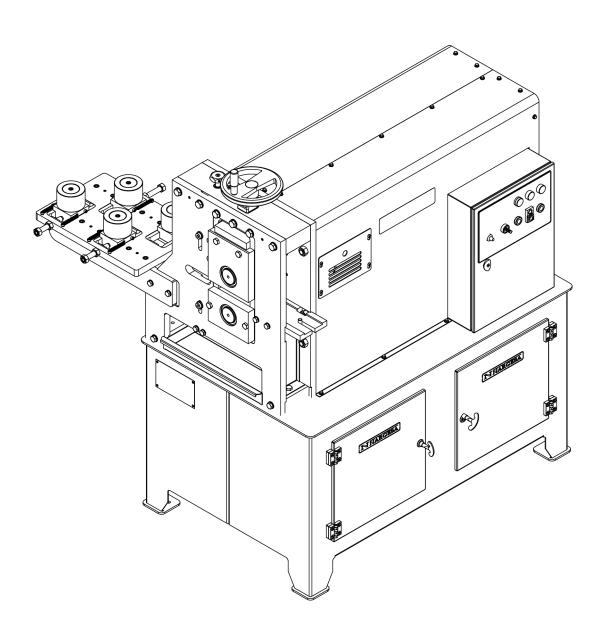


EMBOSSING MACHINE

NOA60



INSTRUCTIONS BOOK

PRADA NARGESA, S.L

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INDEX

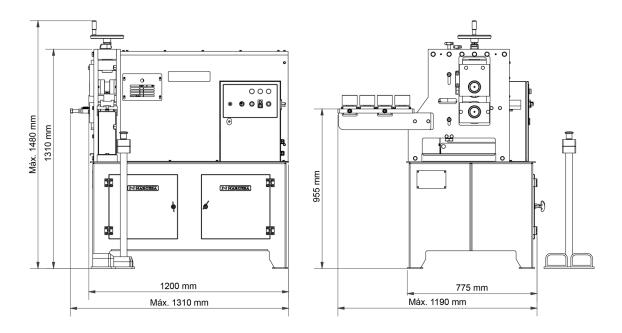
1. CHARACTERISTICS OF THE MACHINE	3
1.1. General dimensions	3
1.2. Description of the machine	3
1.3. Identifying parts of the machine	4
1.4. General specifications	5
1.5. Identifying the safeguards	6
2. TRANSPORTATION AND STORAGE	7
2.1. Transport	7
2.2. Storage conditions	7
3. MAINTENANCE AND CLEANING	8
3.1. General maintenance	8
3.1.1. Oil level	8
3.1.2. Lubricating the Transmission joint	9
3.2. Cleaning	9
4. INSTALLATION	10
4.1. Locating the machine	10
4.2. Work area	10
4.3. Admissible aouter conditions	11
4.4. Electrical connection	11
5. OPERATING MANUAL	12
5.1. Description of the Control Panel	12
5.2. Start up	12
5.3. Operation modes	13
5.3.1. Manual operation mode	13
5.3.2. Continuous/Automatic operations mode	13
5.4. Changing rollers and adjusting	13
5.4.1. Changing the rollers	14
5.4.2. Adjusting the machine	15
6. WARNINGS	17
7. TOOLING	18

TECHNICAL ANNEXE



1. CHARACTERISTICS OF THE MACHINE

1.1. General dimensions



1.2. Description of the machine

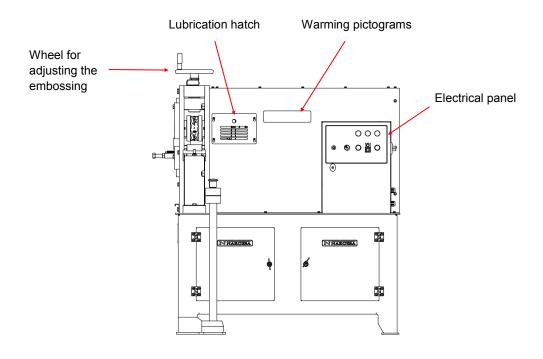
The NARGESA NOA60 machine is designed to cold emboss shapes and designs on plates, tubes, square sections. The shape and design engraved will depend on the rollers used.

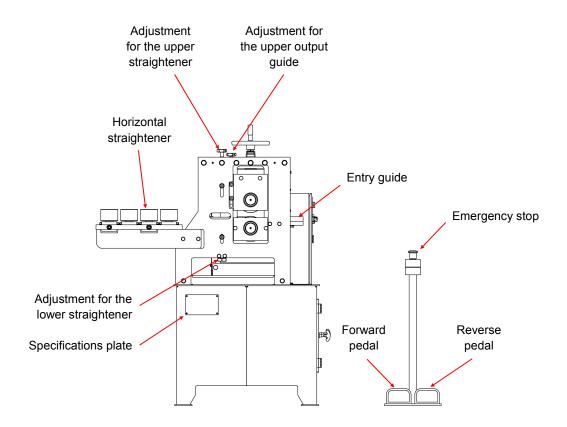
NOTE:

Any other use of this machine apart from its specifications what it was designed for could damage it and harm the people using it, in which case the manufacturer will accept no responsibility.



1.3. Identifying parts of the machine









1.4. General specifications

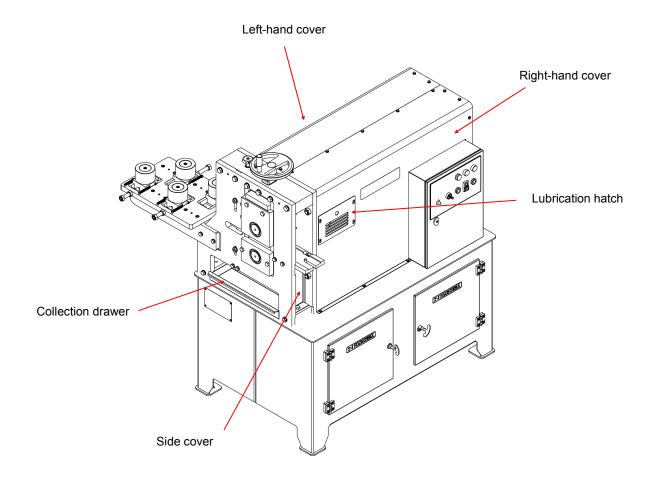
- Electric motor 5.5 KW (7.5 HP) at 1400 r.p.m.
- Voltage 230/400 V three-phase
- Power consumption 21/12 A
- Working speed: variable, 20 rpm. at 50 Hz nominal
- Weight 690 Kg.
- Maximum capacity

Square tube 60 mm or 2" 1/2 inches Solid square bar 20 mm or 3/4 inches

Plate 60x8 mm or 2"x3/8 inches



1.5. Identifying the safeguards



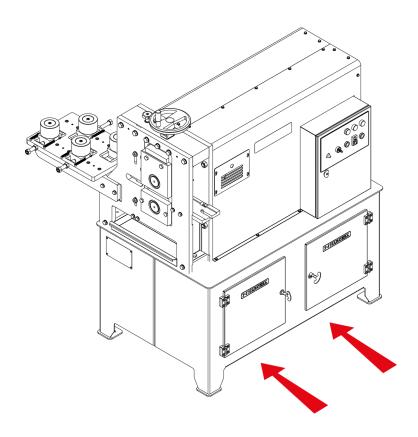
It is TOTALLY FORBIDDEN to operate the machine without its safguards. These should only be removed in case of a breakdown or maintenance and always with the machine stationary.



2. TRANSPORTATION AND STORAGE

2.1. Transportation

Transportation of the machine is made by a forklift or by shovel, by using the clamping point of the lower base machine (designed for this purpose).



Risk of overturning the machine must be kept in mind.

2.2. Storage conditions

- * Relative humidity between 30% and 95% non-condensing.
- * Temperature 15 ° C and 55 ° C.
- * Do not stack anything on the machine.
- * Do not disassemble the machine for storage.



3. MAINTENANCE AND CLEANING

3.1. General maintenance

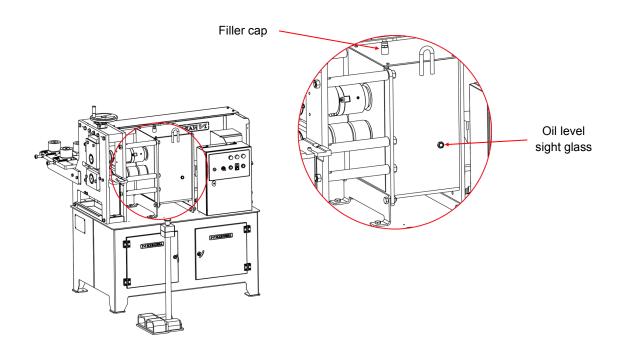
The NARGESA NOA60 engraving machine has been designed to be practically maintenance-free. Nevertheless, it is necessary to check the oil level of the gearbox and lubricate the transmission joint.

