# INSTRUCTIONS MANUAL EDGE BANDING MACHINE OF HOT-MELT GLUE

> Model: KM 775 - 785

➤ Document: Rev.1





# **TECHNICAL SPECIFICATION:**

THICKNESS BOARD	MÍN.	8 mm
	MAX	60 mm
WIDE BOARD	MIN.	75 mm
LONGITUDE BOARD	MÍN.	120 mm
THICKNESS EDGING	MAX.	3 mm (* 5 mm Solid Wood OPTION)
DRAG CHAIN SPEED	2 speed	9-14 m/mi

# **ELECTRIC CONNECTION:**

VOLTAJE			Total	Total	Total	2 7 2	Total	Total	Total
	8 8	5	CV	KW	AMP.	5. 18 00	CV	KW	AMP.
230	FR	trifasica	11,14	8,20	24,2	FN	7,88	5,80	17,1
400	FR	trifasica	11,14	8,20	13,9	FN	7,88	5,80	9,9
415	FR	trifasica	11,14	8,20	13,4	FN	7,88	5,80	9,5
440	FR	trifasica	11,14	8,20	12,7	FN	7,88	5,80	9,0

**END TRIMMING STATION: V-7** 

MOTOR: 0.35 Kw

TRIMMING STATION: JC-5 BC-5

MOTOR: 2 x 0.35 Kw OPTIONAL (2 x 0.55 Kw)

RADIUS SCRAPE UNIT: RB-8

FLAT SCRAPE UNIT: RR-7 (OPTIONAL)

POLISHER STATION: PC-9

MOTOR: 2 x 0.09 Kw

DRAG UNIT:

GEAR MOTOR: 1.5 Kw

PREMILLING STATION: PF-12

MOTOR: 2 x 1.5 Kw





# **CE Declaration of Conformity**

EG Conformiteitsverklaring - EG Konformitätserklärung

EC Declaration of Conformity - Déclaration de Conformité CE

Geachte Klant - Sehr Geehrter Kunde - Dear Customer - Cher Client,

Wij, wir, we, nous

NV WERKHUIZEN LANDUYT

Kolvestraat 44

8000 BRUGGE - BELGIE

verklaren hierbij dat de bouwwijze van de machines - erklären dass die Bauart der Maschines - herewith declare that the construction of the machines - certifions par la présente que la fabrication des machines

#### **ROBLAND**

voldoen aan de volgende richtlijnen / folgende Bestimmungen entsprichen / comply with the following relevant regulations / sont conformes aux Normes suivantes:

Machine Directive 2006/42/CE - 2006/95/EC Low Voltage CE Directive

EMC Directive 2004/108/CE - EN 12100- Part 1 and Part 2 / EN 60204 Part 1 / EN 861

Nr. Serie

KM 775 - 785 0101012012-2031122012

Brugge 15/03/2011 Yves Damman

Aftersales

tevens gemachtigd om technisch dossier samen te stellen
also authorized to establish the technical file
également authorisé d'établir le dossier technique

auch ermächtigt die technische Unterlagen zusammen zu stellen



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#### 1 INTRODUCTION:

# 1.1 Purpose of the operating manual:

This manual is aimed at the operator and especially the personnel responsible for using the machine correctly and thereby achieving good safety at work. It is, then, recommended that the manual be read through carefully, paying particular attention to the sections on warnings, precautions and methods of use, and that it is kept close to hand for future reference, preferably next to the machine itself.

#### 1.2 Presentation:

KM 775 edge banding machines are automatic machines equipped with a bottom vertical gluing station, pressure rollers, front and back end trimming station, trimming station, radius scraper, polisher and both top and bottom corner rounding station, as well as a number of other features depending on version.

#### 1.3 Reference standards:

KM 775 edge banding machines are designed and built in accordance with the following standards:

- Directive community: 2006/95/CE, 2004/108/CE, 2006/42/CE
- Harmonized norms: EN 14121:2007, EN 60204-1:1999, EN 13849-1:2008, EN 953:1998, EN 1088:1996, EN 13850:2007

# 1.4 General warnings and recommendations:

Proper use of this machine involves perfect knowledge of these instructions for use and of all the risks arising out of improper use. The machine must therefore only be used by authorized personnel.

Safety when using this machine is only guaranteed for the functions and materials specified in these instructions for use. ROBLAND accepts no responsibility in cases where the machine has been used for purposes other than those indicated in and complying with these instructions for use.

ROBLAND accepts no responsibility in matters related with machine safety, reliability and performance in cases where the warnings and suggestions in this manual have not been respected, in particular concerning the activities of erection and assembly, use, routine and special maintenance and repair.

The electrical installation for the machine must comply with CEI 64.8 (CENELEC HD 384-IEC 408) standards. The machine builder renounces all types of responsibility in



cases where the machine has not been correctly connected to the earthed (grounded) equipotential installation, such that the protective devices behind the machine itself are not operative. For this reason, explicit reference is made to the entire contents of the chapter relating to the characteristics of the electrical installation.

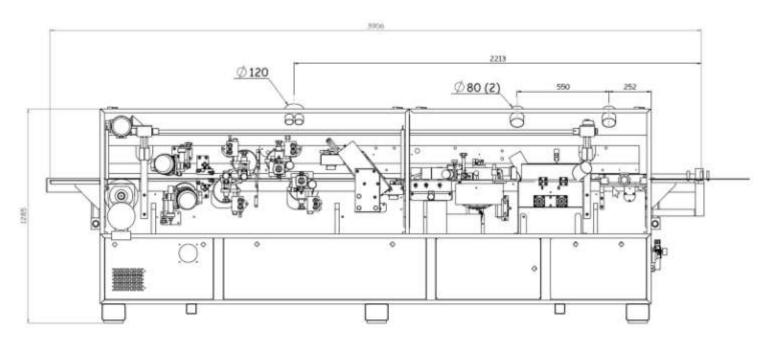
Original spare parts only must be used for special maintenance and repair work.

It is always advisable to contact our technical assistance service concerning repairs. The responsibility for perfect machine operation rests solely with the user, if the equipment has not been repaired or maintained by personnel authorized by ROBLAND.

# 1.5 Technical specifications:

Dimensions of machine:
 Dimensions of the edge banding machine it is shown in a following shape:

(Measures mm) 3780 x 1400



(thickness of machine ivariable, depending on the position of the apron to a maximum of 2030 mm)

- Weight machine: 1120 Kg.
- Dimension cable: Electric cable 5x4.
- Protection necessary for the installation of the machine: Automatic differencial swich pole 63 Amp. Sensibility 300 mA.
- Pneumatic pressure of work / maxim: 6 8 Kg/cm<sup>2</sup>. Consumption 4 L/min
- Diameter machine's mouth aspiration (1) 120 mm and (2) 80 mm.
- Air consumption Aspiration 800 m<sup>3</sup>/h. Speed min. 20 m/sec
- Noise emitted by the machine. Empty 81 dB(A), full charge 84 dB (A).



