with hydraulic oil HM 68 (2) until the oil is visible through the peephole (1) (about half of the sight glass). Level reviews are recommended to be done at least 1 once every 3 months.



### 3.2. Lubrication

The wrought iron machine NARGESA PC16 incorporates guides where the slide zipper assembly slide should be greased slides. The frequency of lubrication depends on the frequency of use, it should be greased at least every 80 hours of operation.

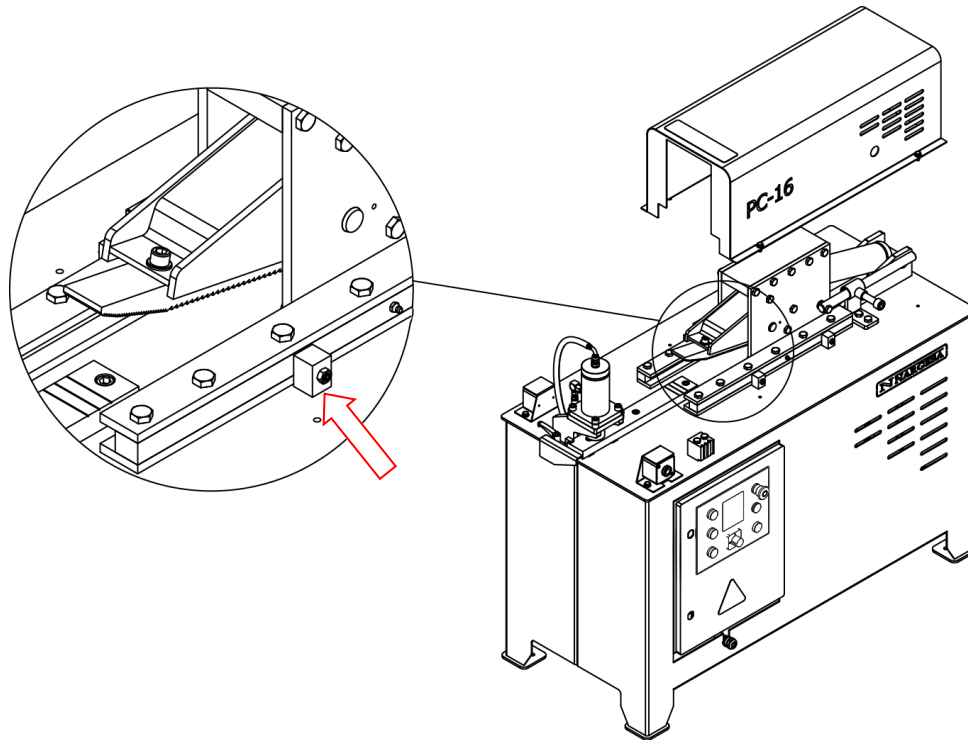


### 3.3. Cleaning maintenance

Due to normal use of the forging machine NARGESA PC16 metal waste (such slag, etc..) is generated and this may affect the well performance of it. Therefore it is recommended to clean the machine, especially in the area of the guides at the end of each working day.

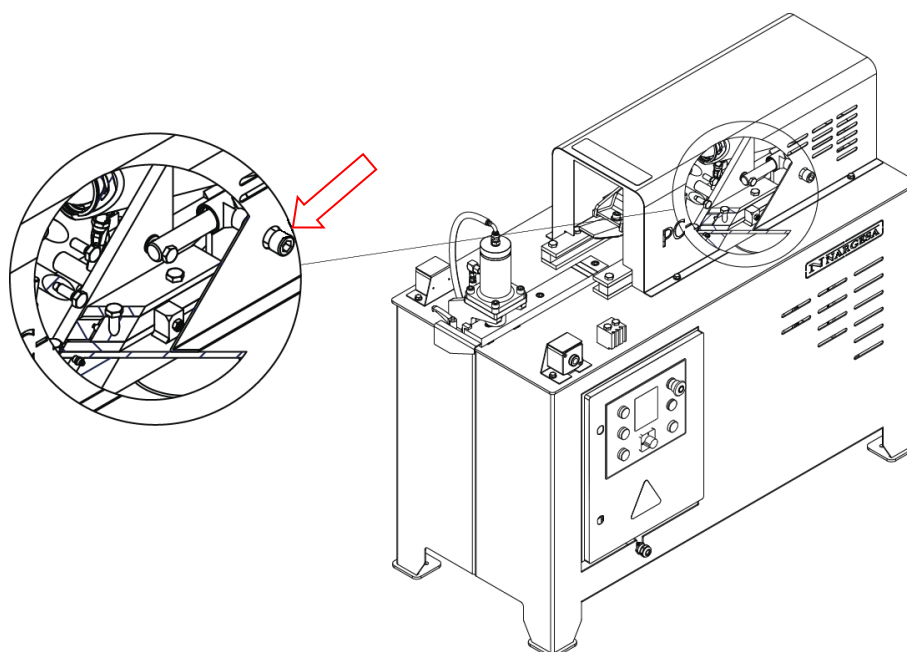
### 3.4. Adjustment of guides

Due to normal use of the forging machine NARGESA PC16 guides may be out of adjustment. In order to adjust them it is required to act on the adjustment screws on the sides of the guides. This adjustment must be carried out carefully and at both sides equally, otherwise a poor fit could cause malfunction thereof.



### 3.5. Regulation of brake

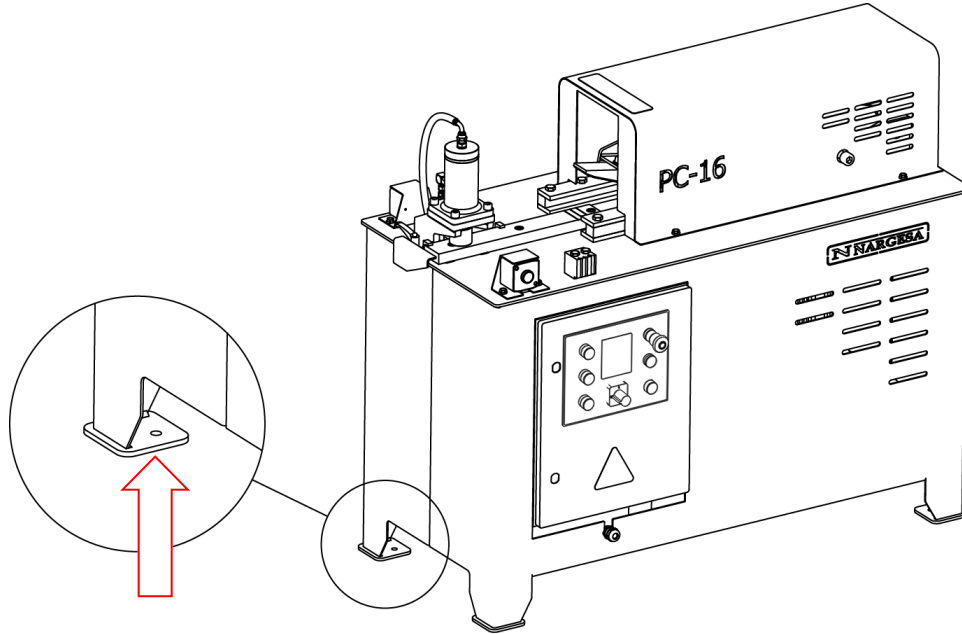
For optimum operation of the forging machine NARGESA PC16, it incorporates a braking system which allows us to control the speed of advance of the zipper. This device comes already graduated and it is advisable not handle it. If it is necessary to adjust the guides, it is recommended also checking up the brake as well, because due to the new set of the guides it is possible that they tend to over brake. The brake control is done via the bolt on top of one of the guides, as it is shown in the picture below, and its regulation can be performed with the help of an allen key number 14, without removing the back cover.



#### 4. INSTALLMEN AND SATRT UP

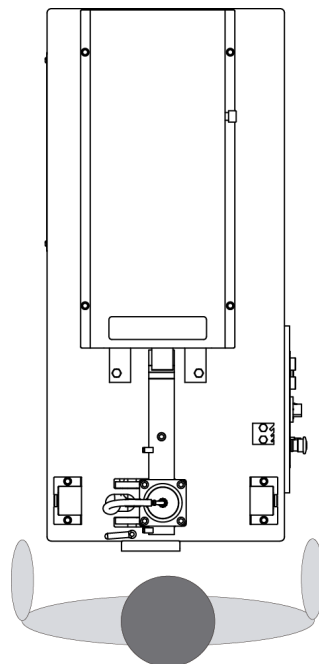
##### 4.1. Location of the machine

The forging machine NARGESA PC16 will be placed on a flat surface so it can be levelled. It can be clamped to the ground if desired through the holes made on its base for that purpose.



##### 4.2. Working site

In order to use the forging machine NARGESA PC16 it is essential to have enough space to work at the front of it (as it is shown in the drawing) and also to have access to its side part to carry out maintenance on the machine.



### 4.3. Admissible outer conditions

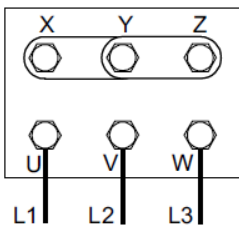
The working conditions of the machine would range between +5 ° C and +50 ° C and the maximum continuous temperature +45°C (24 hours)

The condition of humidity ranges between 30% and 90% without condensation.

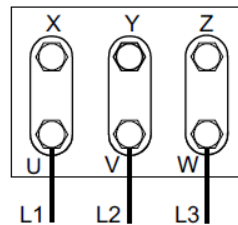
### 4.4. Electrical connections

The machine NARGESA PC16 is designed to be connected to an outlet 230/400 volt three phase 50/60 Hz.

When connecting make sure that the electric motor rotates in the correct direction (the direction is indicated by the sticker placed on the motor). In case you it doesn't go in the right direction, turn one of the input phases.



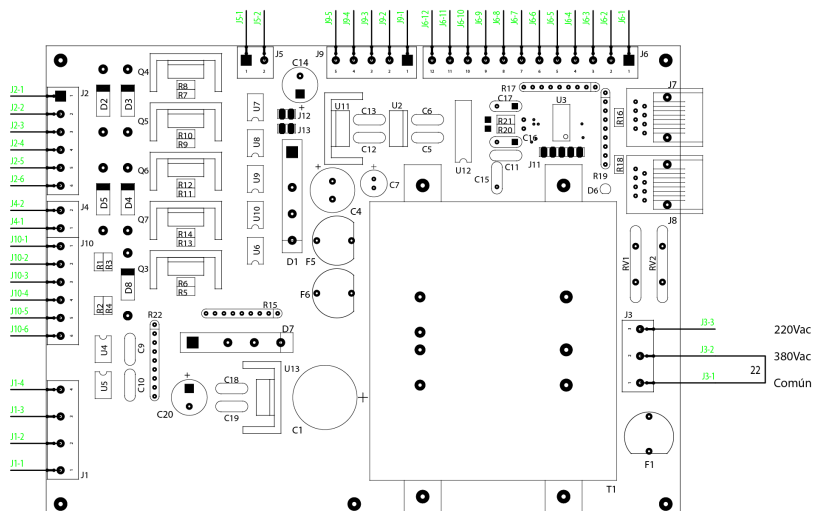
Star picture  
(default)  
For 400V



Triangle picture  
For voltage 230V

**NOTE: If voltage changes it will be necessary to change the protection of the electric motor according to the following table:**