3.1.1. Oil level

To check the oil level of the gearbox there is a side sight glass, to access the sight glass, remove the side cover and make sure that the oil level is in the centre of the sight glass.

If this is not the case, look for any possible oil leaks, which must be repaired. In case of any doubt, our Technical Service can advise you at any time. If there are no leaks, top up the gearbox with SAE 80-140 oil through the filling cap until the level is in the middle of the sight glass.

This operation should be repeated every three months in case of continuous use of the machine.



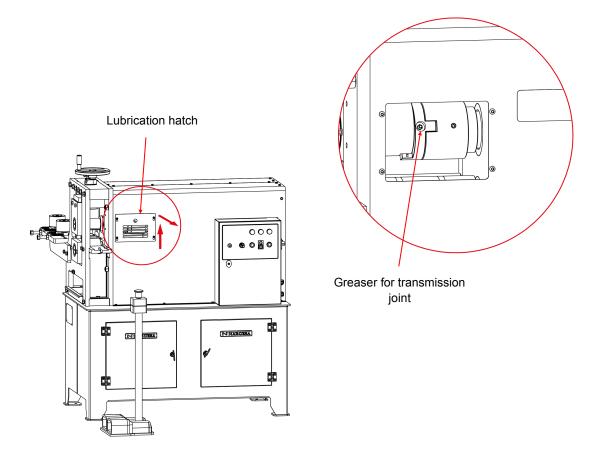


3.1.2. Lubricating the Transmission joint

The Transmission joint transmits the movement to the upper roller, which can move up or down.

This component should be lubricated approximately every 40 hours of operation.

To lubricate the transmission joint, remove the lubrication hatch and rotate the machine until the greaser is aligned with the opening and lubricate the joint with a lubrication pump.



3.2. Cleaning

The NARGESA NOA60 engraving machine is designed to emboss material, this operation will produce scale. The machine has a tray to collect this below the rollers and the vertical straightener.

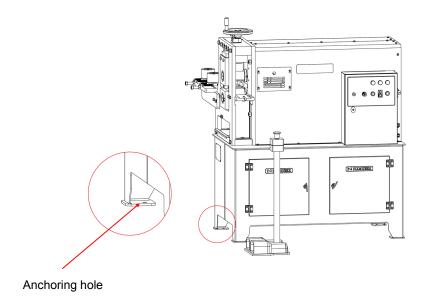
This should be removed and cleaned out regularly.



4. INSTALLATION

4.1. Locating the machine

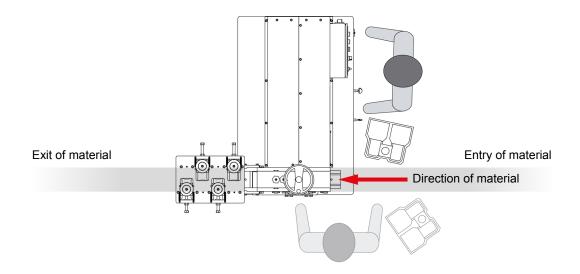
The NARGESA NOA60 machine should be located on a smooth level surface. It can be anchored to the floor using the holes provided for this purpose in the base.



4.2. Work area

To use the NARGESA NOA60 machine, it is necessary to provide for enough space to load the material and for it to exit the machine.

The working position is at the front and from the side as indicated in the illustration.





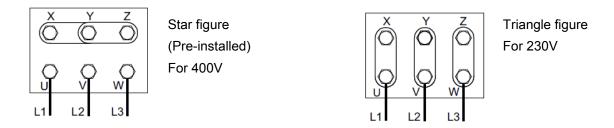
4.3. Admissible outer conditions

The working conditions of the machine NF70 NARGESA ranges between +5 ° C and +50 ° C and the maximum continuous temperature +45 ° C (24 hours)

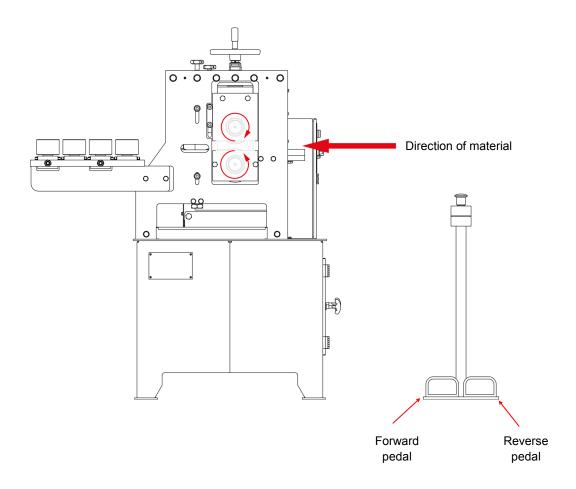
The condition of humidity ranges between 30% and 90% non-condensing.

4.4. Electrical connection

The NARGESA NOA60 embossing machine is designed to be connected to a 230 or 400V three-phase 50/60Hz mains power supply.



On using the machine, take into account that the direction of rotation of the rollers is as indicated in the illustration when the forward pedal is depressed.

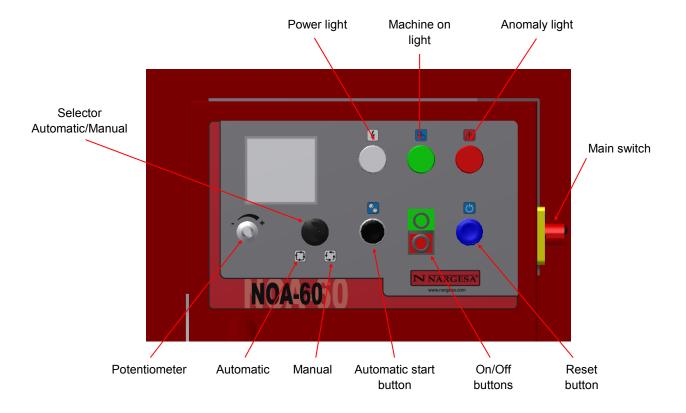




5. OPERATING MANUAL

5.1. Description of the Control Panel

The electric panel is on the front of the machine, incorporating the control panel described below.



5.2. Start up

To begin working with the Nargesa NOA60 embossing machine, proceed as follows:

- Connect the machine to the electrical power supply.
- Turn Main switch to position 1. The white and red pilot lights will come on.
- Press the reset button (Blue button) and the red pilot light should go off, if this is not the case, check the emergency stop of the pedal. If it is activated, check that there is no problem in the roller area and unlock it. Press the blue reset button again, the pilot light should go off.
- Press the On button and when the green light comes on, the machine is ready for use.



5.3. Operation modes

The Nargesa NOA60 embossing machine has 2 different operation modes, which are:

Manual: Mode in which we can adjust the machine for production.

Continuous/Automatic: For working in continuous mode.

5.3.1. Manual operation mode

This mode of operation allows total control of the Nargesa NOA60 embossing machine at a reduced and fixed rotation speed, to adjust the machine.

To select Manual Operation, start up the machine as indicated in section 5.2 and rotate the selector to manual operation mode, from that moment and with the aid of the pedals, you can control the direction of rotation of the machine forwards or backwards, depending on the pedal pressed, when you stop pressing the pedal, the machine will stop. In this mode of operation, it is possible to adjust the machine.

5.3.2. Continuous/Automatic operation mode

Once the Nargesa NOA60 embossing machine is adjusted, this mode is used to begin mass production.

To select this mode, turn the selector to the

Continuous/Automatic position (to start the machine:

- Press the Start Continuous/Automatic button on the control panel and the machine will begin to operate non-stop. To stop you will have to press the Stop Button.

In this mode of operation, the potentiometer on the Control Panel will enable you to adjust the speed of the machine.