#### 2 MACHINE INSTALLATION:

# 2.1 General safety rules at the KM 775 edge banding machine installation:

- The person in charge of the machine must be instructed in how to use the machine correctly and informed of the relevant safety devices and tools and accessories.
- The devices fitted to the edgebander must be correctly set up and adjusted.
- The appropriate routine and special machine maintenance tasks must never be neglected.
- Before starting each job and before switching the machine on, check that the control and working stations are free from chippings of previously removed material.
- The machine operator must always wear suitable safety clothing bearing in mind the type of activity being carried out, protective gloves, safety footwear and spectacles or goggles for example. Remember never to wear clothing or objects that may get caught in the machine such as loose clothing, ties, watches, rings and so on.
- Before beginning any operation, check that there are no persons or other obstacles in the vicinity of the machine that may present a risk.
- Make sure the cable connecting the machine to the electrical supply is fully unwound and not coiled up.
- Do not situate inflammable substances near the machine to prevent the risk of an accidental spark causing fire or explosion.
- The machine operator must always consider the possible consequences before moving his hands towards the most dangerous zones.
- Never remove the yellow protections located on the gluing set, as they prevent the risk of burns to the operator.
- The operator must always be particularly careful when working the pedal that sets the machine into operation.
- Always keep the machine switched off when not in use.
- Do not enter, touch or handle zones where movements take place before switching the machine off.

#### 2.2 Limits of use:

This machine has been designed to work with the following materials:

- Solid wood
- Laminated or unlaminated chipboard
- M.D.F.
- Various compound materials, provided they are wood-based

The machines have been designed and built to work in closed industrial environments. Sitting the machine in an unsuitable location must be considered as improper use. The machines are not intended for edge banding materials other than those described, and any such use must also be considered as improper.



To trim edges made of the following materials:

- Laminated plastics
- ABS
- PVC
- Melamine products
- Wood band in roll form
- Strip up to 3 mm thick
- \* For max edge thickness. 3 mm, thickness max. board 40 mm.

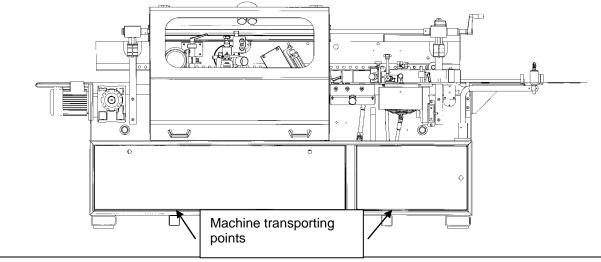
The command post of machine is easily accessible for workers, and is located outside danger zone for them. From that zone and to be in position to operate the controls, worker is the increased visibility of the machine, being away and protected from danger zone. The staff required for the work of the machine will be as maximum of two operators. One located at the entrance to introduce boards and other to collect boards mechanized. The space required for these, is found in paragraph 2.4. The connection of the machine should be carried out only by authorized personnel.

Before any handling in the machine and safety and proper functioning of the machine, must be read with care this manual.

# 2.3 Machine movement and sitting:

The machine must be lifted and transported taking into consideration that the support points must be as close as possible to the transporting bars. Take all possible precautions in machine lifting, handling and moving operations to avoid the risks of unforeseen movements which could endanger persons or property.

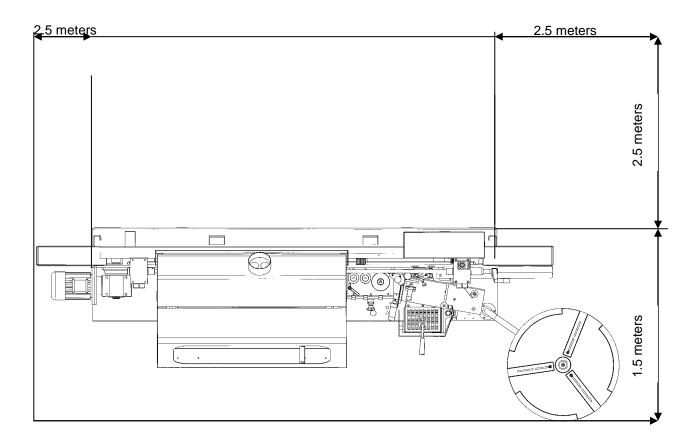
The machine must be sited on a flat surface able to withstand the weight of the machine. Site it in an optimum position with regard to operational requirements, where electrical connection is easy and with enough light to ensure that all parts of the machine are visible. If the machine is unstable once in position, the support bolts should be adjusted until the machine is stable and level.





# 2.4 Dimensions and safety zones:

The utmost care must be taken to avoid allowing objects that obstruct correct working from occupying the safety zones as detailed in the figure below.



#### 2.5 Electrical installation:

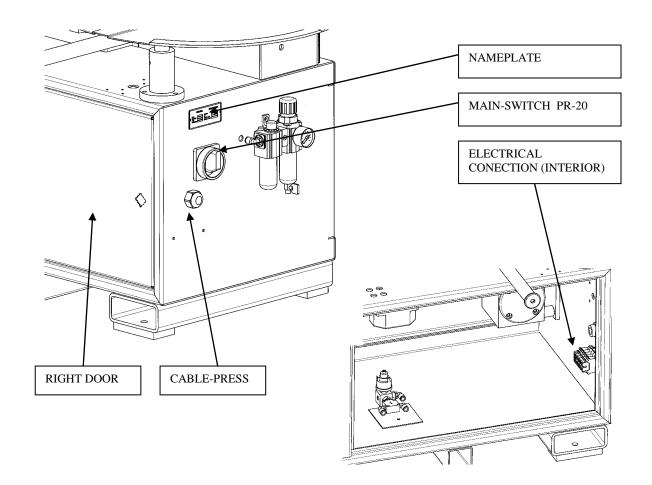
The electrical connection to the bottom right of the machine interior must be opened to make ready the electrical installation. It is recommended that the machine is not connected up the electricity supply until it is in its final position, and a check has confirmed that the line voltage is the same as that shown on the machine nameplate at the top of the main supply connection box. A check must also be made to confirm that the main electrical supply to be connected to the machine complies with the following safety requirements:

The installation must conform to IEC 408 standards.

Presence of earthed equipotential supply.

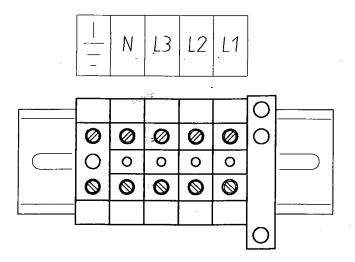
Presence of fuses or circuit-breakers to guard against short circuits on each conducting cable, except the earth and neutral cables.





To make the connection, insert the cables from the main supply in the four terminals L1-L2-L3-N, securing them with the cable-press and fixing the earth cable using the appropriate nut. Connection is via terminals, and the cable cross-section must be at least 6 mm.

If the chain turns in the wrong direction, change two phases in the terminal connection .