TENSION	AMPERE RATING
230 V	7 - 10 A
400 V	4 - 6 A



## 5. OPERATION MANUAL

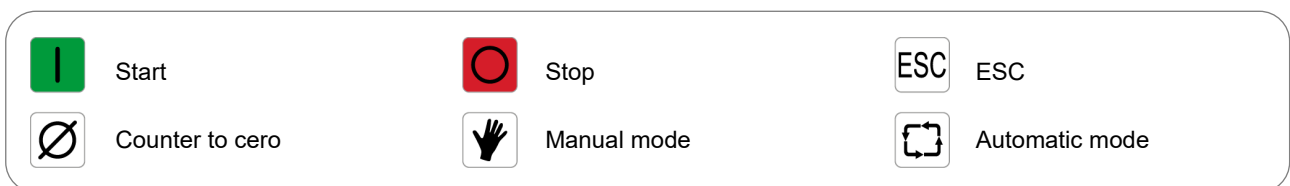
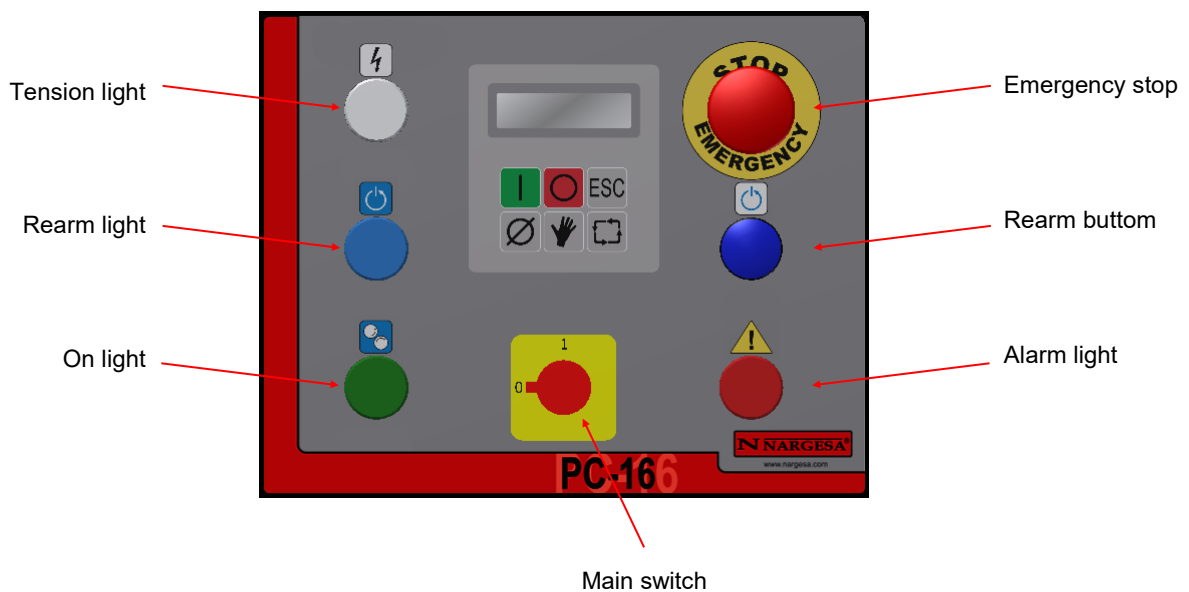
The PC16 NARGESA forging machine has 2 modes:

- Manual mode
- Automatic mode

Before explaining the operation modes we'll explain the different components and features of the forging machine NARGESA PC16.

### 5.1. Description of the control panel

On the side of the forging machine PC16 NARGESA there is a cabinet where you can identify the various controls of the machine. These controls are located in the following picture.



### 5.2. Start up

To start up the forging machine NARGESA PC16 it will need to be connected to a power source. Once it is connected, we will switch on the main switch, which will illuminate both the strain gauge pilot and pilot alarm indicator. Unlock the emergency stop if it is blocked press the rearming button. At this time the alarm indicator light goes off.

Then we'll press the ON button (if it is the first time you connect the machine, checkup the direction of motor rotation guided by the sticker placed on it) so the gear indicator light will illuminate, indicating that the machine is ready for performance.

### 5.3. Setting up material

Before making the spiral tip is necessary to perform an operation to set up the material that are to work with.

Since the spiral tip is a forging operation, we take for granted that the material will be red hot prior to deformation.

To get a correct tip snail, we need to deform the material before placing in the machine, you will make a small spiral start using the tool on the side of the machine, called "Starting Piece" identified in the section 1.3 of the manual. This is a small fold beginning 3 ÷ 4 mm in the direction of the spiral.

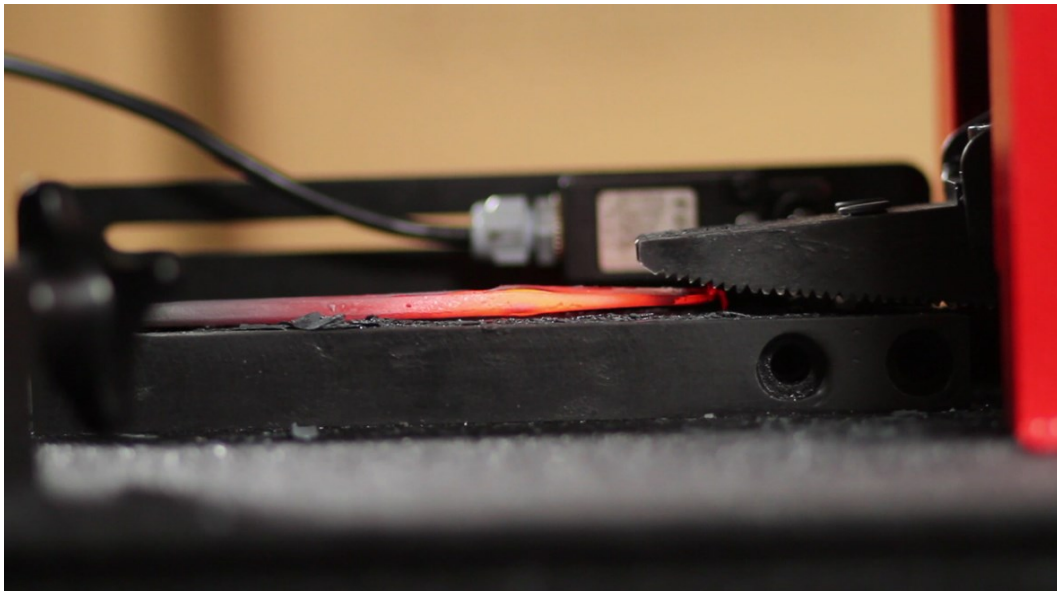
This part consists of several slots of different widths which allow us to bend the tip of the material to which the beginning of the spiral is desired.

### 5.4. Sequence of performance

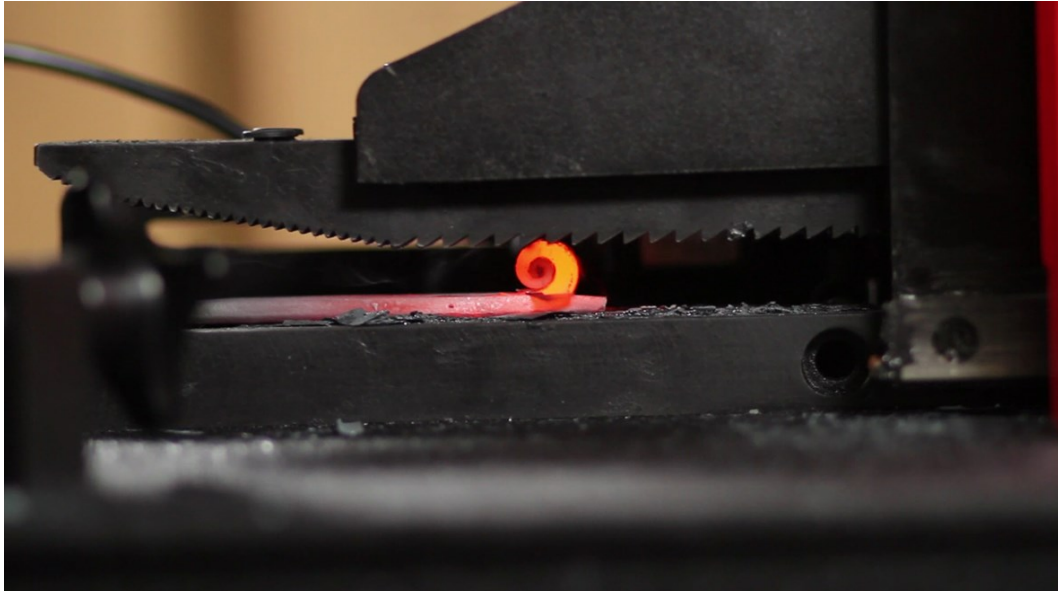
The operating sequence of the machine forging NARGESA PC16 starts at the moment you pressed both operating controls together on the sides of the machine. If we keep only driven one of the buttons, the machine does not respond to commands.

Once the sequence is started, first clamping cylinder descends which we fixed the material into the proper position. Then it will start the lowering and advancing of the zipper to perform spiral tip.

In the next picture we can see the time at which the fastener contacts the workpiece to be rolled.

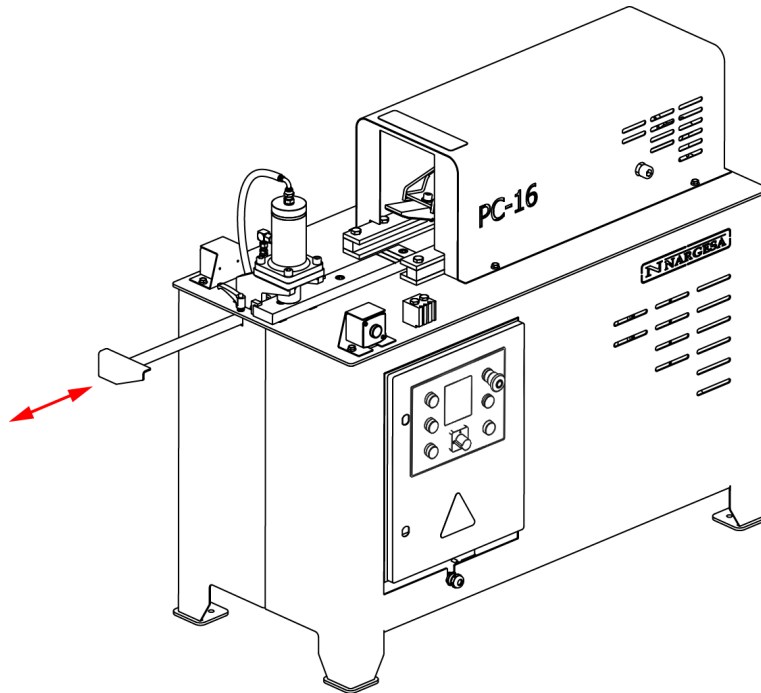


In this picture we can see how the material is rolled to deform while the zipper moves




After reaching the final position of the zipper, it is lifted, the material is released and goes back to the start point. This maneuver depends on the mode of operation used.

To ease up the work, the machine has an adjustable front bumper that allows us to support the material on it in case of long pieces.



### 5.5. Manual mode


The operating Manual mode is used to grade the final position of the zipper that will perform the spiral tip.

In order to select the Manual mode of operation we press the key located in the control panel 

The Manual mode functions in such way that when we maintain activated the operating controls while the machine starts moving forward, if we release the controls it stops maintaining the position and direction of movement. When the rack reaches the front limit actuates the limit, it stops.

### 5.6. Automatic mode

The Automatic mode or continuous mode is the working operation of the machine you will use in their usual production.

In order to select the Automatic mode of operation we press the key located in the control panel 

A message will show up on screen: CHANGE TO AUTOMATIC? pressing again to Automatic key, the machine will start on this performance mode.