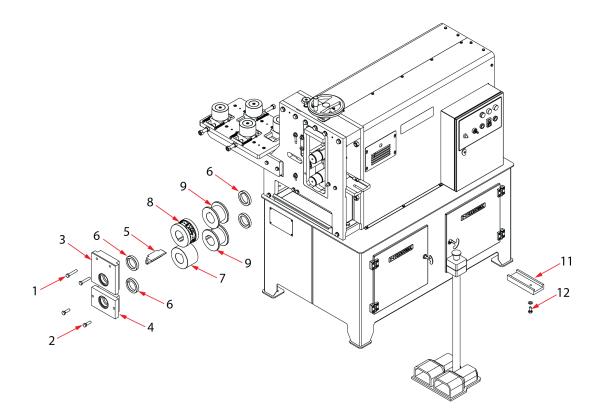
5.4. Changing Rollers and Adjusting

The Nargesa NOA60 embossing machine, as commented above, embosses designs from the rollers onto the material. This chapter will explain how to change the rollers and how to adjust them for optimum results.

Take into account the the marking of the different materials needs different rollers, i.e., if you are marking a tubular section you will need two identical rollers to make the same markings on the faces, if it is a handrail, you will need a smooth roller for the lower face and an embossed one for the upper. In both types it will be necessary to have entry guides for the material adequate for each dimension.



5.4.1. Changing the rollers

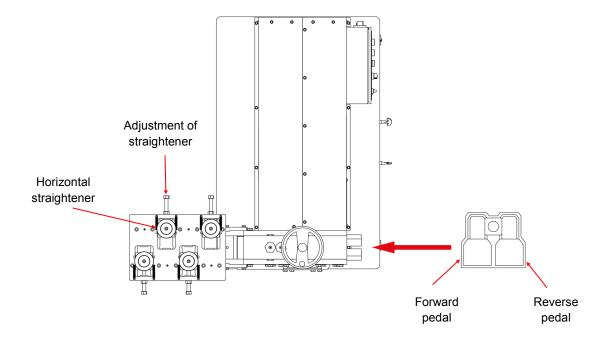


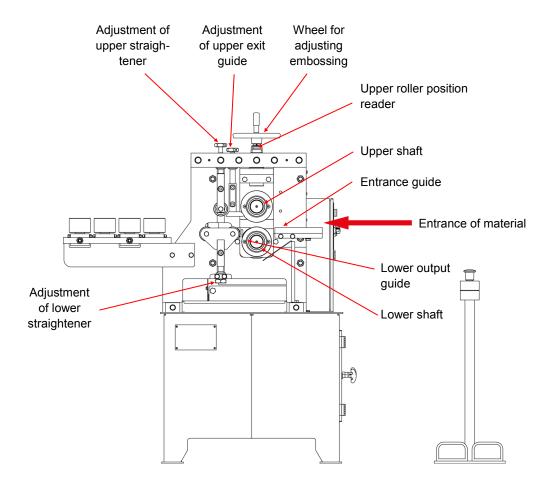
To change the rollers, raise the upper shaft using the Adjustment Wheel. Remove bolts 1 and 2 to release components 3 and 4, once the components are removed, take out the spacer rings 6 and the lower guide 5. If you wish to emboss handrails, fit smooth roller 7 onto the lower shaft and the roller with the desired design 8 onto the upper shaft, fit the lower guide 5 into its housing, fit the spacer rings 6 and components 4 and 5 together with bolts 1 and 2 to secure them. Then fit the admission guide 11, which will be secured with bolt 12 to the machine. The NOA60 is now ready to begin adjustment, which will be explained in the following chapter.

If you wish to mark a tube, change roller 7 and 8 for rollers 9 **DO NOT INSTALL** the lower guide 5, as it is not necessary to mark tubes, fit spacer rings 6, components 3 and 4 with bolts 1 and 2 as well as the corresponding admission guide 11.



5.4.2. Adjusting the machine





To adjust the Nargesa NOA60 embossing machine, the first step is to choose manual operation mode, as described in section 5.3.1.



Once the manual operation mode has been chosen and the desired rollers fitted, we will proceed with the machine adjustment:

- Using the Embossing Adjustment Wheel, raise the upper shaft as high as it will go. Raise the upper straightener roller as high as it will go. Raise the upper exit guide.
- Lower the straightener rollers to their lowest position.
- Open the horizontal straighteners completely.
- Insert the bar of material you wish to emboss and check that there is no interference with the vertical and horizontal straighteners.
- Then, with the aid of the adjustment wheel, lower the embossing roller to press on the para material. You may have to lower the upper output guide to avoid interference with the roller.
- Once you feel pressure on the material, press the forward pedal for the machine to begin embossing.
- When the material comes out of the other end, observe the depth of the marking, if you want deeper embossing, press the reverse pedal until the material is released from the roller.
- Use the Adjustment Wheel to make deeper markings and press the forward pedal again. Repeat this action until the desired marking on the material is obtained.
- When the desired marking has been achieved, raise the lower straightener rollers until they touch the material without force. Carry out the same operation with the upper roller and with the output guide.
- If, when embossed, you observe that the material is curved vertically, proceed to adjust the upper and lower straighteners until the material comes out flat.
- If you observe a horizontal curve, adjust the horizontal straightener rollers until the material comes out straight.

When all this has been done, the NARGESA NOA60 is ready for production in the Continuous/Automatic operation mode.

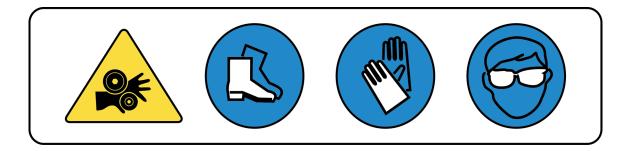
NOTE: Never adjust the force of the embossing rollers when they are pressing on the material, as this could damage the rollers.



6. WARNINGS

- Do not manipulate any component on the machine when it is in operation.
- Do not use the machine for any purpose apart form those described in this manual.
- Use gloves when handling the machine components and during the work processes.
- Use goggles and homologated protective boots.
- Hold the base material.
- Do not use the machine without its protective elements fitted

NARGESA SL will not be held liable for any accident caused by negligence on the part of the worker, for not following the use and safety instructions presented in this manual.





7. TOOLING

▶ Set of embossing rollers for 25 mm or 1 ", 30 mm or 1" 1/4, 35 and 40 mm pipes



Reference: 140-11-01-00500

Set of sectioned rollers to emboss different pipe sizes with the same set. Adjustable for pipes from 25mm or 1", 30mm or 1"-1/4, 35mm and 40mm. Ask the manufacturer about different dimensions



Set per machine	Material minimum thickness suggested by manufaturer	Weight
1	3 mm	12 Kg

Set of embossing rollers for 40, 50 and 60mm pipes



Reference: 140-11-01-00503

Set of sectioned rollers to emboss different pipe sizes with the same set. Adjustable for pipes from 40, 50 and

60mm

Ask the manufacturer about different dimensions



Set per machine	Material minimum thickness suggested by manufaturer	Weight
1	3 mm	6 Kg

▶ Set of embossing rollers for 1" 1/2, 2" and 2" 1/2 inches pipes



Reference: 140-11-01-00507

Set of sectioned rollers to emboss different pipe sizes with the same set. Adjustable for pipes from 1" 1/2, 2" and 2" 1/2 inches

Ask the manufacturer about different dimensions



Set per machine	Material minimum thickness suggested by manufaturer	Weight
1	3 mm	6 Kg

▶ Set of square bar embossing rollers 301



Reference: 140-11-01-00301

Rollers to emboss square bar up to 10 mm or 3/8", 14 mm or 9/16" and 20 mm or 3/4" inch Guide 140-11-01-00300 is required



Set per machine	Material thickness	Weight
1		12,6 Kg



▶ Set of square bar embossing rollers 302



Reference: 140-11-01-00302

Rollers to emboss square bar up to 12 mm or 1/2", 16 mm

or 5/8" and 18 mm.

Guide 140-11-01-00300 is required

Ask the manufacturer about different dimensions



Set per machine	Material thickness	Weight
1		12,6 Kg

► Set of square bar embossing rollers 303



Reference: 140-11-01-00303

Rollers to emboss square bar up to 10 mm or 3/8", 14 mm or 9/16" and 20 mm o 3/4" inch Guide 140-11-01-00300 is required Ask the manufacturer about different



Set per machine	Material thickness	Weight
1		12,9 Kg

▶ Set of square bar embossing rollers 304



Reference: 140-11-01-00304

Rollers to emboss square bar up to 12 mm or 1/2", 16 mm

or 5/8" and 18 mm.