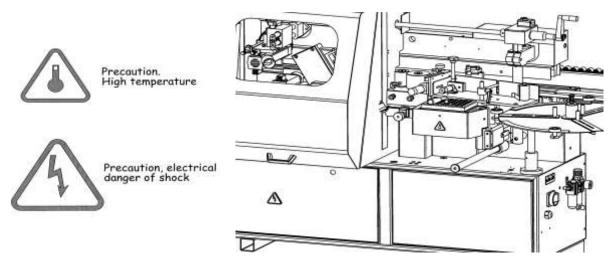
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#### 2.6 Pneumatic installation:

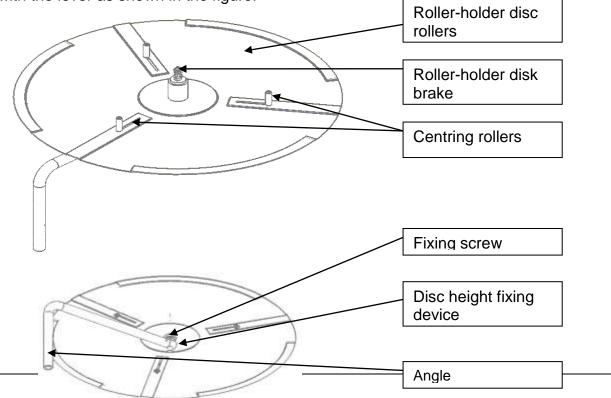
Connection to the line is made with a rubber or nylon tube of 6mm minimum inside diameter, 10/12mm being ideal. Connect the air service (FRL) unit using a minimum  $\frac{1}{4}$ " female fitting (supplied with the machine). Pressure must be at least 6 atmospheres, with a maximum of 7 atmospheres.

The air service unit consists of a Filter, to clean the air of dust and humidity capable of damaging the valves and seals on the pneumatic cylinders; a pressure Regulator to adjust the machine's working pressure to its optimum value.



# 2.7 Fitting the roll-holder tray:

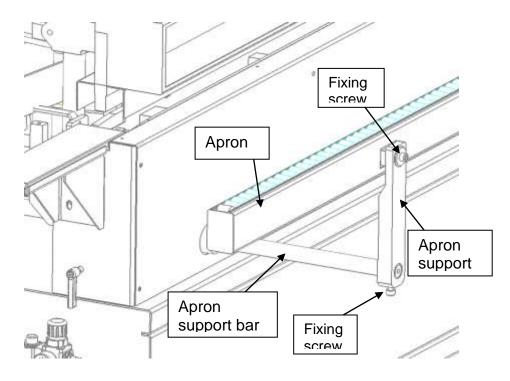
This accessory is supplied dismantled for transport purposes. Assembly consists simply of fitting the crosspiece to the angle, then inserting the roll-holder disc, securing it with the lever as shown in the figure.





# 2.8 Fitting the apron:

Insert the bars, fit the supports and finally fix the apron. Correct apron level is 1mm below the tops of the chain rollers, its function being to help to introduce the board. If at a level higher than the chain, it would put a slope on the board and spoil the finish on the final piece.

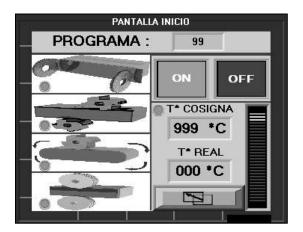


#### 3 SETTING UP AND STARTING THE MACHINE:

# 3.1 Control devices on the button panel:

Emergency button
Main voltage pilot
ON / OFF button at touch screen. See specific instruction manual.







# 3.2 Start-up and stop the machine

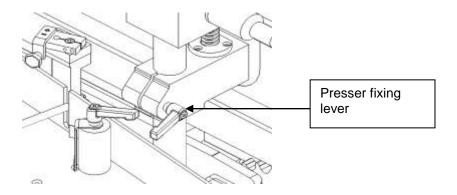
To start the machine, turn the main switch to ON. The general voltage pilot lamp must be illuminated.

BEFORE CARRYING OUT ANY TASK AT OR AROUND THE MACHINE, MAKE SURE IT IS COMPLETELY STOPPED, THAT IT CANNOT POSSIBLY MAKE ANY MOVEMENT AND THAT THE MICROSWITCHES CANNOT BECOME ACTIVE: DO THIS BY PRESSING ANY OF THE EMERGENCY STOPS.

- Make sure there is enough glue in the container for the job to be done.
- Operate the resistances On selector. (Q3)
- Select the desired working stations.
- Insert the strip as far as the first pressure roller.
- Adjust the height of the presser to suit the panel to be passed through.
- When the heating pot temperature reaches the set point figure, reset the machine by deactivating the emergency stop, then pressing the green reset button. The motors may now be switched on by pressing the motor On and chain activated buttons.
- The machine is totally stopped by opening the cabin, operating any of the emergency stops or turning the main switch to OFF.

# 3.3 Adjusting presser height:

The height of the presser needs resetting every time the thickness of the board to be edged changes. This simply involves loosening the levers on the presser fixing pads, and using the lever to raise or lower the presser to the required value as indicated on the numerical counter.

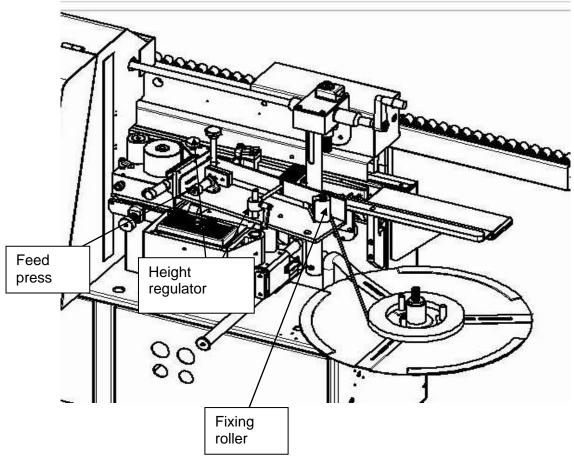


# 3.4 Loading and regulating the band in roll form:

To introduce the roll in the tray carries roll in having felt schedule, to go the first song by the fixation roller, until it surpasses the center of pressure roller. To adjust the



regulators of height of the song, leaving a small separation so that this it can move easily. Set the pressure on the feed press using the pressure regulator located on the door under the heating pot to a pressure of approximately 2,5 bar. To observe that so much the faucet of the piston of ribbon feeding as that of the cutter is open. Finally to adjust the pressure of the rollers of pressure by means of their regulators to the wanted



value, for further detail to look at "rollers base. To adjust the pressure of the cutter according to the thick of the material 2-5 bar.

# 3.5 Regulating surplus strip:

AT THE FRONT: The amount of surplus may be adjusted via the feed time regulator timer in the "CONTROL PANEL SCREEN":

- More time: more surplus at the front.
- Less time: less surplus at the front.

AT THE BACK: This involves regulating micro S-13.

- Moving the micro to the left increases the surplus at the back.
- Moving the micro to the right decreases the surplus at the back.



#### 4 WORKING STATIONS:

#### 4.1 PREMILLING STATION PF-12

Composed by two high frequency motors (200 Hz, 12.000 RpM) of 1,5 Kw e/o. to performance the pre-cleaning of the edge of the panel up to max. 3 mm of depth and 30 mm of height, before the gluing operation. To avoid chip, first motor turns in clock sense and second against.

#### 4.1.1 Depth regulation of the pre-trimming:

Adjust the readout onto the infeed fence. Be careful before to slack the fixing pawls.

#### 4.1.2 Adjusting the motor's premilling:

Take care of one motor commands over the another one, in this case the first one is the reference one and with the second one it should be taken the final trim, so it is important the adjustment to follow up the first one.