The Automatic mode functions to maintain activated while operating controls while the machine starts moving forward to the final displacement, at raising the zipper it starts moving backward, releasing the workpiece held by the material held by the fastening cylinder, the return movement is stopped when the zipper reaches the rest position.

If during the progress we release the controls, the machine starts automatically the backward movement and then it is not possible to start the forward motion again.

**NOTE: You can see the operation of the machine in the product section of our website:  
[www.narges.com](http://www.narges.com) or through our YouTube channel at this link:  
<http://www.youtube.com/watch?v=YwBRkTaldTE>**



## 6. POSSIBLE FAULTS

### 6.1 Electrical faults

Due to the daily use of the forging machine PC16 NARGESA, anomalous situations may arise which we try to describe below in order to facilitate the use and repair in any case

Fault	Cause	Solution
The control panel does not light up	No power supply	Make sure the machine is properly connected to power supply
	Some phase power is faulty	Make sure we get the three phase tension
	Maneuver Thermal protection is disabled	Reset the circuit breaker of the maneuver
	Protection fuse is blown	Replace the fuse
El Motor eléctrico no se pone en marcha	Thermal motor protection is disabled	Reset motor protection
	One power phase is faulty	Make sure that we get the three phase tension
	Emergency stop is activated	Disengage the emergency stop and reset the machine
	Failure of the motor contact.	Contact our technical assistance

**NOTE: In case of repeated anomalies please contact technical support NARGESA.**

**6.2. Mechanical faults**

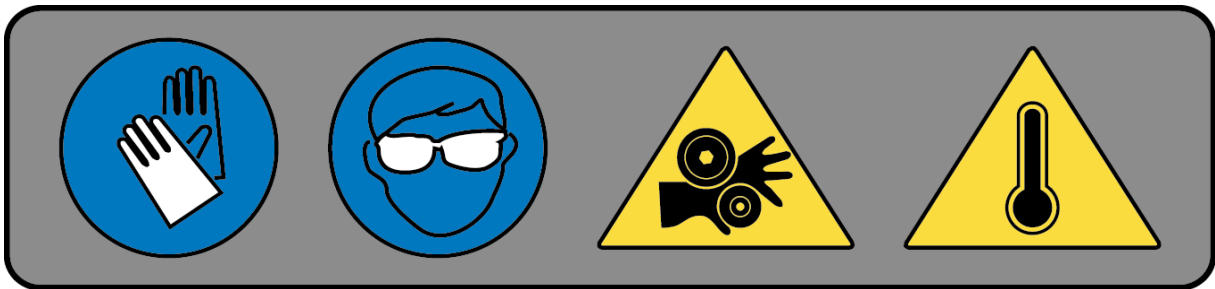
We refer to this chart once we take for granted there is no electrical anomaly.

Fault	Cause	Solution
The zipper doesn't go forward / backwards	The solenoid is not activated	We found that manually maneuver is performed by pressing the center of the coil. If so please contact technical support NARGESA
		We found that manually maneuver is performed by pressing the center of the coil. If it does not contact the technical service NARGESA
The zipper moves back / forth bouncing	Lack of lubrication of the guides	Proceed to lubricate the machine as described in section 3.2
	The guides move	Adjust the guides as indicated in paragraph 3.4.
	The brake works too strong	Loosen the brake as shown in section 3.5.

## 7. WARNINGS

- Do not handle any part of the machine while it's running.
- Do not use the machine to any other purposes but the ones described in this manual.
- Use gloves when handling components of the machine for the work processes.
- Wear homologated safety goggles and protective boots.
- Hold up the base material.
- Do not work without the protections the machine is equipped with.

**In case of accident by negligence of the operator, for not following the safety and operating standards set out in this manual, NARGESA SL will not take any responsibility.**



## **Thecnical annex**

### Hot wrought iron machine PC16

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List of parts

Material cylinder

Cylinder

Hydraulic group

Electric box · THREEPHASE MACHINE

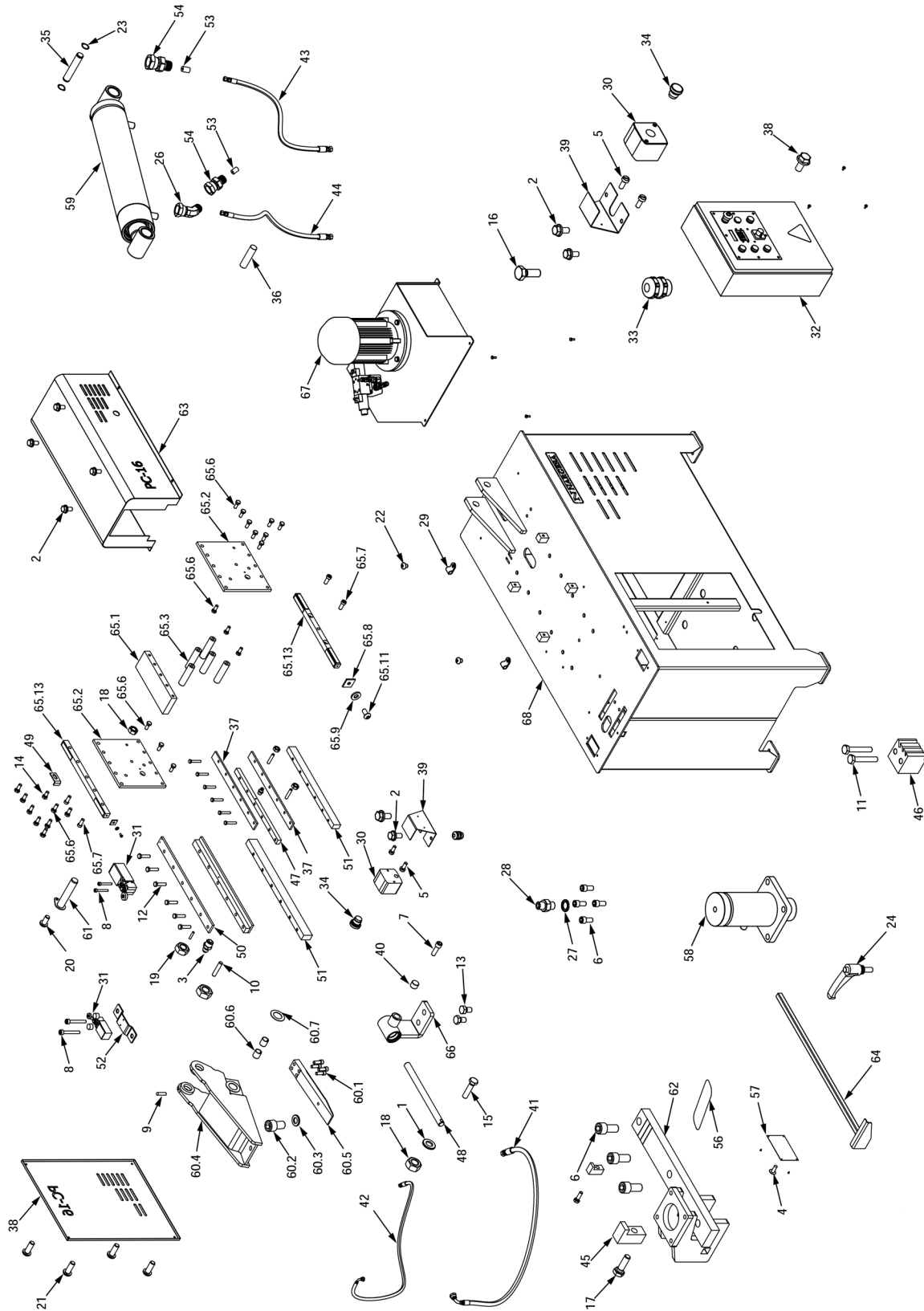
Electric map · THREEPHASE MACHINE






















Electric box · SINGLEPHASE MACHINE






















Electric map · SINGLEPHASE MACHINE

Hydraulic map

A1. List of parts




















Nº ORDEN	DIBUJO	DESCRIPCION	Nº PLANO	PIEZAS POR MAQUINA
1		ARANDELA DIN 125 B M12	020-D125B-M12	1
2		TORNILLO HEXAGONAL DIN 6921 M8x16	020-D6921-M8X16	8
3		ENGRASADOR DIN 71412 M8 RECTO	020-D71412-00002	2
4		REMACHE DE CLAVO DIN 7337 De Al Ø3x8	020-D7337-3X8	4
5		TORNILLO DIN 84 M4x10	020-D84-M4X10	4
6		TORNILLO ALLEN DIN 912 M12X25	020-D912-M12X25	7
7		TONILLO ALLEN DIN 912 M18X60	020-D912-M18X60	1
8		TORNILLO ALLEN DIN 912 M4X30 PAVONADO	020-D912-M4X30	4
9		ESPARRAGO ALLEN DIN 913 M5X10	020-D913-M5X10	1
10		ESPARRAGO ALLEN DIN 913 M8X40	020-D913-M8X40	4
11		TORNILLO HEXAGONAL DIN 931 M10X60	020-D931-M10X60	2
12		TORNILLO HEXAGONAL DIN 931 M12x65	020-D931-M12x65	12
13		TORNILLO HEXAGONAL DIN 933 M12X20	020-D933-M12X20	2
14		TORNILLO HEXAGONAL DIN 933 M12X25	020-D933-M12X25	1
15		TORNILLO HEXAGONAL DIN 933 M12X50	020-D933-M12X50	1
16		TORNILLO HEXAGONAL DIN 933 M6X16	020-D933-M6X16	4
17		TORNILLO HEXAGONAL DIN 933 M6X20	020-D933-M6X20	2
18		TUERCA DIN 934 M12	020-D934-M12	2
19		TUERCA DIN 934 M8	020-D934-M8	4
20		TORNILLO ALLEN ABOMBADO ISO 7380 M6X12	020-I7380-M6X12	1
21		TORNILLO ALLEN ABOMBADO ISO 7380 M6X16	020-I7380-M6X16	4