Guide 140-11-01-00300 is required

Ask the manufacturer about different dimensions



Set per machine	Material thickness	Weight
1		12,9 Kg

► Embossing roller 01



Reference: 140-11-01-00001.40

Roller to emboss a 40 mm or 1"-1/2 inches handrail



Set per machine	Material thickness	Weight
1	From 6 to10mm	6,5 Kg



▶ Embossing roller 02



Reference: 140-11-01-00002.40

Roller to emboss a 40 mm or 1"-1/2 inches

handra

Ask the manufacturer about different



Units per machine	Material thickness	Weight
1	From 6 to 10mm	6,5 Kg

► Embossing roller 03



Reference: 140-11-01-00003.40

Roller to emboss a 40 mm or 1"-1/2 inches

handrail

Ask the manufacturer about different



Units per machine	Material thickness	Weight
1	From 6 to 10mm	6,5 Kg

► Embossing roller 04



Reference: 140-11-01-00004.40

Roller to emboss a 40 mm or 1"-1/2 inches

handrail

Ask the manufacturer about different



Units per machine	Material thickness	Weight
1	From 6 to 10mm	6,5 Kg

► Embossing roller 05



Reference: 140-11-01-00005.40

Roller to emboss a 40 mm or 1"-1/2 inches handrail



Units per machine	Material thickness	Weight
1	From 6 to 10mm	6,5 Kg

► Embossing roller 06



Reference: 140-11-01-00006.40

Roller to emboss a 40 mm or 1"-1/2 inches handrail

Ask the manufacturer about different dimensions



Units per machine	Material thickness	Weight
1	From 6 to 10mm	6,5 Kg

► Embossing roller 07



Reference: 140-11-01-00007.40

Roller to emboss a 40 mm or 1"-1/2 inches handrail

Ask the manufacturer about different dimensions



Units per machine	Material thickness	Weight
1	From 6 to 10mm	6,5 Kg

► Embossing roller 08



Reference: 140-11-01-00008.40

Roller to emboss a 40 mm or 1"-1/2 inches handrail

Ask the manufacturer about different dimensions



Units per machine	Material thickness	Weight
1	From 6 to 10mm	6,5 Kg

▶ Embossing roller 09



Reference: 140-11-01-00009

Roller to emboss handrail up to 60 mm



Units per machine	Material thickness	Weight
1	From 6 to 10mm	6,1 Kg



► Embossing roller 10



Reference: 140-11-01-00010.40

Roller to emboss a 40 mm or 1"-1/2 inches handrail

Ask the manufacturer about different dimensions



Units per machine	Material thickness	Weight
1	From 6 to 10mm	6,5 Kg

▶ Embossing roller 11



Reference: 140-11-01-00011.40

Roller to emboss a 40 mm or 1"-1/2 inches handrail

Ask the manufacturer about different dimensions



Units per machine	Material thickness	Weight
1	From 6 to 10mm	6,5 Kg

► Embossing roller 12



Reference: 140-11-01-00012.40

Roller to emboss a 40 mm or 1"-1/2 inches

handrail

Ask the manufacturer about different dimensions



Units per machine	Material thickness	Weight
1	From 6 to 10mm	6,5 Kg

► Embossing roller 13



Reference: 140-11-01-00013.40

Roller to emboss a 40 mm or 1"-1/2 inches handrail

Ask the manufacturer about different dimensions



Units per machine	Material thickness	Weight
1	From 6 to 10mm	6,5 Kg



► Embossing roller 14



Reference: 140-11-01-00014.40

Roller to emboss a 40 mm or 1"-1/2 inches handrail

Ask the manufacturer about different dimensions



Units per machine	Material thickness	Weight
1	From 6 to 10mm	6,5 Kg

► Embossing roller 15



Reference: 140-11-01-00015.40

Roller to emboss a 40 mm or 1"-1/2 inches

handrail

Ask the manufacturer about different dimensions



Units per machine	Material thickness	Weight
1	From 6 to 10mm	6,4 Kg

▶ Embossing roller 16



Reference: 140-11-01-00016.40

Roller to emboss a 40 mm or 1"-1/2 inches

handrail

Ask the manufacturer about different dimensions



Units per machine	Material thickness	Weight
1	From 6 to 10mm	6,4 Kg

▶ Embossing roller 17



Reference: 140-11-01-00017.40

Roller to emboss a 40 mm or 1"-1/2 inches

handrail



Units per machine	Material thickness	Weight
1	From 6 to 10mm	6,4 Kg



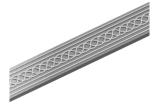
▶ Embossing roller 18



Reference: 140-11-01-00018.40

Roller to emboss a 40 mm or 1"-1/2 inches handrail

Ask the manufacturer about different dimensions



Units per machine	Material thickness	Weight
1	From 6 to 10mm	6,4 Kg

► Embossing roller 19



Reference: 140-11-01-00019.40

Roller to emboss a 40 mm or 1"-1/2 inches

handrail

Ask the manufacturer about different dimensions



Units per machine	Material thickness	Weight
1	From 6 to 10mm	6,4 Kg

▶ Embossing roller 20



Reference: 140-11-01-00020.40

Roller to emboss a 40 mm or 1"-1/2 inches

handrail

Ask the manufacturer about different dimensions



Units per machine	Material thickness	Weight
1	From 6 to 10mm	6,5 Kg

► Handrails embossing roller 21



Reference: 140-11-01-00021.50

Roller to emboss a 50 mm or 2" inches handrail



Units per machine	Material thickness	Weight
1	From 6 to 10mm	6,4 Kg



▶ Embossing roller 22



Reference: 140-11-01-00022.40

Roller to emboss a 40 mm or 1"-1/2 inches handrail

Ask the manufacturer about different dimensions



Units per machine	Material thickness	Weight
1	From 6 to 10mm	6,4 Kg

▶ Embossing roller 23



Reference: 140-11-01-00023

Roller to emboss handrail up to 60 mm

Ask the manufacturer about different dimensions



Units per machine	Material thickness	Weight
1	From 6 to 10mm	6 Kg

► Embossing roller 24



Reference: 140-11-01-00024.40

Roller to emboss a 40 mm or 1"-1/2 inches handrail

Ask the manufacturer about different dimensions



Units per machine	Material thickness	Weight
1	From 6 to 10mm	6,4 Kg

▶ Embossing roller 25



Reference: 140-11-01-00025

Roller to emboss handrail up to 60 mm



Units per machine	Material thickness	Weight
1	From 6 to 10mm	6,3 Kg



▶ Set of embossing rollers 26



Reference: 140-11-01-00026

Rollers to emboss handrail up to 60 mm and square bar up to 20 mm or 3/4" inch

To emboss edge square bar, an entrance guide is required 140-11-01-00027

Ask the manufacturer about different dimensions



Set per machine	Material thickness	Weight
1	 -	11,4 Kg

▶ Entrance guide for edge square bar



Reference: 140-11-01-00027

Entrance guide to emboss edge square bar up to

20mm or 3/4" inch Weight: 18 Kg



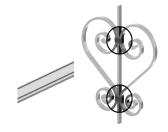
► Embossing roller 201



Reference: 140-11-01-00201

Roller to emboss 12 and 15 mm or 1/2 inch handrail. For clamp forming
Guide 140-11-01-00200 is required

Ask the manufacturer about different dimensions



Units per machine	Material thickness	Weight
1	From 6 to 10mm	6,5 Kg

► Embossing roller 202

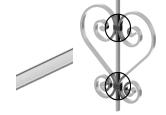


Reference: 140-11-01-00202

Roller to emboss 12 and 15 mm or 1/2 inch handrail. For clamp forming

Guide 140-11-01-00200 is required

Ask the manufacturer about different dimensions



Units per machine	Material thickness	Weight
1	From 6 to 10mm	6,6 Kg



▶ Inlet guide for 25 mm or 1" and 30 mm or 1" 1/4 Pipe



Reference: 140-11-01-00501

Inlet guide for 25 mm or 1" and 30 mm or 1" 1/4 pipe

Weight: 3 Kg

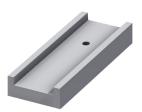
▶ Inlet guide for 35 and 40 mm pipe



Reference: 140-11-01-00502 Inlet guide for 35 and 40 mm pipe

Weight: 2,8 Kg

▶ Inlet guide for 40 mm pipe



Reference: 140-11-01-00504 Inlet guide for 40 mm pipe

Weight: 2,5 Kg

▶ Inlet guide for 50 mm pipe



Reference: 140-11-01-00505 Inlet guide for 50 mm pipe

Weight: 2,4 Kg



▶ Inlet guide for 60 mm pipe



Reference: 140-11-01-00506 Inlet guide for 60 mm pipe

Weight: 2,2 Kg

▶ Inlet guide for 1" 1/4 inches pipe



Reference: 140-11-01-00508 Inlet guide for 1" 1/4 inches pipe

Weight: 2,6 Kg

▶ Inlet guide for 2" inches pipe



Reference: 140-11-01-00509 Inlet guide for 2" inches pipe

Weight: 2,4 Kg

▶ Inlet guide for 2" 1/2 inches pipe



Reference: 140-11-01-00510 Inlet guide for 2" 1/2 inches pipe

Weight: 2,2 Kg



► Entrance guide for square bar



Reference: 140-11-01-00300

Entrance guide for square bar of 10mm or 3/8", 12mm or 1/2", 14mm or 9/16", 16mm or 5/8", 18mm and 20 mm or 3/4" inch

Weight: 4 Kg

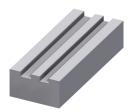
► Entrance guide for 60 mm handrail



Reference: 140-11-01-00400 Entrance guide for 60 mm handrail.