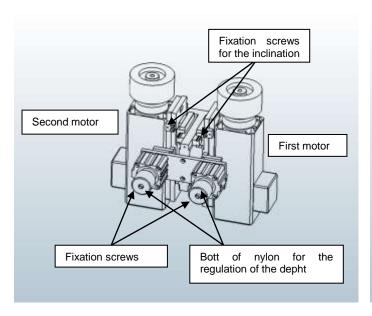
#### 4.1.3 Adjustment of the first motor:

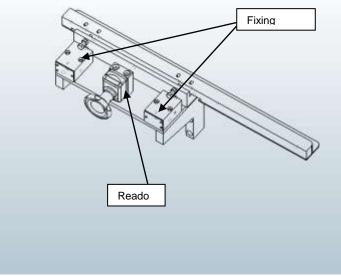
With the readout at zero. Feed a panel till the working line of the motors. Advance the motor till the cutting knives contact the panel edge. This means depth = 0. Second step is to check that the measure of the readout is correct. In doing so, give i.e. 0,5 mm to the readout and check that after running a panel the measure trimmed is 0,5 mm.

#### 4.1.4 Adjustment of the second motor:

As already indicated this second motors has to keep the reference of the first one. Adjust it by means of the nylon pome till getting a continuous trim from the first one.

In case the perfect perpendicularity between drag chain and cutter is not achieved, adjust the angle by means of the fixing screws.







#### 5 WORKING STATIONS:

# 5.1 Glue pot station:

This consists of a roller to glue the band. It must trace 2mm on the board and with no type of extra regulation must dispense the exact amount of glue on the different sizes of board, in terms of both width and height.

# 5.1.1 Dispensing glue:

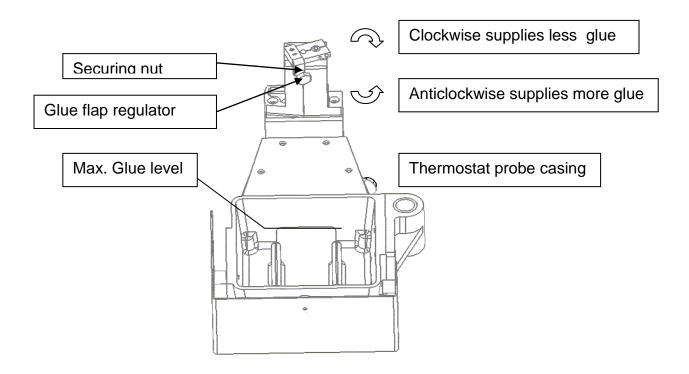
The thickness of glue on the dispensing roller is regulated by the regulator finger on the glue flap.

- TURNING CLOCKWISE REDUCES THE AMOUNT OF GLUE.
- TURNING ANTI-CLOCKWISE INCREASES THE AMOUNT OF GLUE.

•

#### 5.1.2 Glue level in the tank:

For correct operation, the level must not cover the access door to the inner tank, because if this happens the gases produced will only be able to escape through the glue nozzle, and this may cause irregularities in the amount of glue supplied to the edge. On the other hand, with a very low level the glue would burn, losing its properties and even



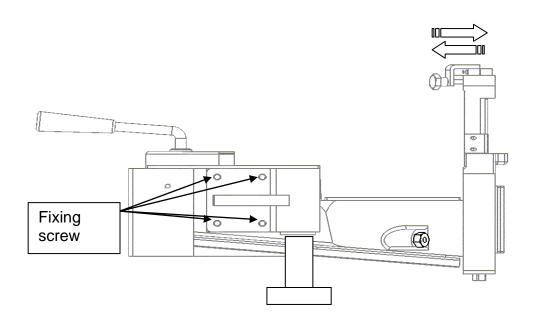
forming a layer of encrusted glue that would insulate the glue from the heating resistances in good conditions, leading to an increase in heating time.



#### 5.1.3 Setting up for correct gluing:

If the glue is not evenly dispensed after adjusting and checking the points above, for example if there are parts on the top without glue, the first thing to check is that the panel is being cut square. Then check that the scoring disc has not made too great an incision in the board. If neither of these is the problem, turn the glue pot fixing screws and slope the station forwards if there is not enough glue on the top, and backwards if there is not enough on the bottom. In other words, attempt to get the glue roller and board parallel to each other.

The best way of doing this is first to take the distance between glue nozzle and the wall of the presser, then to slightly loosen the glue pot fixing screws and slope the station as necessary. Then retighten these four screws and measure the distance between nozzle and presser again to check the inclination that the station has been given.



#### 5.1.4 Replacing heating resistances:

Once the tray has been withdrawn, to remove the pot first unplug and take out the thermostat probe, then simply lift until it comes out from the pot swing pin.

GLUE POT M5: From outside it is easier to access the fixing cover for the bottom and front heating resistances (N°19,22). Having extracted these and the cable through plate (n°42), there is full access to the resistances, which are protected by an asbestos sheet (N°20,23).

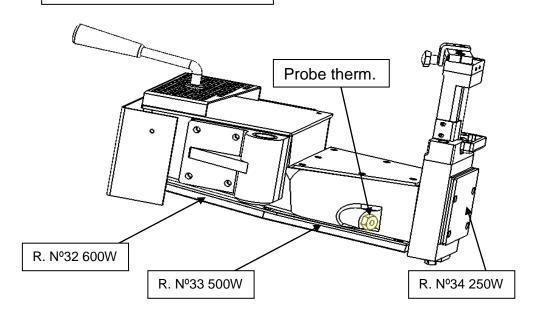
RESISTANCE Nº	RESISTANCE VALUE
32	600 W
33	500 W
34	250 W



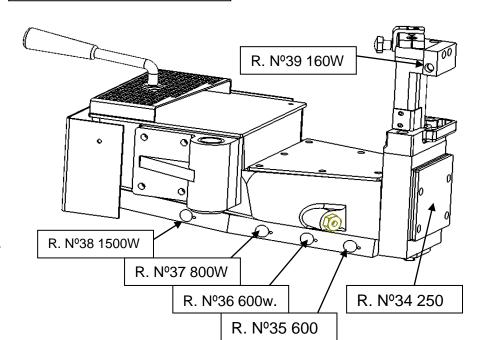
GLUE POT M5FR: Use the same method as for the above model, the only difference being that the quick melting pot consists of four tubular heating resistances on the bottom plate (N°35,36,37,38), a flat resistance on the front (N°34) and a further tubular one at the top of the glue nozzle (N°39).

RESISTANCE Nº	RESISTANCE VALUE
34	250 W
35	600 W
36	600 W
37	800 W
38	1500 W
39	160 W

# **NORMAL GLUE POT**



#### **QUICK MELT GLUE POT**





#### 5.1.5 Security:

When the edge banding machine alight, the glue pot station it is a high temperature, therefore misuse may cause severe burns. These burns could occur by direct contact with glue pot station or spill hot-melt glue. It may be recalled that the Hot-melt glue in a position to work is at a temperature of 200 ° C approximately. Therefore it is necessary extra precautions when handling the glue pot station.

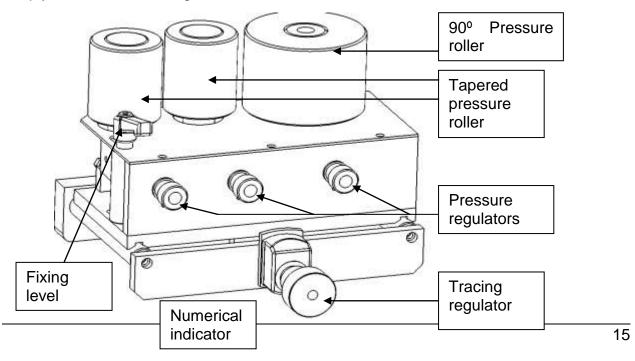
Only allow the use of the machine to authorized personnel. Glue pot station contains various safeguards to prevent inadvertent contact. These protections are in the machine properly marked in yellow.