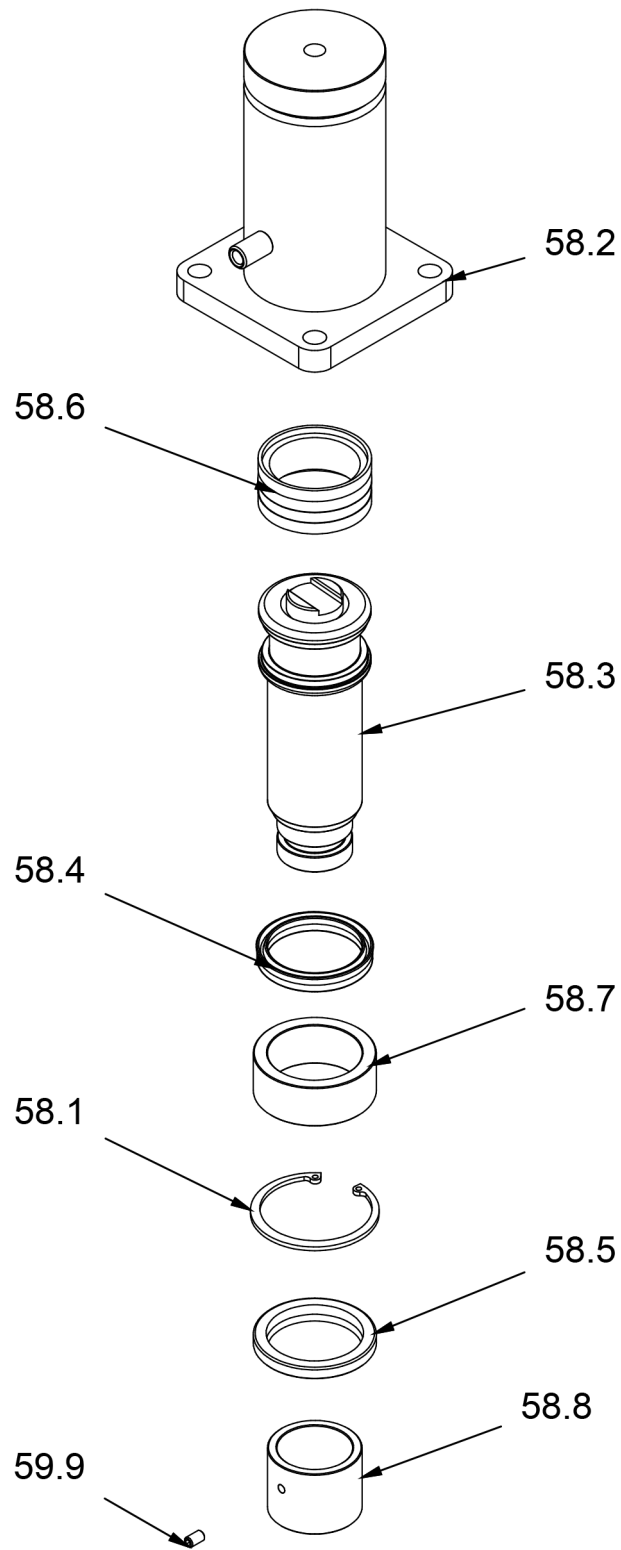
Nº ORDEN	DIBUJO	DESCRIPCION	Nº PLANO	PIEZAS POR MAQUINA
22		TORNILLO ALLEN ABOMBADO ISO 7380 M6X6	020-I7380-M6X6	2
23		CIRCLIP EJE DIN 471 Ø25	030-D471-00008	2
24		EMPUÑADURA GRADUABLE MACHO M8X20 NEGRA CON BOTON NARANJA	031-MAG-00005	1
26		CODO 45º MACHO HEMBRA 1/4"	040-CMH45-00002	1
27		JUNTA METAL GOMA 1/4"	040-JMG-00002	1
28		RACOR MACHO MACHO 1/4"	040-RMM-00002	1
29		ABRAZADERA PARA CABLE DE 6	050-ABR-00001	2
30		CAJA DE SUPERFICIE PARA BOTON	050-CSB-00001	2
31		FINAL DE CARRERA CON RUEDA FR530 NO-NC	050-FC-00003	2
32		KIT INSTALACION ELECTRICA PC 16	050-KIE-1501-002	1
33		PRENSAESTOPA M16	050-PE-00007	2
34		PULSADOR VERDE Ø22	050-PUL-00001	2
35		EJE TRASERO CILINDRO PC-16	120-15-01-00026	1
36		EJE DELANTERO CILINDRO PC- 16	120-15-01-00027	1
37		PASAMANO GUIA PC-16	120-15-01-00038	3
38		PUERTA PC-16	120-15-01-00044	1
39		SOPORTE MANDOS BIMANUAL PC-16	120-15-01-00053	2
40		TOPE NYLON FRENO PC-16	120-15-01-00063	1
41		MANGUERA HIDRAULICA 1/4" CODO 90º 1/4" TG- TG 3/8" L= 1400 mm	120-15-01-00117	1
42		MANGUERA HIDRAULICA 1/4" CODO 90º 1/4" TG- TG 3/8" L= 1400 mm	120-15-01-00115	1
43		MANGUERA HIDRAULICA 1/4" TG 1/4"-TG 3/8" L= 600 mm	120-15-01-00116	1

Nº ORDEN	DIBUJO	DESCRIPCION	Nº PLANO	PIEZAS POR MAQUINA
44		MANGUERA HIDRAULICA 1/4" TG 1/4"-TG 3/8" L= 550 mm	120-15-01-00118	1
45		TOPE LATERAL ENTRADA	120-15-01-00077	2
46		PASAMANO INICIO	120-15-01-00080	1
47		PASAMANO INTERMEDIO GUIA PC-16	120-15-01-00086	2
48		BARRA FRENO PC-16	120-15-01-00092	1
49		ACCIONAMIENTO FINAL DE CARRERA DELANTERO PC-16	120-15-01-00096	1
50		PASAMANO GUIA PC-16	120-15-01-00097	1
51		REFUERZO INFERIOR PC-16	120-15-01-00099	2
52		SOPORTE FINAL DE CARRERA DELANTERO PC-16	120-15-01-00100	1
53		CHICLE M7 D2 mm	120-15-01-00102	2
54		RACOR PORTA CHICLE PC-16	120-15-01-00104	2
56		ADVERTENCIAS PC-16	122-CAL-1501-002	1
57		PLACA CARACTERISTICAS GENERAL	122-PLC-0000-001	1
58		CONJUNTO CILINDRO MATERIAL PC-16	130-15-01-00002	1
59		CILINDRO PRINCIPAL PC-16	130-15-01-00007	1
60.1		TORNILLO ALLEN DIN 912 M12X30	020-D912-M12X30	4
60.2		TORNILLO ALLEN DIN 912 M12X20	020-D912-M12X20	1
60.3		ARANDELA DIN 125 B M12	020-D125B-M12	1
60.4		CONJUNTO ARTICULACION CREMALLERA	130-15-01-00008	1
60.5		CREMALLERA PUNTA CARACOL PC-16	120-15-01-00031	1
60.6		DOLLA PARTIDA D25XD28X30	030-DP-00046	2



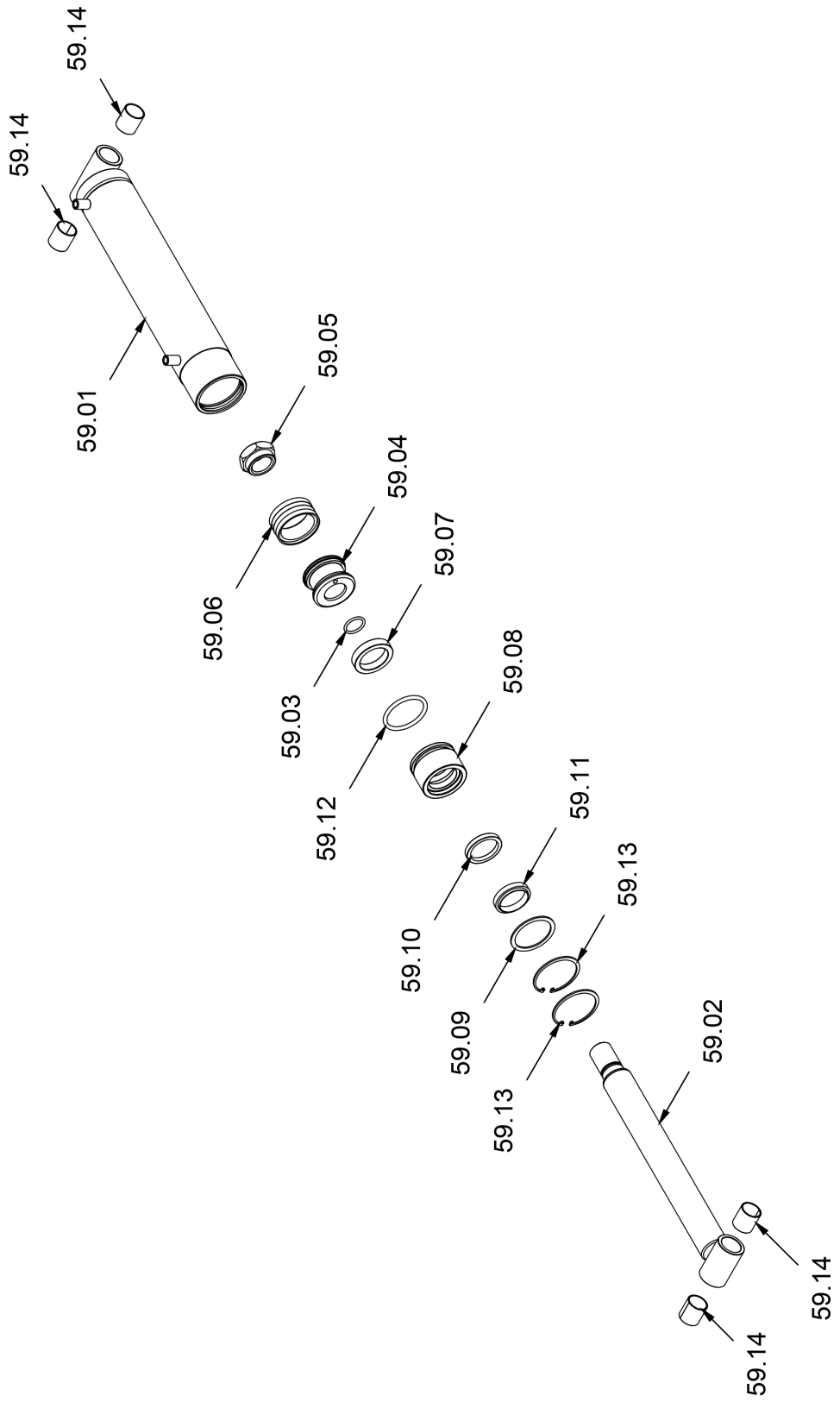
Nº ORDEN	DIBUJO	DESCRIPCION	Nº PLANO	PIEZAS POR MAQUINA
60.7		ARANDELA GRUESO D47xD25.5x1	120-15-01-00087	2
61		CONJUNTO BULON ARTICULACION CREMALLERA PC-16	130-15-01-00011	1
62		CONJUNTO SOPORTE CILINDRO MATERIAL PC-16	130-15-01-00012	1
63		CONJUNTO TAPA SUPERIOR PC- 16	130-15-01-00013	1
64		CONJUNTO APOYO TRASERO PC-16	130-15-01-00018	1
65.1		SEPARADOR SUPERIOR CARRIL GUIA PC-16	120-15-01-00033	1
65.2		LATERAL DERECHO CARRIL GUIA PC-16	120-15-01-00034	2
65.3		SEPARADOR CARRIL GUIA PC-16	120-15-01-00036	5
65.6		TORNILLO HEXAGONAL DIN 933 M12x30	020-D933-M12X30	22
65.7		TORNILLO ALLEN CABEZA REDUCIDA DIN 6912 M12X40	020-D6912-M12X40	4
65.8		RASCADOR DE GOMA GUIA PC- 16	120-15-01-00089	2
65.9		ARANDELA D15xD7x2	120-15-01-00090	2
65.11		TORNILLO ALLEN ABOMBADO ISO 7380 M6X12	020-I7380-M6X12	2
65.13		CONJUNTO CUADRADO GUIA PC- 16	130-15-01-00021	2
66		CONJUNTO FRENO PC-16	130-15-01-00020	1
67		GRUPO HIDRAULICO PC-16	130-15-01-00026	1
68		ESTRUCTURA INFERIOR PC-16	130-15-01-00025	1