Weight: 4,3 Kg

▶ Entrance guide for 12mm or 1/2" inch and 15 mm handrail



Reference: 140-11-01-00200

Entrance guide for 12 mm and 15 mm or 1/2"

inch handrail Weight: 4,6 Kg

▶ Rollerstand



Reference: 140-00-00-00004

Seven-rollers stand

Ask the manufacturer about different

dimensions

Working Height	Dimensions	Load capacity	Weight
650 / 1200 mm	2050x470 mm	800 Kg	65 Kg

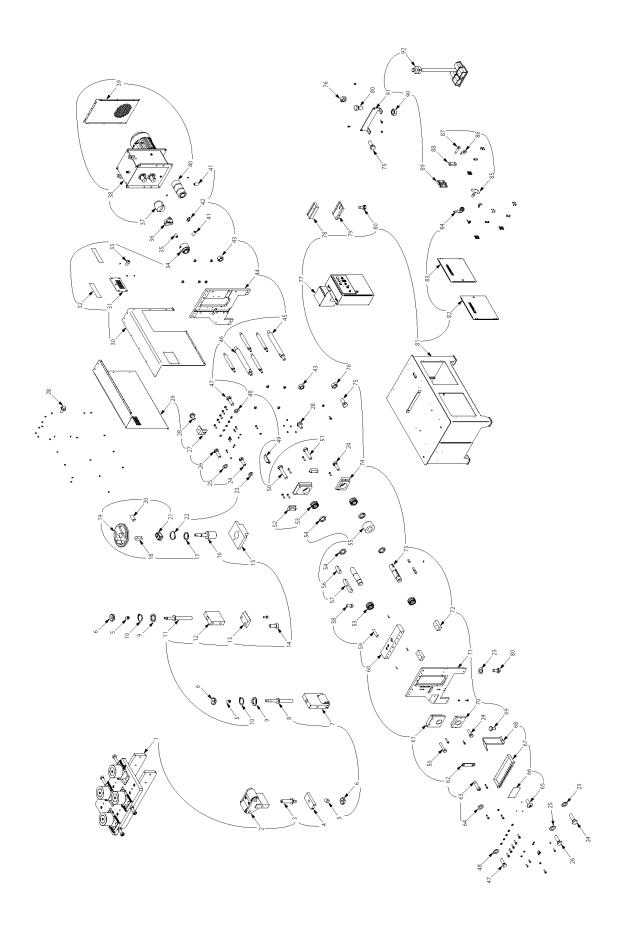


Technical annexe NOA60 Embossing machine

Exploded view
Horizontal straightener assembly
Horizontal straightener roller assembly
Lower straightener assembly
Moving straightener roller
Upper straightener assembly
Gearbox assembly
Electrical diagrams



A1. Exploded view





N° ORDEN	DIBUJO	DESCRIPCION	N° PLANO	CANTIDAD
1		CONJUNTO ENDEREZADOR HORIZONTAL	130-11-01-00308	1
2	3	CONJUNTO ENDEREZADOR INFERIOR	130-11-01-00306	1
3	**************************************	CONJUNTO VARILLA ROSCADA ENDEREZADOR INFERIOR	130-11-01-00302	1
4		SEPARADOR INFERIOR ENDEREZADOR	120-11-01-00372	1
5		ESPARRAGO ALLEN DIN 913 M8X12	020-D913-M8X12	3
6	(3)	HEXAGONAL ACCIONAMIENTO	120-11-01-00369	3
7	43.7	CONJUNTO ENDEREZADOR SUPERIOR	130-11-01-00305	1
8		CONJUNTO VARILLA ROSCADA ENDEREZADOR SUPERIOR	130-11-01-00303	1
9		ARANDELA APOYO VARILLAS SUPERIORES	120-11-01-00391	2
10	Canal Canal	CIRCLIP DE EJE DIN 471 Ø16	030-D471-00003	2
11	# (%)	CONJUNTO VARILLA ROSCADA PATIN ENTRADA SUPERIOR	130-11-01-00313	1
12		SOPORTE PATIN SUPERIOR ENTRADA	120-11-01-00386	1
13		PATIN SUPERIOR ENTRADA ENDEREZADOR	120-11-01-00385	1
14	() <u>101120</u>	TORNILLO ALLEN DIN 912 M10X25	020-D912-M10X25	2
15		UNION MOVIL SUPERIOR	120-11-01-00313	1
16		EJE PRINCIPAL MOVIMIENTO VERTICAL	120-11-01-00314	1
17		ARANDELA APOYO EJE PRINCIPAL	120-11-01-00392	1
18		CHAVETA PARALELA DIN 6885 A 6X6X18	030-D6885A-00031	1
19		VOLANTE ACCIONAMIENTO NO A60	120-11-01-00394	1
20		ESPARRAGO ALLEN DIN 913 M6X12	020-D913-M6X12	1



N° ORDEN	DIBUJO	DESCRIPCION	N° PLANO	CANTIDAD
21		CONTADOR DD52R-AR-0002.0-S-C3	031-CON-00003	1
22		CIRCLIP EJE DIN 471 Ø25	030-D471-00008	1
23	0	ARANDELA DIN 125 B M12	020-D125B-M12	6
24	Justina (1)	TORNILLO HEXAGONAL DIN 933 M12X40	020-D933-M12X40	8
25	0	ARANDELA DIN 125 B M10	020-D125B-M10	12
26	Carried	TORNILLO HEXAGONAL DIN 933 M10X35	020-D933-M10X35	12
27	\$	SOPORTE FRONTAL TAPA FIJA	120-11-01-00364	1
28		TORNILLO HEXAGONAL EMBRIDADO M6X12	020-D6921-M6X12	31
29	Samuel Control of the	CONJUNTO TAPA FIJA MAQUINA DE GRABAR	130-11-01-00311	1
30		TAPA DERECHA MAQUINA DE GRABAR	120-11-01-00351	1
31		TAPA ZONA ENGRASE	120-11-01-00363	1
32	<u>*</u> 3 6 9	CALCA ADVERTENCIAS NOA60	122-CAL-1101-002	2
33	Made	TORNILLO ALLEN ABOMBADO ISO 7380 M6X10	020-I7380-M6X10	4
34	6	ACOPLAMIENTO TRACCION LADO MAQUINA	120-11-01-00329	1
35	8	TORNILLO SIN CABEZA CON HUECO HEXAGONAL	020-D913-M5X8	1
36		ACOPLAMIENTO CENTRAL TRACCION	120-11-01-00330	1
37	6)	ACOPLAMIENTO TRACCION LADO REDUCTOR	120-11-01-00325	1
38		CONJUNTO REDUCTOR MAQUINA DE GRABAR	130-11-01-00310	1
39		TAPA TRASERA MAQUINA DE GRABAR	120-11-01-00352	1
40	0	ACOPLAMIENTO TRACCION INFERIOR	130-11-01-00301	1