The removal of any element of security installed in the machine absolve the manufacturer of liability for any damage.

#### 5.2 Roller base:

This consists of three rollers: one plane roller of larger diameter, and two smaller diameter rollers, one with a positive and the other with a negative taper.

Tracing on the panel with the edge already stuck must not be greater than 1.5mm. or 2mm to model according. There are three regulators to adjust pressure, one for each roller. Turning clockwise reduces pressure, while turning anti-clockwise increases it. As mentioned above, for correct edge banding tracing must not be excessive, as excess tracing not only causes the board to move, but also produces a small arc at both the entry and exit of the edged panel. Another small maladjustment that can cause the same problem is too much surplus edging band at the beginning and end of the panel; this should be the minimum possible (for adjustment, see "loading and regulating band in roll form"). When the thickness of the glued edging band is changed, simply slacken the fixing lever and enter the new measurement in the numerical





regulator. Turning clockwise moves the station back, while turning anticlockwise moves it forward.

To avoid the risk of damage, no type of rigid article (blades, chisels, etc.) should be used to clean the rollers. Any dirt that builds up should be removed with a cloth soaked in solvent or other cleaning product.

#### 5.2.1 Security:

For proper handling and cleaning of roller base it is essential disconnection the drag chain, through the selector box controls. Otherwise can cause damage by trapping on the fingers. Roller base are protected to prevent damage by inadvertent contact.

The removal of any element of security installed in the machine absolve the manufacturer of liability for any damage.

# 5.3 V-7 end trimming station:

This is driven by a high frequency by two motors (200Hz, 12000 r.p.m.) rated at 0'35 kW, and its task is to trim off the surplus edging band at both front and back.

#### **5.3.1 Pneumatic regulation:**

There are three pressure regulators for pneumatic regulation.

MR1	1.4 atm.	Front end trim Contra-pressure
MR2	2'7 atm.	Front end trim
MR3	4 atm.	Rear end trim

Operation is as follows:

- When the board activates micro S-14, pressure from MR2 enters from the bottom
  pushing upwards. This is equivalent to the pressure through MR1 from the top pushing
  downwards, plus the weight of the motor; the result is that the station moves up
  slightly, waiting for the board to contact the tracer.
- The pressure exerted by the board on the tracer is minimal, it has to be just enough to ensure that the tracer and board remain in contact.
- The station moves up and the cut is made until the detector in the piston (S-30) is activated to indicate that the cut has been completed. At this point, the pressure of MR1 acting from the top down disappears, so that the motor rises much more quickly and separates the tracer from the board. This means that it is no longer the panel pushing and lifting the motor, thereby avoiding the risk of the end of the tracer damaging the edge of the board. At this point the front end trim is immobile.
- During the advance of the board it releases the micro-switch S-14, when this happens, the rear tracer, contact the board and rear end trim starts to move upward thus causing the back cut the surplus of the edge.
- The station moves back to its original position.



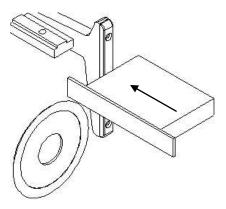
#### 5.3.2 Security

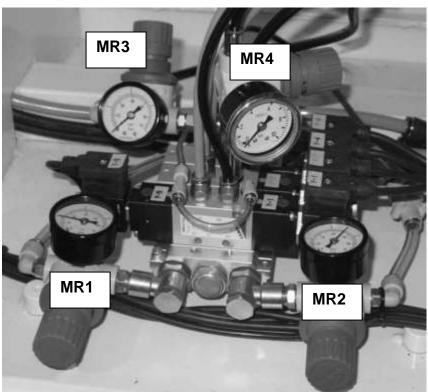
End trimming station has two blades court under a misuse of the group could cause serious damage. Therefore, for proper handling end trimming station it is essential disconnection of the same. The group incorporates within its programme of

work some security systems, which assure us that of having any improper working conditions

The removal of any element of security the machine absolve the manufacturer of any damage.







#### 5.3.3 Safety systems:

Within its work program, the station incorporates some safety systems which guarantee that in the event of an inappropriate working condition, the machine stops its task or even stops altogether to avoid damage.

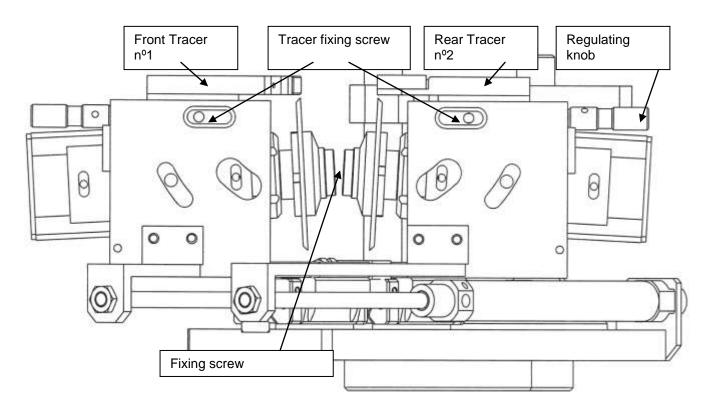


#### **5.3.4 Working limits:**

The minimum distance between boards must be respected. This is shown on the sticker on the side of the machine: when the back of the board reaches this sticker, the next board can be introduced.

#### 5.3.5 Mechanical regulation:

After pneumatic regulation, to make the cut attention must be given to the tracers. If front trimming has to be adjusted, it is tracer no 1 that has to be moved; first slacken the tracer fixing screws, then turn the regulating knob in direction clockwise for the tracer to move in, so that the disc will cut more, or alternatively in direction anticlockwise to move the tracer out and cut less. If adjusting the back cut, the fixing screws on tracer no 2 must be slackened in order to turn the regulating knob "clockwise" for the tracer to move in and cut more, or in direction "anti-clockwise" for the tracer to move in and cut less. The fixing screws must always be firmly tightened after adjusting either of the two tracers. Also, never loosen the four fixing screws at the same time; first adjust one tracer, then the other one.



# 5.3.6 Replacing the end trimmer discs:

First make completely sure that the machine is totally at rest and turned off at the main switch. Then lock the motor with the key supplied, and remove the fixing screw to free the bush and disc. After changing discs, always check that the fixing screws are firmly tightened.



# 5.4 Trimming station JC-5:

This is driven by two high frequency motors (200Hz, 12000 r.p.m.), each rated at 0'35 kW. The station is used to trim the excess strip at both top and bottom exactly, and to provide a radius or flat finish by a simple, easy adjustment.

# 5.4.1 Adjustment with flat cutters:

One must keep in mind that for the design of the group the motor will always remain in horizontal position, that is to say, 0°.

For the adjustment you must verify that the group makes so much the one copied vertical as horizontal when passing a panel. To adjust the one trim in the superior group you should act on the vertical regulator of the tracer one, the one which if one makes rotate in having felt clockwise it makes go up the tracer one with what the cutters trims more and if one makes rotate in having felt anti-clockwise the tracer one vertical low with what trims less. For the one recast inferior it should be kept in mind that when making rotate the vertical knob regulator of the tracer one in having felt clockwise the copying one vertical it ascends with what trims less and when making rotate in having felt anti-clockwise the tracer one vertical low with what trims more. next by means of the horizontal knob regulator of the tracer one to make it rotate in having felt schedule so that the tracer one is delayed, being the discovered cutters, with what trims more, or in the case that is wanted that it trims less to rotate this same knob in having felt anti-clockwise so that the tracer horizontal advance.