A2. Material cylinder



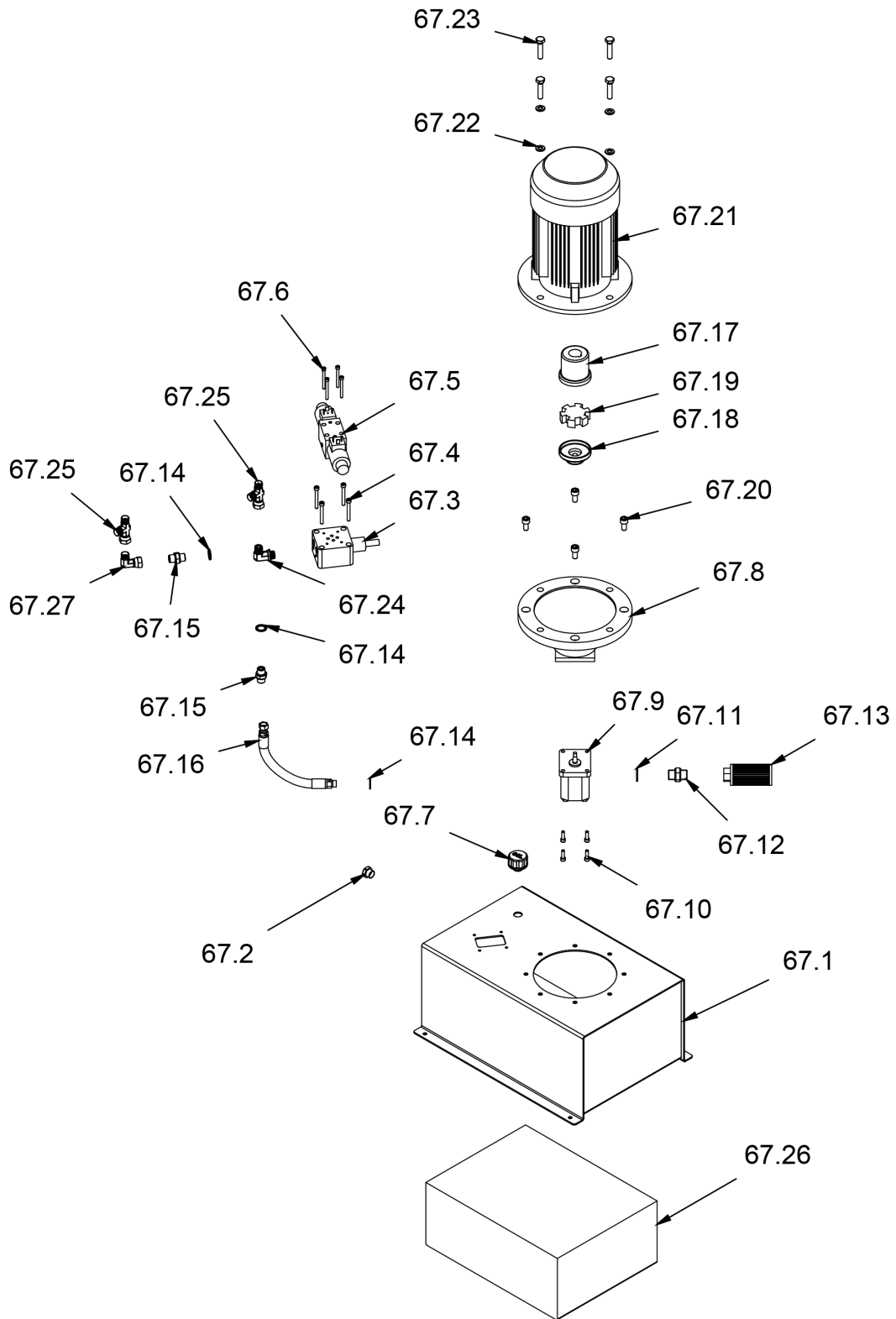
Nº ORDEN	DIBUJO	DESCRIPCION	Nº PLANO	PIEZAS POR MAQUINA
58.1		CIRCLIP AGUJERO DIN 472 D65X2.5	030-D472-00005	1
58.2		CONJUNTO CAMISA CILINDRO FIJACION MATERIAL PC-16	130-15-01-00003	1
58.3		CONJUNTO VASTAGO CILINDRO FIJACION MATERIAL PC-16	130-15-01-00004	1
58.4		COLLARIN TIPO BA D50XD62X9.5	040-BA-00008	1
58.5		RASCADOR D50XD65X5/8	040-RAS-00005	1
58.6		JUNTA DPS D60XD48X14X28	040-DPS-00005	1
58.7		DOLLA BRONCE CILINDRO FIJACION MATERIAL	120-15-01-00016	1
58.8		PIEZA EMPUJE CILINDRO FIJACION MATERIAL	120-15-01-00017	1
58.9		ESPARRAGO ALLEN DIN 913 M6x10	020-D913-M6X10	1





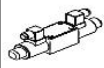














A3. Cylinder










N° ORDEN	DIBUJO	DESCRIPCION	N° PLANO	PIEZAS POR MAQUINA
59.1		CONJUNTO CAMISA CILINDRO PC-16	130-15-01-00005	1
59.2		CONJUNTO SOLDADO VASTAGO CILINDRO PC-16	130-15-01-00006	1
59.3		JUNTA TORICA D24X3 90 Shore	040-JT-00010	1
59.4		DOLLA CILINDRO FIJACION MATERIAL PC-16	120-15-01-00015	1
59.5		TUERCA POSTERIOR	120-08-01-00001	1
59.6		JUNTA DPS D60XD48X14X28	040-DPS-00005	1
59.7		SEPARADOR CILINDRO PC-16	120-15-01-00023	1
59.8		DOLLA BRONCE CILINDRO PC-16	120-15-01-00024	1
59.9		ARANDELA GRUESO CILINDRO PC-16	120-15-01-00025	1
59.10		COLLARIN BA D40XD50X7.3	040-BA-00005	1
59.11		RASCADOR 40X50X7/10	040-RAS-00003	1
59.12		JUNTA TORICA D53X5 90 Shore	040-JT-00016	1
59.13		CIRCLIP AGUJERO DIN 472 D63X2	030-D472-00006	2
59.14		DOLLA PARTIDA D25XD28X30	030-DP-00046	4

**A4. Hydraulic group**

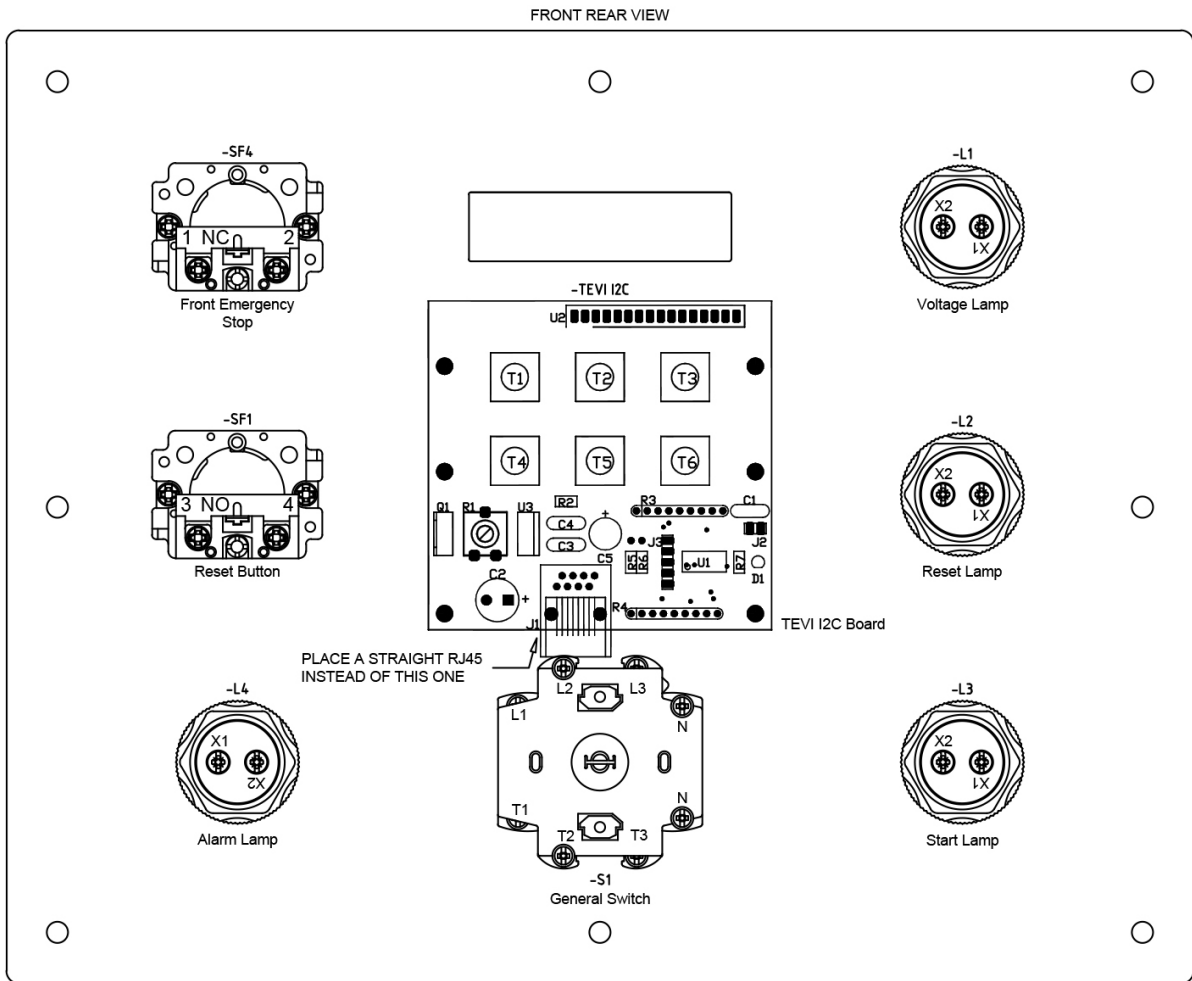


Nº ORDEN	DIBUJO	DESCRIPCION	Nº PLANO	PIEZAS POR MAQUINA
67.1		DEPOSITO HIDRAULICO PC-16	130-15-01-00027	1
67.2		NIVEL DE ACEITE 3/8"	040-NA-00001	1
67.3		VALVULA LIMITADORA PRESION 5RLL02P2F/03 -T210 TARADA A 210 Bares	040-VLP-00002	1
67.4		TORNILLO ALLEN DIN 912 M6X50	020-D912-M6X50	4
67.5		ELECTROVALVULA DOBLE BOBINA CON ALOJAMIENTO DETECTOR M5x0.5 5EVP3D1C02D24-NAG6	040-ELV-00009	1
67.6		TORNILLO ALLEN DIN 912 M5x50	020-D912-M5X50	4
67.7		TAPON LLENADO DE 1/2' DOBLE RESPIRADERO Y FILTRO	040-TLL-00003	1
67.8		CAMPANA ACOPLAMIENTO BOMBA TIPO LO MOTOR 3/4/5.5 C.V.	040-CA-00002	1
67.9		BOMBA HIDRAULICA DE ALUMINIO DE 7.5 L 1LO7.5DE10R	040-BH-00002	1
67.10		TORNILLO ALLEN DIN 912 M6X20	020-D912-M6X20	4
67.11		JUNTA METAL GOMA 1/2"	040-JMG-00001	1
67.12		RACOR MACHO MACHO 1/2"	040-RMM-00004	1
67.13		FILTRO DE ASPIRACION DE 1/2' REF 2FA15R125N	040-FL-00002	1
67.14		JUNTA METAL GOMA 3/8"	040-JMG-00004	3
67.15		RACOR MACHO MACHO 3/8"	040-RMM-00003	2
67.16		MANGUERA HIDRAULICA 3/8" M-H 3/8" L=450 mm	120-15-01-00070	1
67.17		ACOPLAMIENTO LADO MOTOR 3/4 / 5.5Cv	040-AE-00007	1
67.18		ACOPLAMIENTO LADO BOMBA LO PARA MOTOR 3/4 / 5.5 Cv	040-AE-00008	1
67.19		ESTRELLA ACOPLAMIENTO PARA MOTOR 3/4 / 5.5 Cv	040-AE-00009	1