N° ORDEN	DIBUJO	DESCRIPCION	Nº PLANO	CANTIDAD
41		ESPARRAGO ALLEN DIN 913 M10X20	020-D913-M10X20	4
42	920	ENGRASADOR DIN 71412 M8 RECTO	020-D71412-M8 RECTO	1
43	6	TUERCA HEXAGONAL DIN 934 M18	020-D934-M18	11
44		PLACA INTERIOR	120-11-01-00317	1
45		BARRA SEPARADORA PASANTE	120-11-01-00343	5
46	5	BARRA SEPARADORA ROSCADA	120-11-01-00344	1
47	(Madada)	TORNILLO HEXAGONAL DIN 933 M14X45 8.8 PAVONADO	020-D933-M14X45	12
48	0	ARANDELA DIN 125 1B M14	020-D125B-M14	12
49		GUIA SALIDA PASAMANO	120-11-01-00382	1
50	The De la constitution of the land of the	TORNILLO HEXAGONAL DIN 931 M12X65	020-D931-M12x65	4
51	The way	TORNILLO HEXAGONAL DIN 931 M12X55	020-DIN931-M12X55	4
52		GUIA EXTERIOR	120-11-01-00318	2
53		COJINETE DE RODILLOS DOBLE SL045011PP	030-CJ-00024	4
54		SEPARADOR RODILLOS	120-11-01-00307	4
55	(g)	RODILLO INFERIOR MAQUINA DE GRABAR	120-11-01-00308	1
56		CHAVETA PARALELA DIN6885A 16X10X50	030-D6885A-00029	2
57		CHAVETA EJES PRINCIPALES	120-11-01-00354	2
58	(Gamman : (5)	TORNILLO ALLEN DIN 6912 M6X16	020-D6912-M6X16	2
59	0	PASADOR CILINDRICO DIN 7979D D8X40	030-D7979D-00006	4
60		SOPORTE SUPERIOR	120-11-01-00316	1



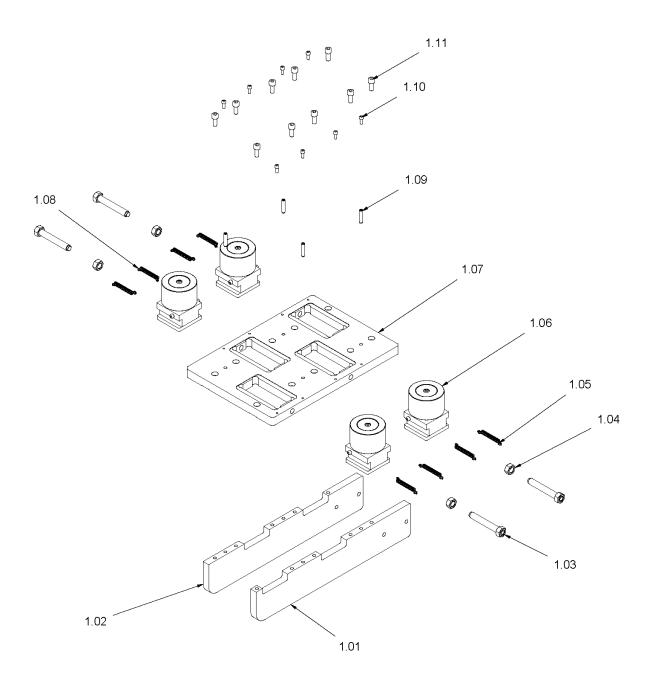
N° ORDEN	DIBUJO	DESCRIPCION	N° PLANO	CANTIDAD
61		SOPORTE SUPERIOR EXTERIOR	120-11-01-00384	2
62	Š,	PLACA APOYO EXTERIOR GUIA PATIN SUPERIOR	120-11-01-00387	1
63	(D) = 32	TORNILLO GUIA ISO 7379 D14x40	020-l7379-D14X40	4
64	(3)	ARANDELA GUIA EXTERIOR ENDEREZADORES	120-11-01-00393	2
65	@F)	REMACHE DE CLAVO DIN 7337 DE AL Ø3X8	020-D7337-3X8	4
66		PLACA CARACTERISTICAS NO A60	122-PLC-1101-001	1
67		CAJON RECOGEDOR	120-11-01-00370	1
68		TAPA PROTECCION FRONTAL INFERIOR	120-11-01-00373	1
69	The state of the s	TORNILLO HEXAGONAL DIN 933 M12X20	020-D933-M12X20	1
70	(Pe)	SOPORTE INFERIOR EXTERIOR	120-11-01-00383	1
71		PLACA EXTERIOR	120-11-01-00315	1
72		SOPORTE INFERIOR	120-11-01-00338	2
73	07=30	EJE MAQUINA DE GRABAR	120-11-01-00309	2
74		SOPORTE INFERIOR INTERIOR	120-11-01-00311	1
75	(mentioned)	TORNILLO HEXAGONAL DIN 933 M14X35	020-D933-M14X35	4
76	6	TUERCA DIN 934 M14	020-D934-M14	4
77		KIT INSTALACION ELECTRICA MAQUINA DE GRABAR	050-KIE-1101-001	1
78		GUIA ENTRADA PASAMANO 50	120-11-01-00366	1
79		GUIA MATERIAL ENTRADA	120-11-01-00326	1
80	(made and)	TORNILLO HEXAGONAL DIN 933 M12X25	020-D933-M12X25	5



N° ORDEN	DIBUJO	DESCRIPCION	N° PLANO	CANTIDAD
81		CONJUNTO ESTRUCTURA MAQUINA DE GRABAR	130-11-01-00307	1
82	ed.	PUERTA IZQUIERDA MAQUINA GRABAR	120-11-01-00360	1
83		PUERTA DERECHA MAQUINA DE GRABAR	120-11-01-00361	1
84		CIERRE DE LENGÜETA CON TRIANGULO 8 M20	031-CLT-00001	2
85		LLAVE PARA CIERRE TRIANGULO DE 8 FLOTANTE NIQUELADA	031-LLT-00001	2
86		TORNILLO ALLEN DIN 7991 M6X12	020-D7991-M6X12	8
87		TORNILLO ALLEN DIN 7991 M6X25	020-D7991-M6X25	8
88	()	GRUESO PUERTA	120-12-02-00125	4
89	(Spring)	BISAGRA DE PLASTICO 30 ENTRE CENTROS	031-BP-00001	4
90	(3)	TUER CA DIN 934 M12	020-D934-M12	2
91		SOPORTE DELANTERO MAQUINA	120-12-02-00187	1
92	*	PEDAL DOBLE CON PARO DE EMERGENCIA	050-PED-00002	1



A2. Horizontal straightener assembly

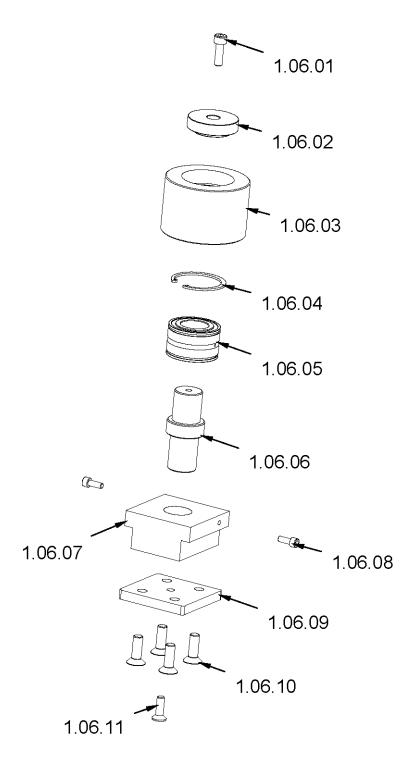




N° ORDEN	DIBUJO	DESCRIPCION	N° PLANO	CANTIDAD
1.01		SOPORTE FRONTAL ENDEREZADOR TRASERO	120-11-01-00328	1
1.02	J	SOPORTE TRASERO ENDEREZADOR TRASERO	120-11-01-00327	1
1.03		CONJUNTO TORNILLO AJUSTE ENDEREZADOR HORIZONTAL	130-11-01-00312	4
1.04	6	TUERCA DIN 934 M16	020-D934-M16	4
1.05		MUELLE TRACCION D10X1.5 DERECHO	120-11-01-00378	4
1.06		CONJUNTO RODILLO ENDEREZADOR HORIZONTAL	130-11-01-00309	4
1.07	B	PLACA BASE ENDEREZADOR TRASERO	120-11-01-00331	1
1.08		MUELLE TRACCION D10X1.5 IZQUIERDO	120-11-01-00377	4
1.09		PASADOR CILINDRICO DIN 7979D D8X40	030-D7979D-00006	4
1.10	© 25525	TORNILLO ALLEN DIN 912 M6X16	020-D912-M6X16	8
1.11	<i>₹</i>	TORNILLO ALLEN DIN 912 M10X25	020-D912-M10X25	10