Due to the position of the motor the regulation of the one trim of radios it was carried out by means of the vertical adjustment of the tracer one and the knob regulator of the motor until getting the wanted radius.

#### 5.4.2 Replacing cutters:

To replacing cutters, first disconnect completely the machine with the general switch, to remove the electrical connectors and come in the following way:

Hold the motor firmly with a hand and with the other one it loosens the Screw fixing motor plate completely.

Without loosing the motor it loosens the knob motor regulator completely and move away it following the plate guided to avoid the contact of the cutters with the tracer.

Once it left they can extract the cutters easily with the given tools.

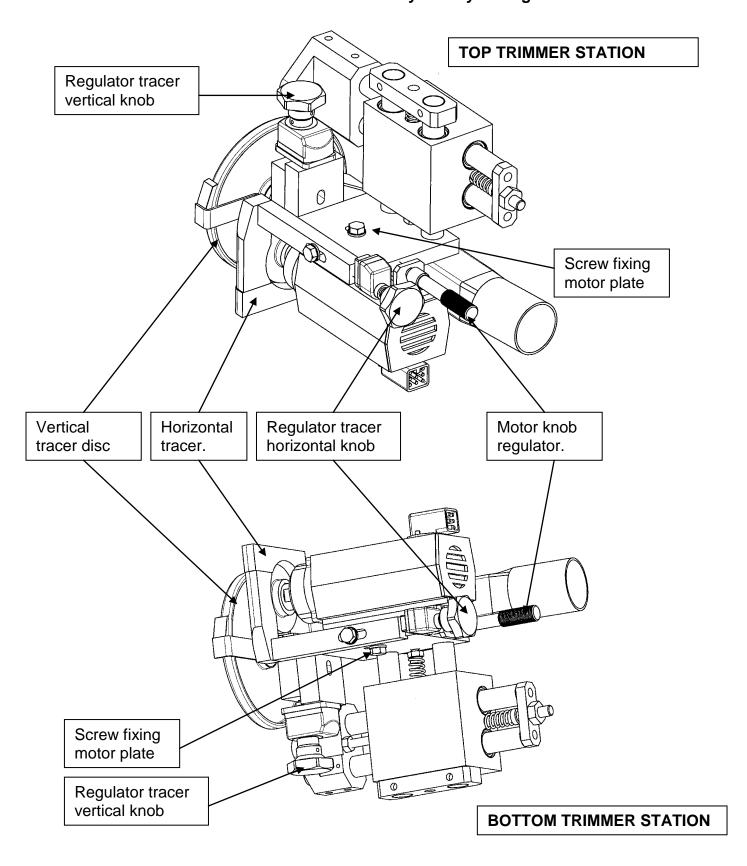
Remember that when mounting the motor again after the cutters change it should make coincide the plate correctly of having guided to avoid a possible break of the cutters in the event of making contact with the tracer.

#### 4.5 Security

Trimming station has two blades court under a misuse of the group could cause serious damage. Therefore, for proper handling trimming station it is essential disconnection of the same. The group incorporates within its programme of work some security systems, which assure us that in the case of having any improper working



conditions annulling. The removal of any element of security installed in the machine absolve the manufacturer of liability for any damage.





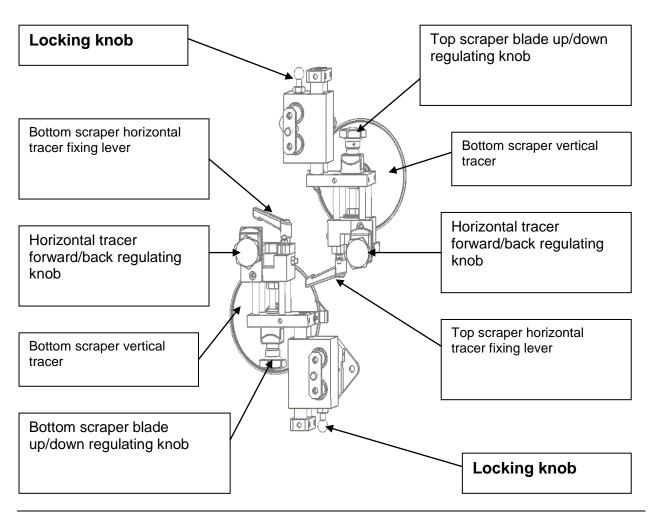
# 5.5 Radius Scraper station RB-8:

The scraper is used for removing the small undulations that the trimmer cutters may leave on the PVC edging band, providing an even finish. Its operation is very similar to that of the trimmer, in that it has horizontal and vertical tracers, the only difference being that it works the band with a blade rather than a motor with its cutter.

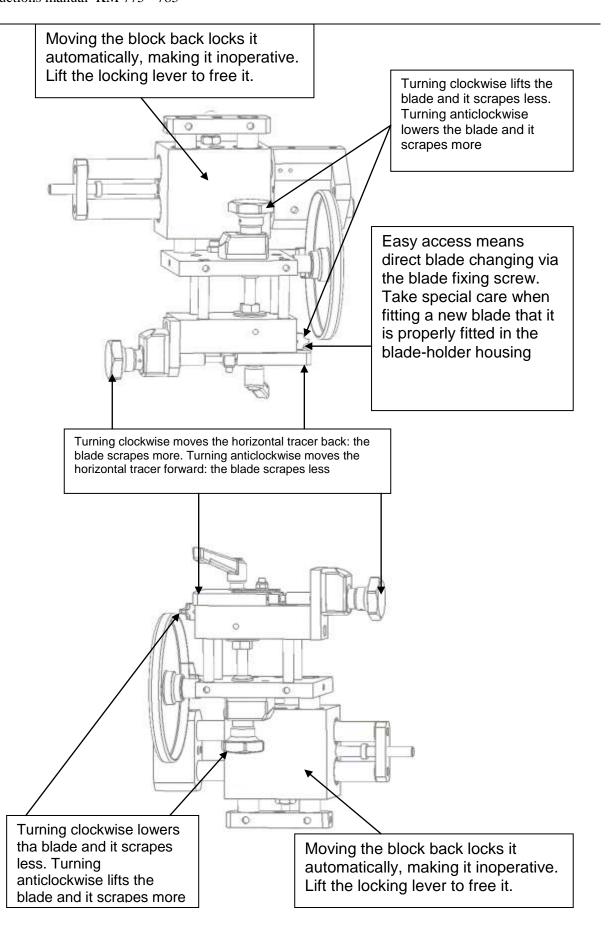
SCRAPER ADJUSTMENT: First select the station, checking that it is not locked by the locking knob. Pass a panel through to check that the station makes the tracing movements both vertically and horizontally. This tracing must not be greater than 2mm.

The horizontal tracer has to be moved to obtain the required radius. Moving this tracer forward means the blade scrapes less, while moving it back scrapes more. First slacken the fixing lever on the horizontal tracer, then turn the tracer regulating knob clockwise to move the tracer back, or anti-clockwise to move it forwards. If horizontal tracing is lost or excessive it must be adjusted using the tracer dead stop.