Nº ORDEN	DIBUJO	DESCRIPCION	Nº PLANO	PIEZAS POR MAQUINA
67.20		TORNILLO ALLEN DIN 912 M10X20	020-D912-M10X20	4
67.21		MOTOR ELECTRICO 2.2Kw 1500RPM 50-60Hz B5 220/380V	050-ME-00003	1
67.22		ARANDELA DIN 125 B M10	020-D125B-M10	4
67.23		TORNILLO HEXAGONAL DIN 933 M10X45	020-D933-M10X45	4
67.24		CODO ORIENTABLE MACHO MACHO 3/8"	040-CGMM-00002	1
67.25		FIGURA 'T' GIRATORIA LATERAL 3/8"	040-TGL-00001	2
67.26		ACEITE HM68 26 LITROS	120-15-01-00109	1
67.27		CODO 90º MACHO HEMBRA 3/8"	040-CMH-00002	1

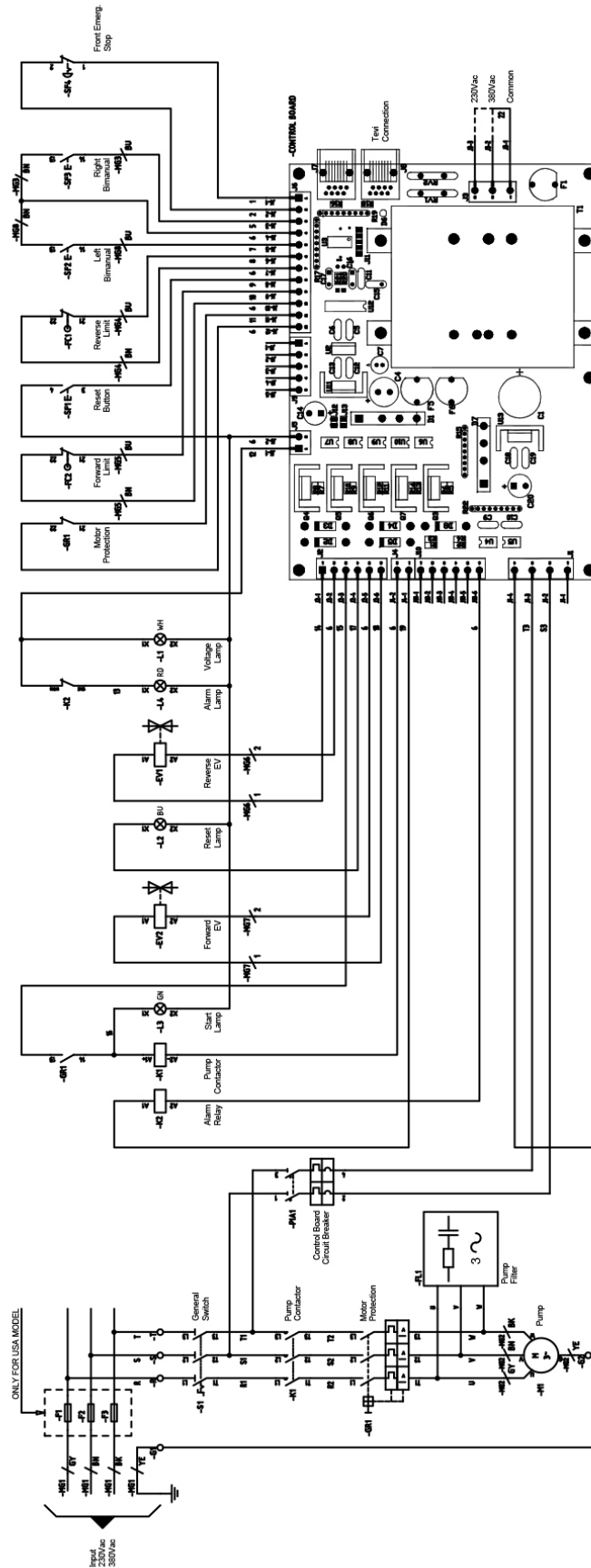


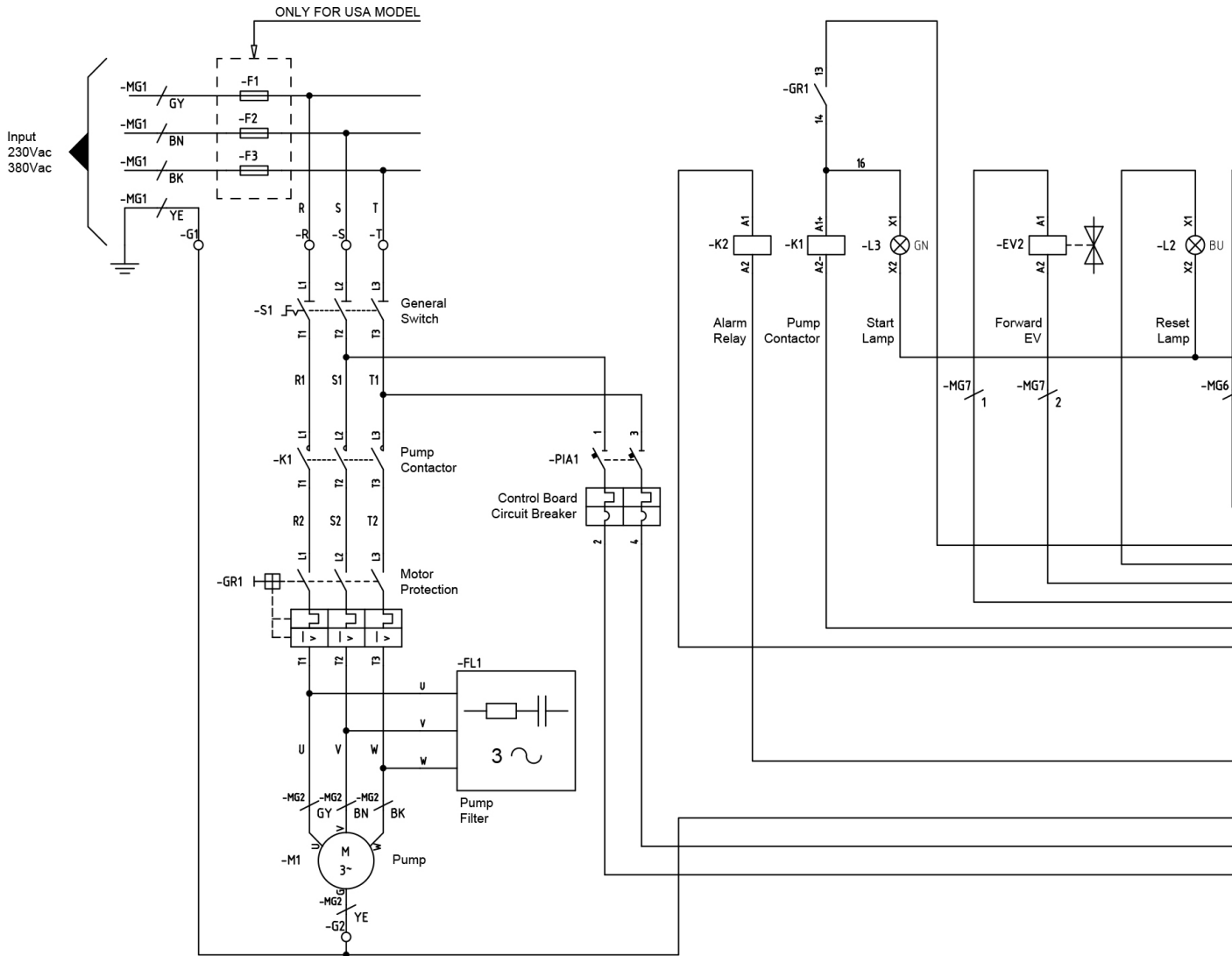
A5. Electric box · THREEPHASE MACHIN



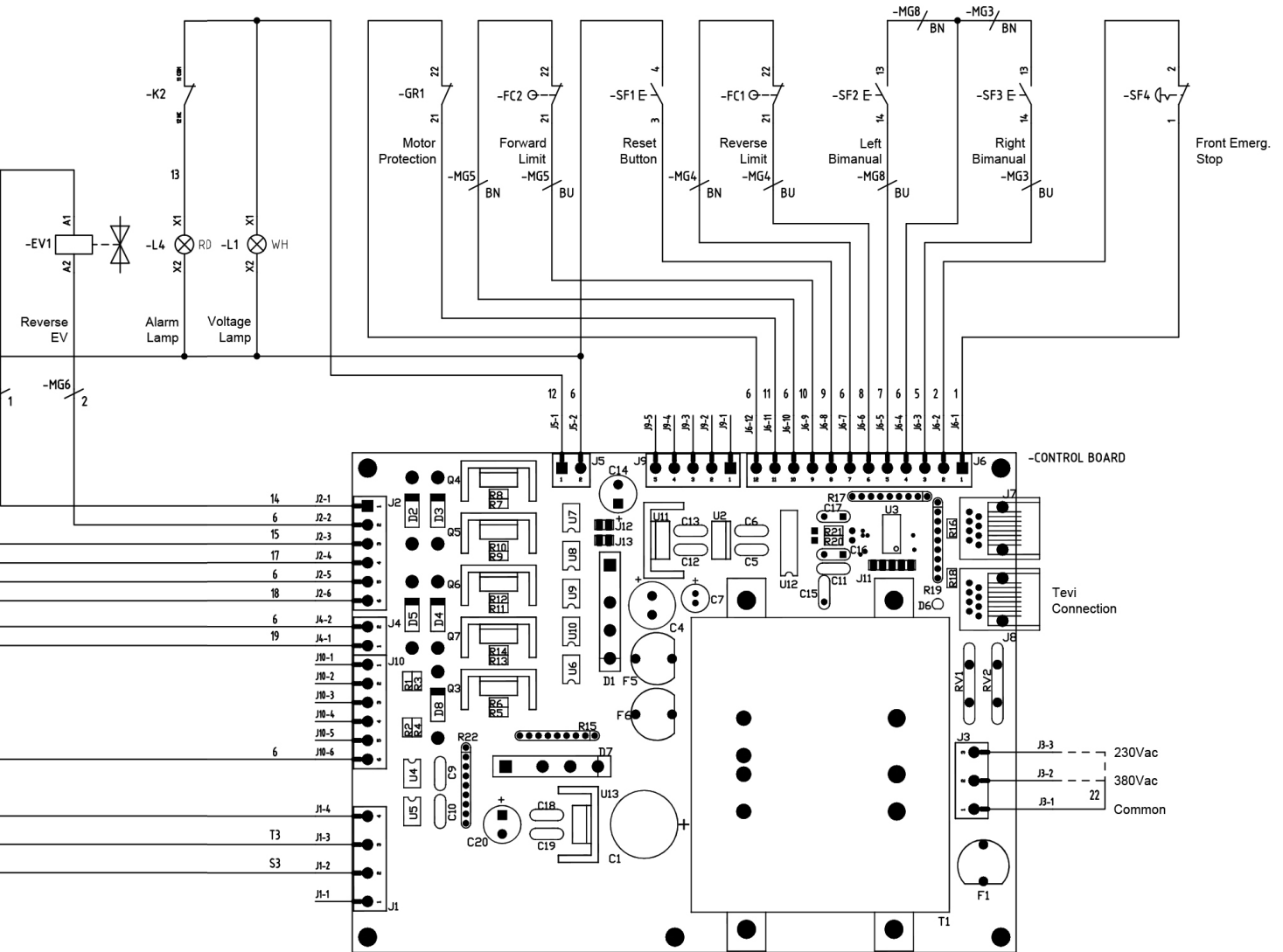


A6. Electric map · THREEPHASE MACHIN

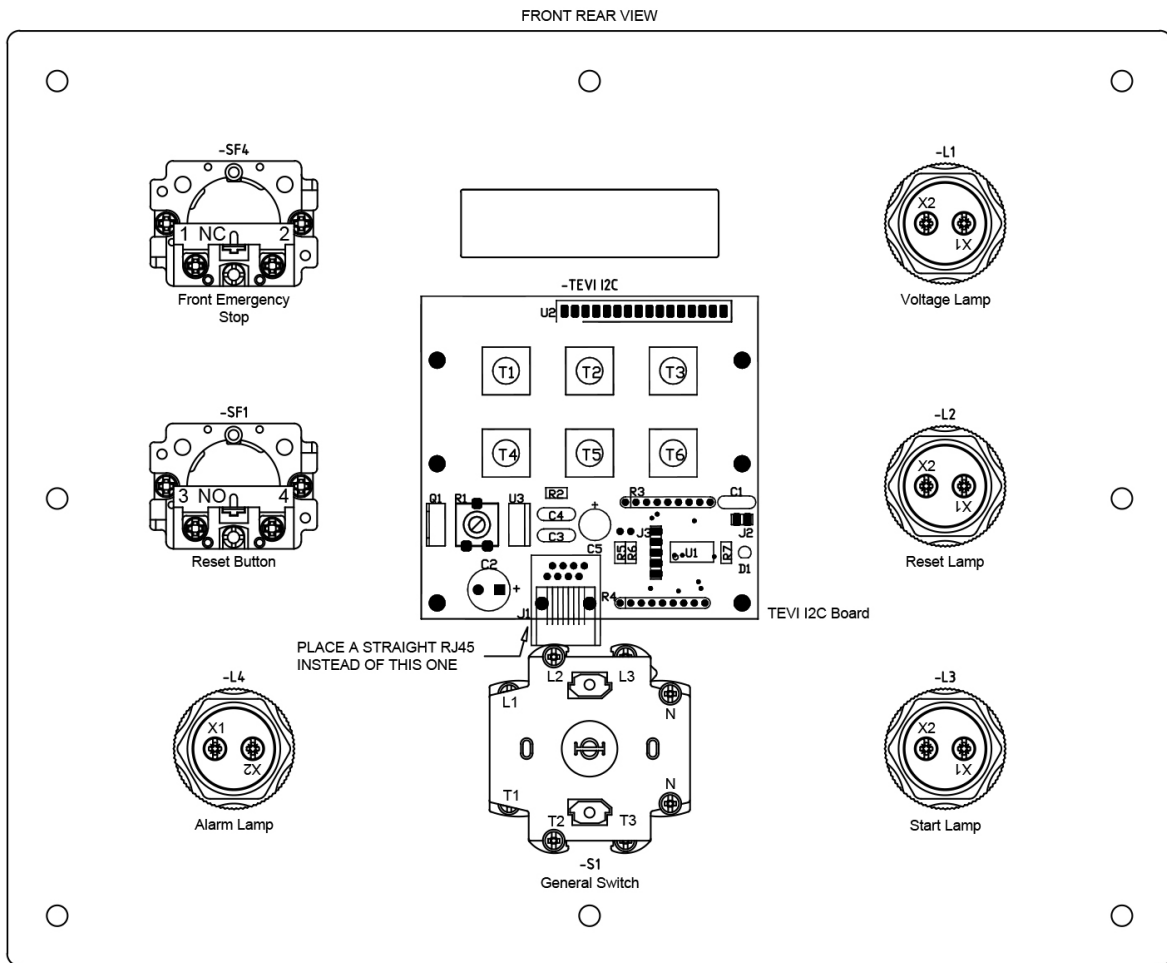


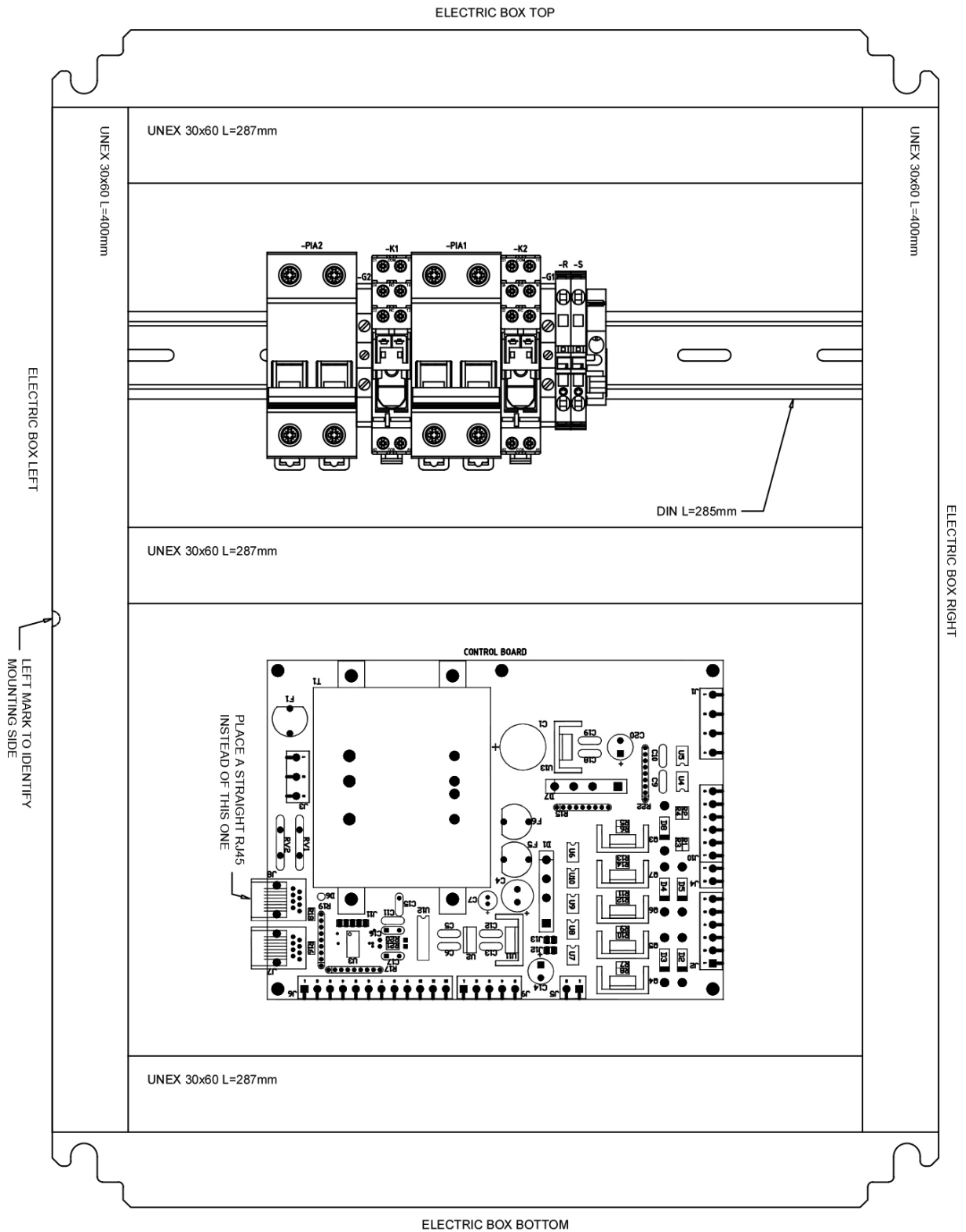


END HOT WROUGHT IRON MACHINE PC16