A3. Horizontal straightener roller assembly

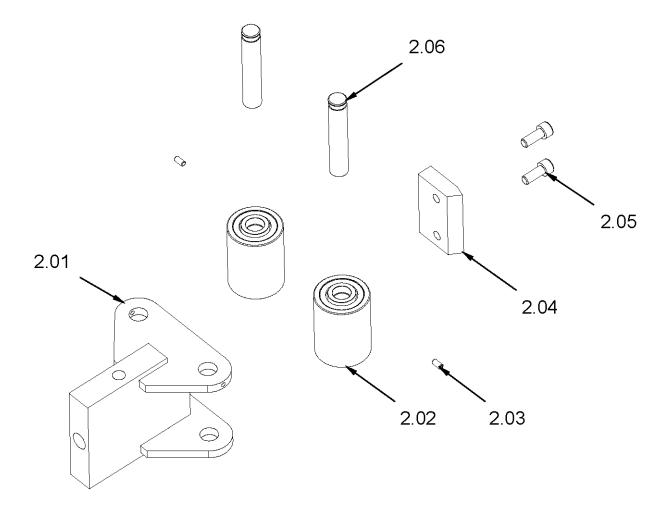




N° ORDEN	DIBUJO	DESCRIPCION	N° PLANO	CANTIDAD
1.06.01	® 5335	TORNILLO ALLEN DIN 912 M8X25	020-D912-M8X25	1
1.06.02	(9)	TAPA RODILLO ENDEREZADOR HORIZONTAL	120-11-01-00337	1
1.06.03	9	RODILLO ENDEREZADOR HORIZONTAL	120-11-01-00333	1
1.06.04		CIRCLIP AGUJERO DIN 472 D55X2	030-D472-00014	1
1.06.05	6	RODAMIENTO DE RODILLOS DOBLE SL04506PP	030-CJ-00025	1
1.06.06		EJE RODILLO ENDEREZADOR HORIZONTAL	120-11-01-00336	1
1.06.07		SOPORTE RODILLO ENDEREZADOR HORIZONTAL	120-11-01-00334	1
1.06.08	© 25555	TORNILLO ALLEN DIN 912 M6X16	020-D912-M6X16	2
1.06.09		TAPA INFERIOR ENDEREZADOR HORIZONTAL	120-11-01-00335	1
1.06.10		TORNILLO ALLEN DIN 7991 M10X30	020-D7991-M10X30	4
1.06.11	(5)	TORNILLO ALLEN DIN 7991 M8X25	020-D7991-M8X25	1



A4. Lower straightener assembly

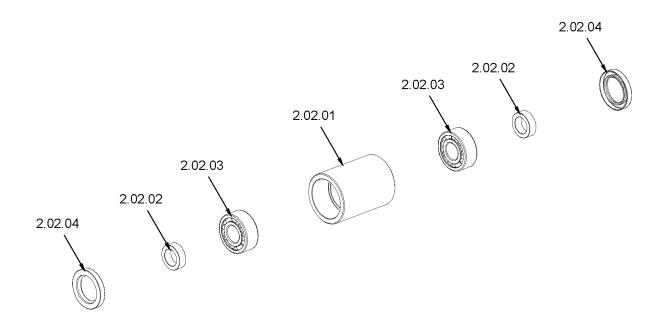




N° ORDEN	DIBUJO	DESCRIPCION	Nº PLANO	CANTIDAD
2.01		ESTRUCTURA ENDEREZADOR INFERIOR	130-11-01-00306-FM1	1
2.02		RODILLO ENDEREZADOR MOVIL	130-11-01-00304	2
2.03		ESPARRAGO ALLEN DIN 913 M6X12	020-D913-M6X12	2
2.04		PATIN INTERMEDIO	120-11-01-00379	1
2.05	© 7000 (300 (300 (300 (300 (300 (300 (300	TORNILLO ALLEN DIN 912 M10X25	020-D912-M10X25	2
2.06	je L	EJE RODILLO ENDEREZADOR DOBLE	120-11-01-00347	2



A5. Moving straightener roller

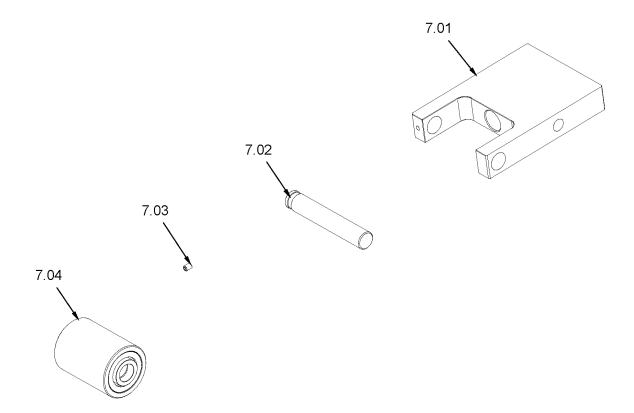




N° ORDEN	DIBUJO	DESCRIPCION	Nº PLANO	CANTIDAD
2.02.01		RODILLO ENDEREZADOR	120-11-01-00320	1
2.02.02		CASQUILLO RETEN RODILLO ENDEREZADOR	120-11-01-00389	2
2.02.03		RODAMIENTO DOBLE 4204ATN9 D20XD47X18	030-CJ-00026	2
2.02.04	0	RETEN D30XD47X7	040-RET-00010	2



A6. Upper straightener assembly

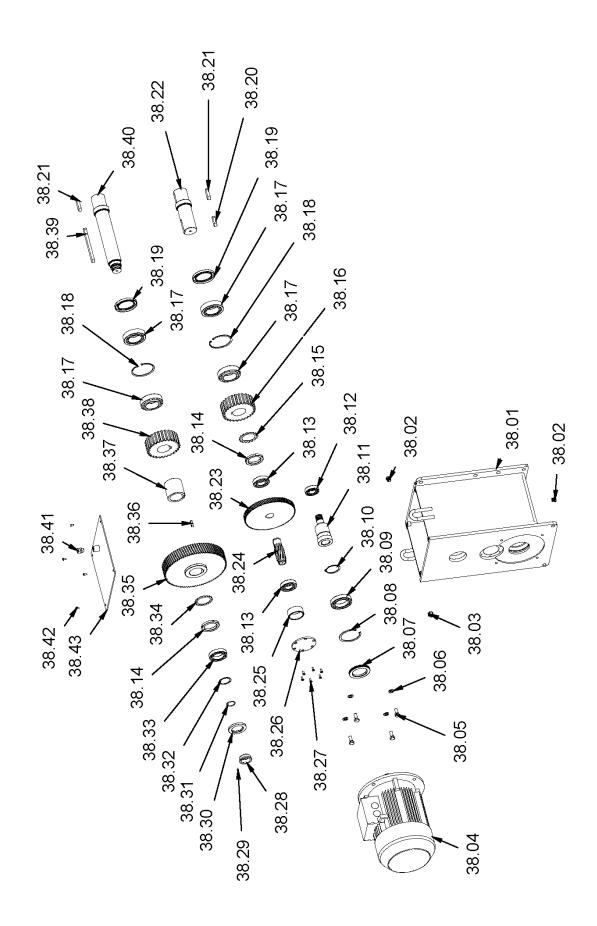




N° ORDEN	DIBUJO	DESCRIPCION	Nº PLANO	CANTIDAD
7.01		SOPORTE RODILLO ENDEREZADOR SUPERIOR	120-11-01-00319	1
7.02		EJE RODILLO ENDEREZADOR	120-11-01-00348	1
7.03		ESPIGA ALLEN DIN 913 M6x8	020-D913-M6X8	1
7.04		RODILLO ENDEREZADOR MOVIL	130-11-01-00304	1



A7. Gearbox assembly





N° ORDEN	DIBUJO	DESCRIPCION	Nº PLANO	CANTIDAD
38.01		CARCASA REDUCTOR	130-12-02-00201	1
38.02		TAPON DE VACIADO ALLEN 3/8" GAS	040-TVA-0004	2
38.03	O	NIVEL DE ACEITE 3/8"	040-NA-00001	1
38.04	(A)	MOTOR ELECTRICO DE 5.5 KW A 1400 RPM BRIDA B5	050-ME-00010	1
38.05	Tarada M	TORNILLO HEXAGONAL DIN 933 M12X30	020-D933-M12X30	4
38.06	0	ARANDELA DIN 125 B M12	020-D125B-M12	4
38.07	0	RETEN D65XD95X10	040-RET-00006	1
38.08		CIRCLIP AGUJERO DIN472 D95X3	030-D472-00013	1
38.09		COJINETE DE BOLAS 6012 D60XD95X18	030-CJ-00010	1
38.10		CIRCLIP EJE DIN471 D60	030-D471-00012	1
38.11		PIÑON DE ENTRADA MOTOR	120-12-02-00017	1
38.12		COJINETE DE RODILLOS NJ206 D30XD62X16	030-CJ-00017	1
38.13		COJINETE DE BOLAS 6207 D35XD72X17	030-CJ-00013	2
38.14	0	TUERCA RANURADA DIN 981 M60X2 KM12	020-D981-KM12	2
38.15		ARANDELA FIJACIÓN TUERCA KM-12 EJE INFERIOR	120-12-02-00191	1
38.16		ENGRANAJE INFERIOR REENVIO	120-12-02-00113	1
38.17	0	COJINETE DE RODILLOS CONICOS 33112 D60XD100X30	030-CJ-00006	4