When the radius is as required, all that is needed is to adjust the top of the radius via the knob that regulates blade lifting and lowering, as in this case the vertical tracer is fixed. For the top scraper, turning clockwise lifts the blade and it scrapes less. Conversely, turning anti-clockwise lowers the blade so that it scrapes more. At the bottom the reverse is true, in that clockwise turning to lift the blade scrapes more, while anti-clockwise turning lowers it and it scrapes less.









# 5.6 Flat Glue Scraper (Option)

This unit is designed to clean up the glue surplus, which remains on the panel after the Top&Bottom trim station.

#### 5.6.1 Glue scraper adjustment

Make sure the straight scrape station is not fixed in position by the locking pins. Run a panel true the edgebander, stop it in the scrape station and check that the station has additional copy movement (X and Y axis). This movement should not be in exes of 1.5 mm

#### 5.6.2 Regulation of the tracing tension

Restraining/release of the spring will in/decrease the unit's tension towards the panel. To adjust the spring loosen the spring lock nut and adjust the screw to the desired position to increase or decrease the tracing pressure.

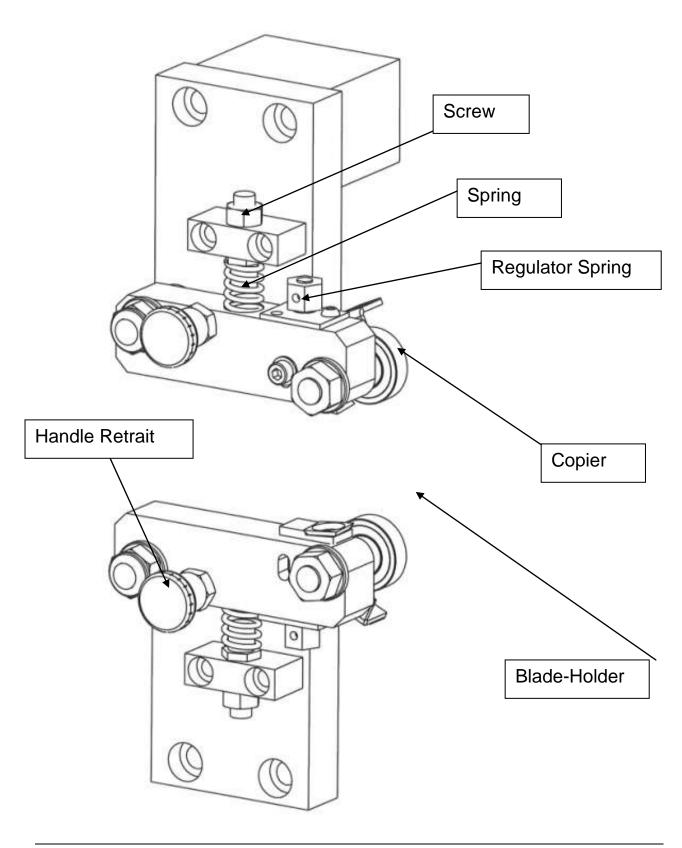
#### 5.6.3 Scraping depth regulation

In order to regulate the scraping depth you have to unlock the locking screw of the blade-holder. For increase of the scraping depth, turn the handle clockwise, for the top glue scraper or counter clockwise for the bottom glue scraper. To decrease the scraping depth, turn the handle counter clockwise, for the top glue scraper or clock wise for the bottom one. Once you achieved the desired scraping depth, lock the blade holder with the locking screw.

#### 5.6.4 Disengagement of the glue scraper unit

To disengage the glue scraper you have to unlock the locking screws of the blockage stop and advance the blockage stop to the bottom of the column flange, as you release the unit, the blockage stop will hold it in the disengaged position. After this, tighten the fixing screws to avoid any movement of the blockage stop. To engage this unit, reverse this process.







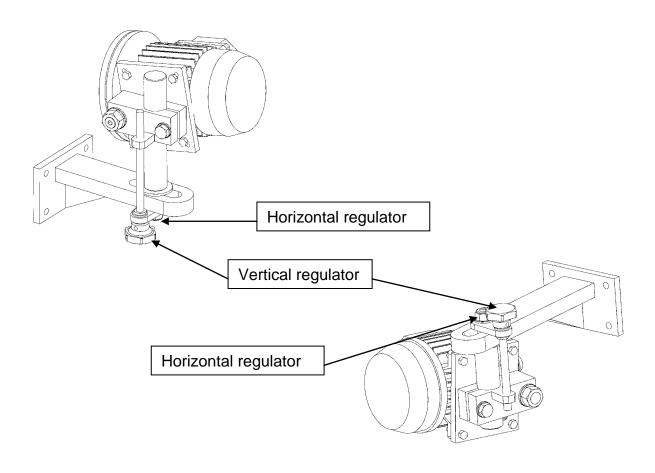
#### 5.7 Polisher station PC-9:

This consists of two motors which may be fitted with a large variety of polishing cloths to adapt the station to the specific requirements of each particular job.

It moves forward or back after slackening the horizontal movement fixing lever. To move it vertically, slacken the vertical movement fixing nut and slide it along the guide. Put in an inclined position if required, after first slackening the inclination fixing nut.

Slacken the polishing cloth fixing screw to free it for replacement.

#### **TOP POLISHER**



**BOTTOM POLISHER** 



#### **6 MAINTENANCE:**

- THE MACHINE MUST BE FULLY DISCONNECTED BOTH ELECTRICALLY AND PNEUMATICALLY BEFORE UNDERTAKING EITHER ROUTINE OR SPECIAL MAINTENANCE WORK.
- THIS PROCESS SHOULD BE CARRY OUT BY WELL EDUCATED WORKER.

#### 6.1 Routine maintenance:

The maintenance below is carried out daily before running the machine, and consists of:

- Before starting the machine, check that there is nothing obstructing movement of the station and motors that could lead to damage or personal injury.
- Check that pressures are correct.
- Make sure that all micros (the rods) are correctly positioned (vertically, waiting to contact the work piece), that they are firmly tightened and that they move as they should.
- These maintenance points are carried out at the close of each working day:
- Clean the work zone.
- Make sure that the main supply cable shows no signs of cuts or burning.
- Check the condition of cutters and tracers.
- Check the oil level in the air service unit lubricator reservoir.

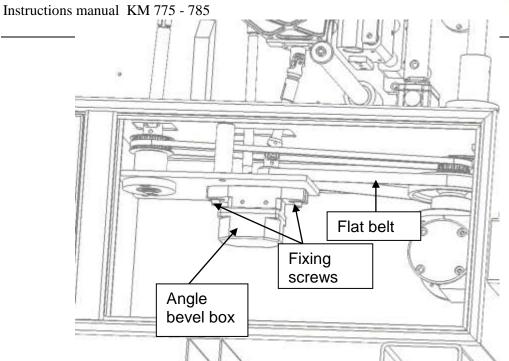
# 6.2 Special maintenance:

This maintenance is carried out weekly:

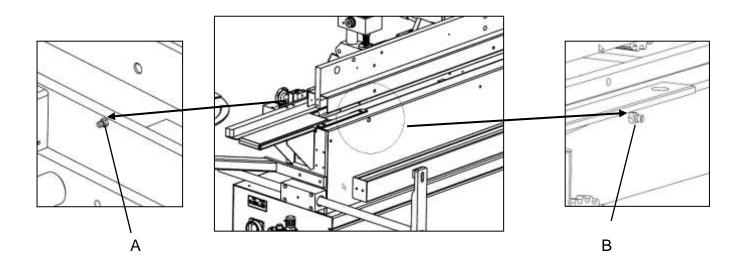
- Carry out all routine maintenance operations.
- Check the safety of the electrical installation.
- Check locking of mechanical components.
- Examine cable insulation, operation of devices and continuity of protective conductor.
- Check the cutters for wear.
- Clean the chain wheels and rubbers with a cloth dampened with neutral solvent (that damages neither silicon nor rubber). Do this after lifting the presser, having completely stopped the machine.
- Use a little machine oil (SAE-10) and a cloth to clean the tracer bearings, then dry off and apply a thin film of grease.
- Check the condition and tension of the transmission pulleys inside the cabinet under the tray and glue pot.
- Transmission set: This refers to all the equipment under the glue pot whose function is the synchronised transmission of chain movement to the glue roller, band feed system and first press roller.