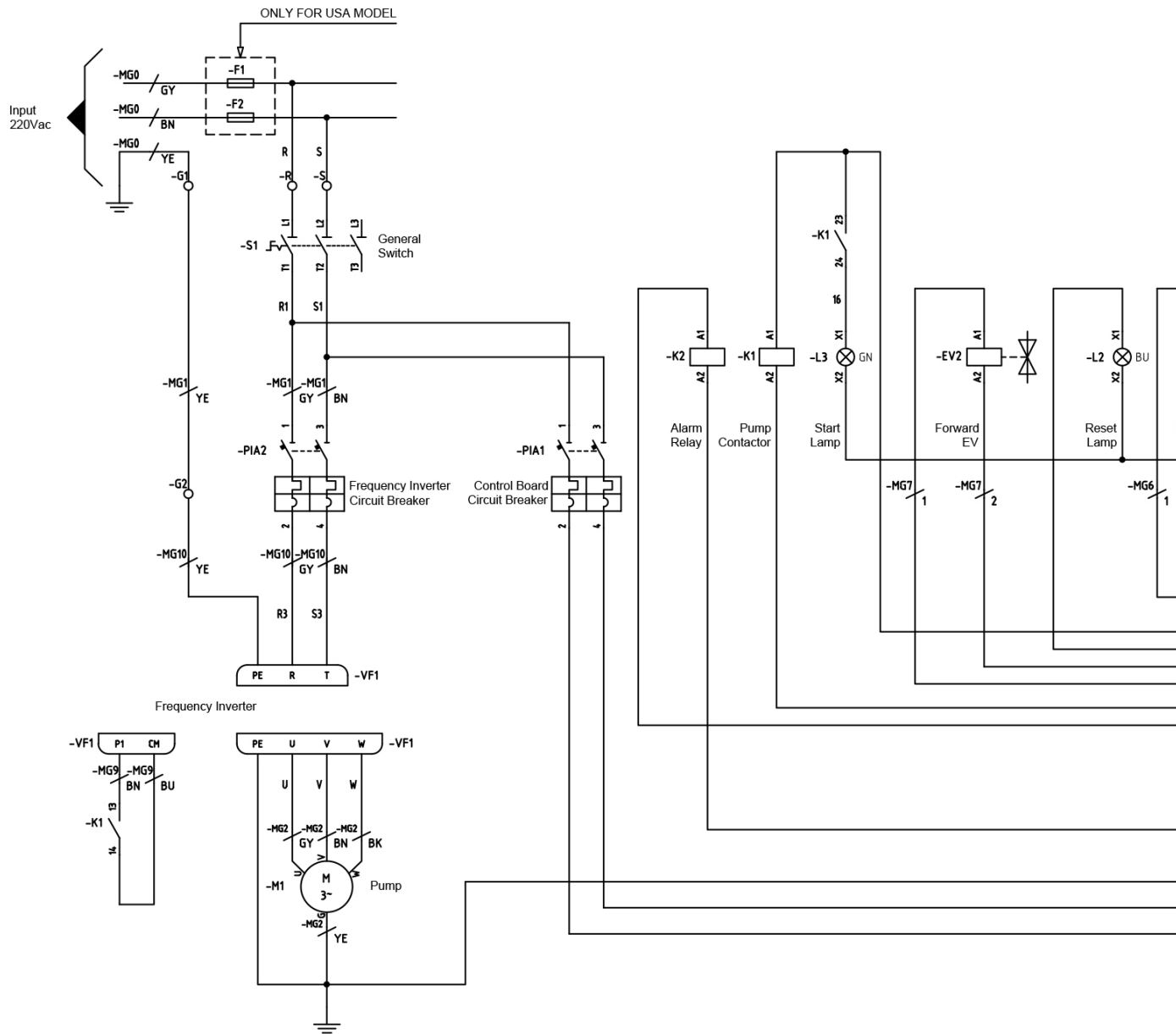


A7. Electric box · SINGLEPHASE MACHINE



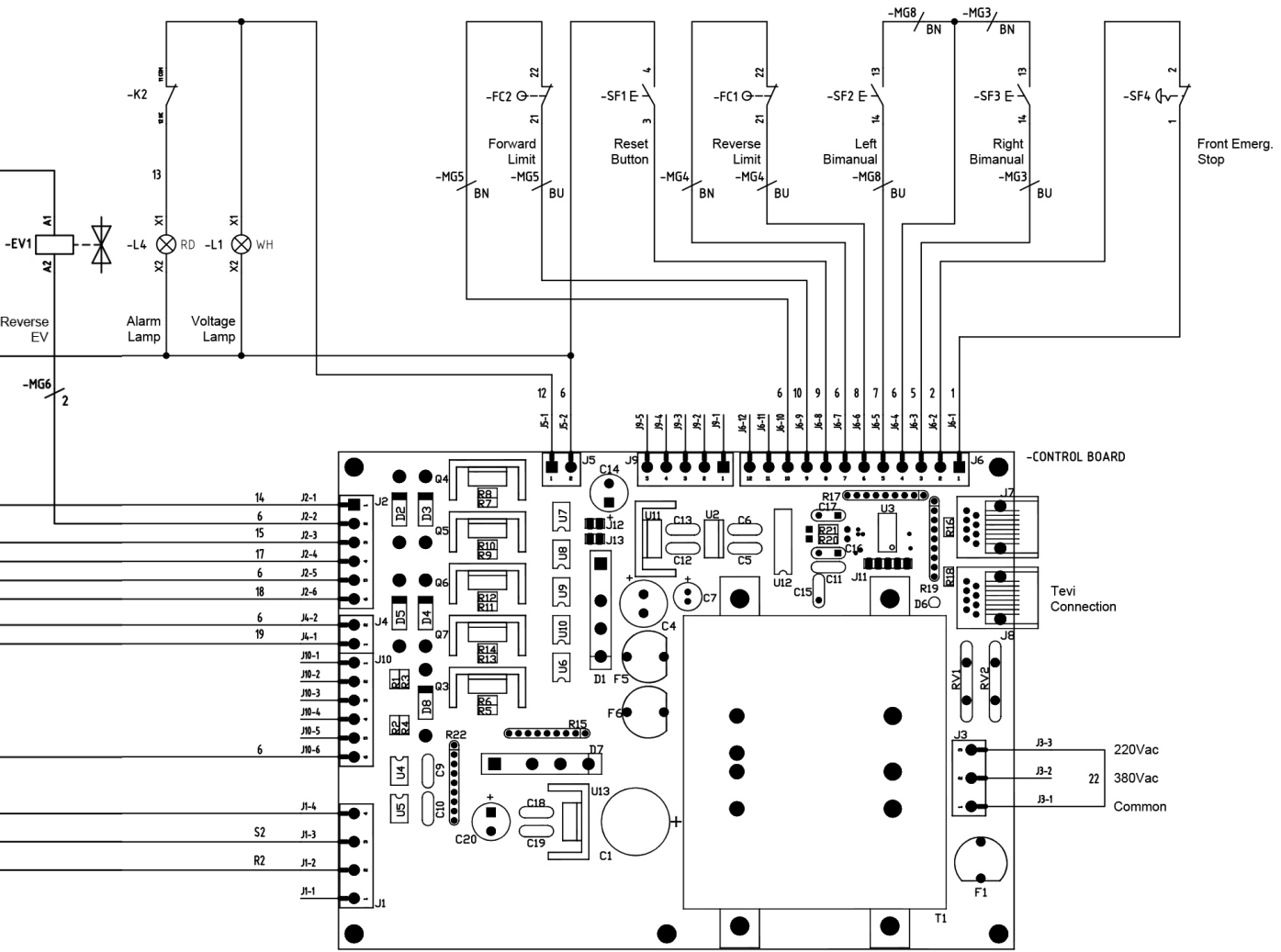


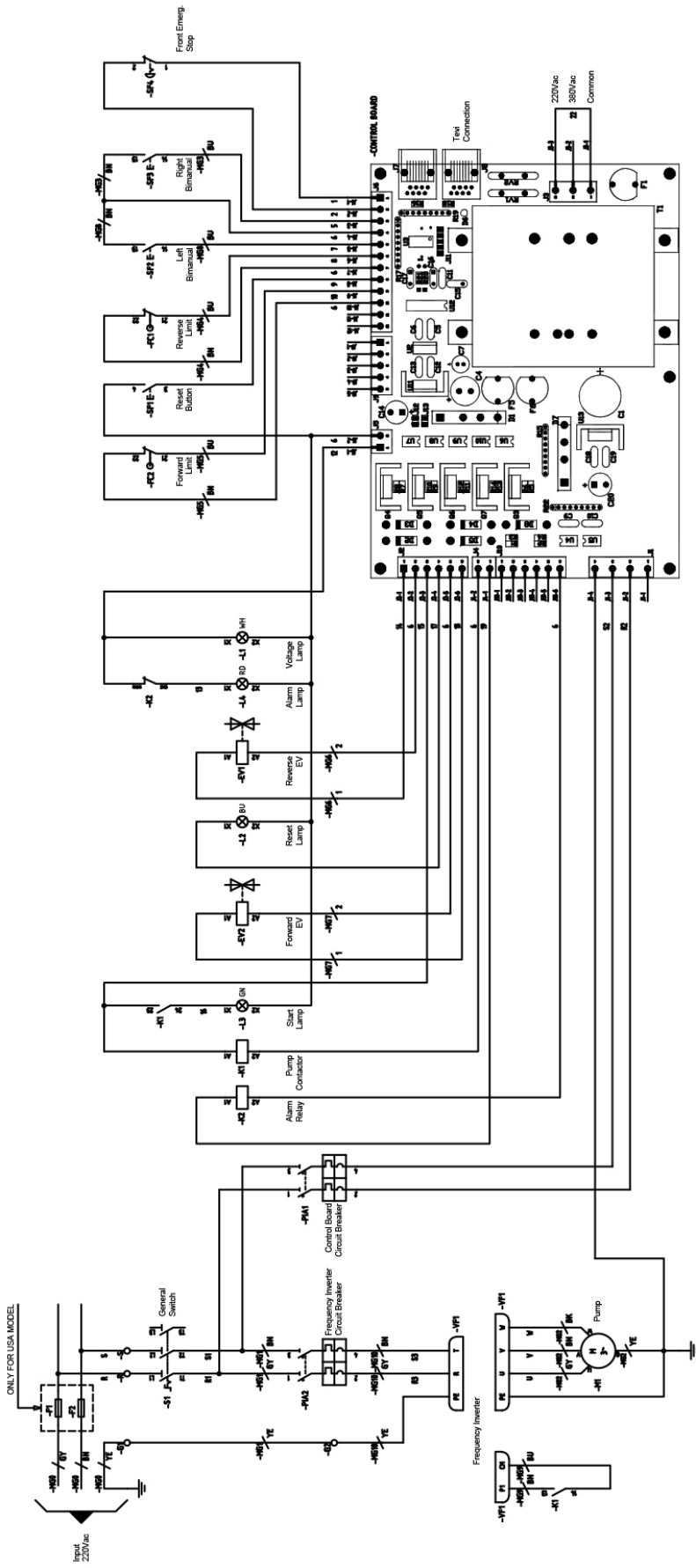
A8. Electric map · SINGLEPHASE MACHINE



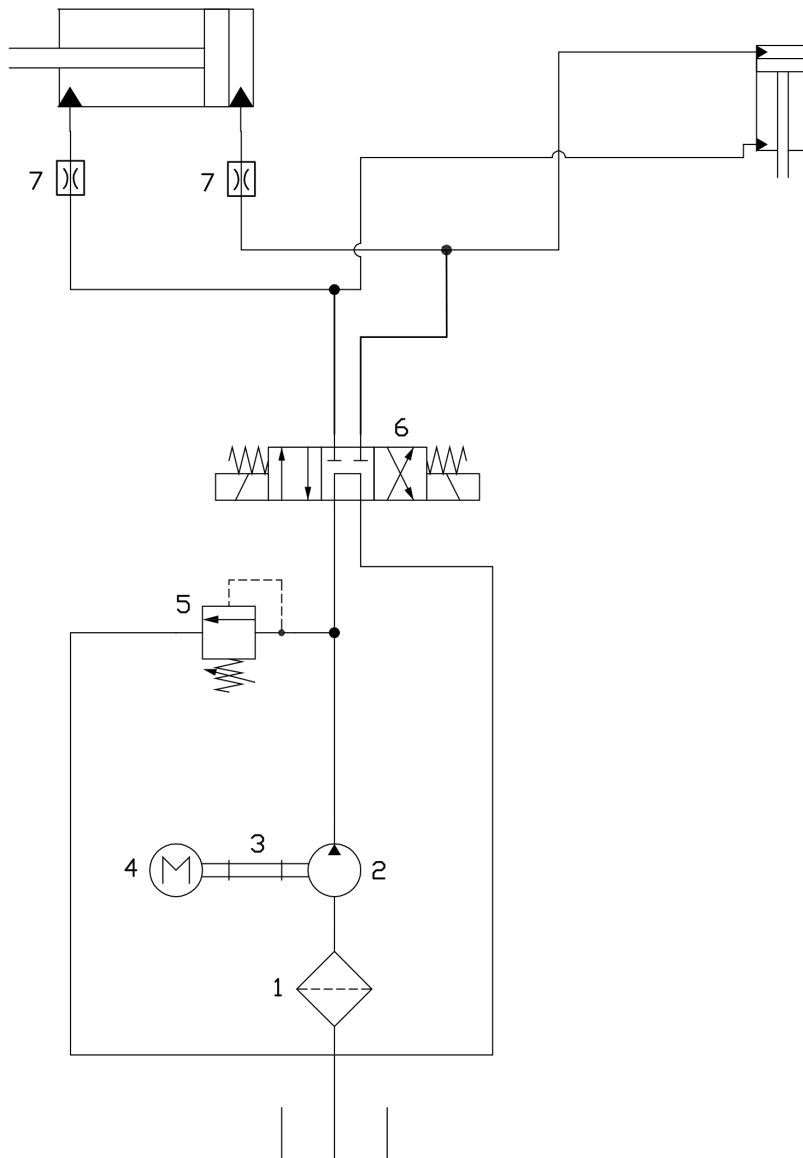


END HOT WROUGHT IRON MACHINE PC16





## A7. Hydraulic map



1. Filtro 2FA15R125N
2. Bomba hidráulica 1L 7.5 DE10R
3. Acoplamiento Elástico
4. Motor Eléctrico 2.2. Kw 1400 rpm
5. Limitadora de Presión 5RLL02P2F/03
6. Electroválvula 5EVP3D1C02D24
7. Chicle  $\varnothing$  2mm



## **WARRANTY**

Nargesa machines have 3 years warranty provided that the customer registers it in our website. Otherwise it would be only one year warranty. This one encloses any manufacturing default all along these 3 years for components. Any misuse is excluded from this condition. Labor, back and forth shipping and any eventual repair, are not included in this warranty.



## **SHIPMENT EVERYWHERE**

Nargesa will arrange transport up to final destination, whenever the customers asks for so. There is also the possibility for the customer to arrange the shipment himself with his own agency.



## **TECHNICAL ASSISTANCE**

All our customers have access to technical support quickly and efficiently. 90% of incidences are solved out on the phone, mail, Skype or video-conferencing in less than 24hours. In case of needing presencial technical assistance, we may as well send a technician to the customer's facilities.



## **WE CLEAR UP YOUR DOUBTS**

Our sales department offers personalized advice

# 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