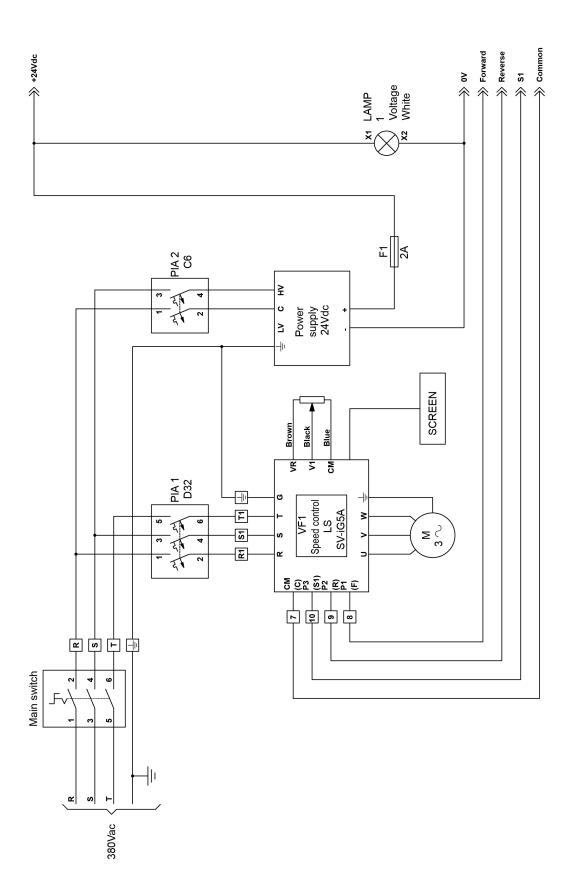
N° ORDEN	DIBUJO	DESCRIPCION	Nº PLANO	CANTIDAD
38.18		CIRCLIP AGUJERO DIN472 D100X3	030-D472-00011	2
38.19		RETEN D70XD100X10	040-RET-00007	2
38.20		CHAVETA DIN 6885 A 18X11X50	030-D6885A-00026	1
38.21		CHAVETA PARALELA DIN6885A 18X11X56	030-D6885A-00028	2
38.22	(7)	EJE MOTRIZ INFERIOR	120-11-01-00300	1
38.23		ENGRANAJE 1	120-12-02-00109	1
38.24		PIÑON 2	120-12-02-00110	1
38.25		SEPARADOR COJINETE	120-12-02-00136	1
38.26		TAPETA COJINETE INFERIOR	120-12-02-00134	1
38.27	(i)	TORNILLO ALLEN DIN 7991 M6X16	020-D7991-M6X16	6
38.28		ANILLO TRASERO CAJA MAQUINA GRABAR	120-11-01-00376	1
38.29		ESPARRAGO ALLEN DIN 913 M5X6	020-D913-M5X6	1
38.30	0	RETEN D50XD80X8	040-RET-00002	1
38.31	0	JUNTA TORICA Ø34X3 90 SHORE	040-JT-34X3-90	1
38.32		CIRCLIP EJE DIN471 D50	030-D471-00011	1
38.33		COJINETE DE BOLAS 6010 D50XD80X16	030-CJ-00009	1
38.34	0	ARANDELA FIJACIÓN TUERCA KM-12 EJE SUPERIOR	120-12-02-00190	1



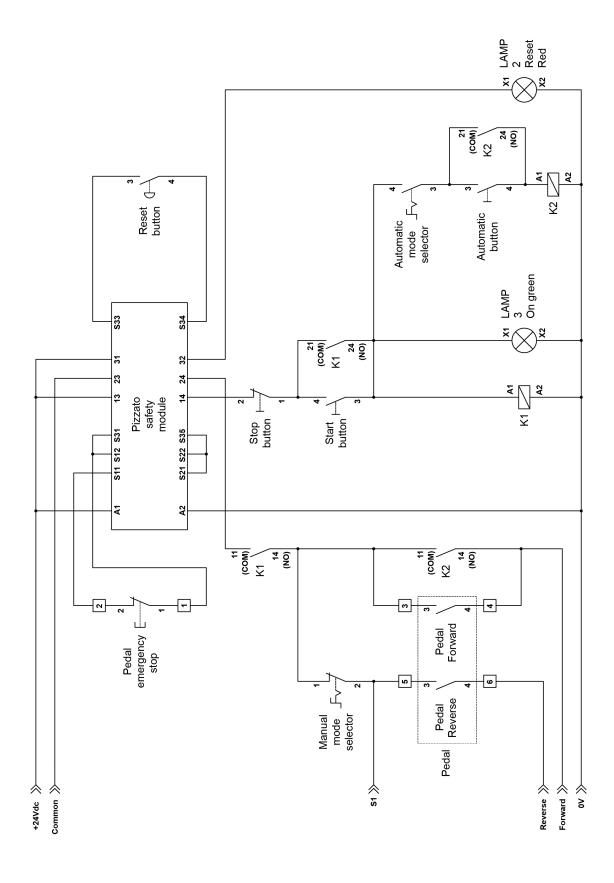
N° ORDEN	DIBUJO	DESCRIPCION	Nº PLANO	CANTIDAD
38.35	0	ENGRANAJE 2	120-12-02-00111	1
38.36		CHAVETA DIN6885 A 10X8X32	030-D6885A-00024	1
38.37		CASQUILLO SEPARADOR 2	120-12-02-00135	1
38.38		ENGRANAJE SUPERIOR REENVIO	120-12-02-00112	1
38.39		CHAVETA DIN 6885 A 18X11X180	030-D6885A-00025	1
38.40	3	EJE MOTRIZ SUPERIOR	120-11-01-00301	1
38.41	9	TAPON RESPIRADERO 3/8"	040-TRE-00001	1
38.42	Transie	TORNILLO ALLEN CABEZA REDONDA ISO 7380 M6X12	020-I7380-M6X12	4
38.43	Carried States	CONJUNTO TAPA REDUCTOR	130-12-02-00212	1

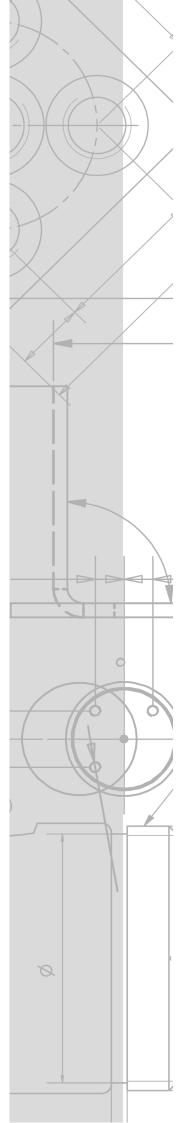


A8. Electrical diagrams



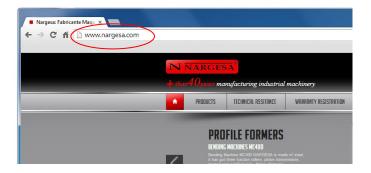




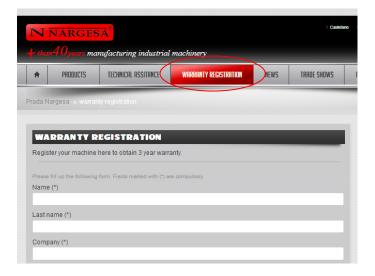


WARRANTY REGISTRATION

1. Among www.nargesa.com on our site



2. Select the menu Warranty Registration



3. Complete the form with your details and press Send



4. The window Message Sent confirms your data has been successfully sent to Prada Nargesa SL. Your machine has been registered and has a warranty of three years in total.