Belt condition and tension needs periodic checking. The flat belt is tensioned by simply loosening the fixing screws and moving the angle bevel box to achieve the required tensioning.





 Lubricate the transport guide: With the machine running, using guns operated manually by the operator, which must be connected to the Oilers A and B. Use oil with a viscosity of 160 cSt at 40 ° C (MOBIL MOBILUX EP 0).





#### 7 TROUBLESHOOTING:

#### 7.1 Machine does not start:

- Check the machine air inlet pressure (it must be between 6 and 7 bar). If it is lower than 4 bar for even a moment, the machine will stop or fail to start.
- Check that the emergency stops are not activated (the two at the presser ends). If so, turn them smoothly to deactivate them.
- The cabin must be completely closed for the cabin micro to allow machine start-up.
- Having checked these external points, access the electrical panel and first verify that the pilot on PLC 01 INPUT is illuminated. If not, it means the machine is not starting because one or more of the safety systems is activated. After checking these, the only remaining check is on the thermal cutout relays. To do this, press the reset buttons; any making a different noise indicates that this particular relay was activated. Make a note of the number (e.g. F-14), and check on the power diagram to see which motor it is protecting. Then examine the motor involved, as a thermal cutout trips because of overworking, unsuitable working or very poor tool condition (the relay is set to the rated consumption of the motor it is protecting, and trips if this consumption is exceeded to avoid damaging the motor).
- Check the fuses and input voltage.

# 7.2 Irregular band feed:

- First check that machine air inlet pressure is correct (between 6 and 7 bar).
- Carry out a feed and check that the pressure supplied to the pressure piston is approximately 0.9 bar as measured on pressure gauge MR-3 (bear in mind that this usually reads zero, and only gives a pressure reading when actually being supplied, for a time of about 1.5 seconds). If air pressure is too high, the edge is compressed so much that it cannot move forward properly, while insufficient air pressure means the weight of the strip can't be pulled through.
- Check the condition of the angle bevel box transmission pulley, as it will very probably need tensioning (follow the instructions given in the special maintenance section).
- Feed rollers in poor condition or not correctly positioned (check they are properly fitted in their securing slots).
- Make sure the roll of edging isn't obstructed in any way that prevents it moving normally (e.g. small strips of adhesive tape stuck to the bottom of the roll and difficult to see at first sight).

# 7.3 The end trimming station moves the piece when the board is passed through it:

- First read the "V-7 End trimming station" section carefully and check that all pneumatic pressures are correct.
- Disconnect air pressure from the machine and verify manually that the station makes all its movements smoothly.
- Clean the carriage guide bars and tracers with a cloth dampened with machine grade oil, then dry off to avoid dirt sticking to them.



• As described in the special maintenance section, the wheels and chain need cleaning to prevent any loss of adhesion.

# 7.4 Router trimming diminishes:

- If both chain and wheels are dirty and covered with a layer of dust, they lose their adherence, and bearing in mind that all the stations exert pressure on the board, in the end it is expelled and the tracing station is lost.
- If dirt on the chain and wheels or poor trimming station adjustment means that
  when the board arrives it is moved, then the start of routing will be traced (trimmed
  correctly) but as the board passes through it will lose the tracer due to following a
  non-parallel line. In the end the cutter will be so far separated that proper trimming
  will be impossible.

#### 7.5 The board moves:

- As the above points have shown, keeping the chain and wheels clean is very important for the piece to keep to the same line. On occasions, when it moves the presser tends to drop. It is certainly possible to tighten a millimetre more with respect to the panel measurement, especially with small pieces, but more than one millimetre would mean overloading the drive motor, possibly to the extent that the thermal cutout trips due to motor overheating. The presser wheels and rubbers would also experience excessive wear, when the solution is simply to clean them.
- It is very important to keep the presser fixing levers tightened to avoid the presser lifting as the board passes through, leading to a loss in pressure making the board very liable to move.
- Check pressure roller tracing. See the "Pressure rollers" section for further details.

# 7.6 Uneven gluing:

- Read the "Glue pot station" section carefully.
- Check the condition of the glue.
- Check tracing and glue pot pressure. If more tracing is needed, make sure that none of the stations is moving the board before touching the tracer stop screw (see "The board moves" section for further details).

# 8 INVERTER PARAMETERS

#### END TRIM – TRIMMING

PARAMETERS	VALUE
P-01	200
P-03	5
P-04	2
P-07	0
P-08	7



P-09	200
P-11	7
P-14	101
P-15	9
P-17	4
P-20	200
P-32	1
P-34	1
P-38	1

#### **PREMILLING UNIT**

PARAMETERS	VALUE
P-01	180
P-03	5
P-04	2
P-07	0
P-08	7
P-09	200
P-11	7
P-14	101
P-15	9
P-17	4
P-20	180
P-32	1
P-34	1
P-38	1

#### DRAG CHAINE 2 SPEED. (9-14) 1.5kw

PARAMETERS	VALUE
F-02	1
F-03	49.0
F-05	230
F-06	230
F-07	1.00
F-08	1.00
F-11	9.00
F-12	1.0

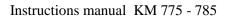


F-15	49.0
F-16	31.5
F-37	2
E-27	1099
E-46	4
C-05	31.5
C-07	49
P-03	9

#### 9 PNEUMATIC SKETCH

#### 9.1 PNEUMATIC SCKETCH NOMENCLATURE

REFERENCE	DENOMINATIÓN	FUNCTIÓN
CA	Cylinder	Press the strip against the feeding roller
CC	Cylinder	Activate the trim cutter
CL1	Cylinder	Up / Down end trimming
CL2	Cylinder	In / Out end trimming
LLp	Step key	Short the step air of the cylinder to the feeding and the cutter.
Er 1,5 Er 1,6	Speed regulator	Regulate speed to the cylinder cutter
Er 1,3 Er 1,4	Speed regulator	Speed regulators to the cylinder In / Out end trimming.
Re 1,1 Re 1,2	Adjustable filter	Regulator of the exit air to the end trimming circular saw.
Mn 1.1 Mn 1,2	Manoreducer	Regulator pressure cylinder trim to the end trimming circular saw.
Er 1,1 Er 1,2	Fast exhaust	Cylinder pressure discharge.
Y1	Electrovalve	End trimming up to trim.
Y3	Electrovalve	End trimming down and pressure discharge.
Y2	Electrovalve	In / Out end trimming.



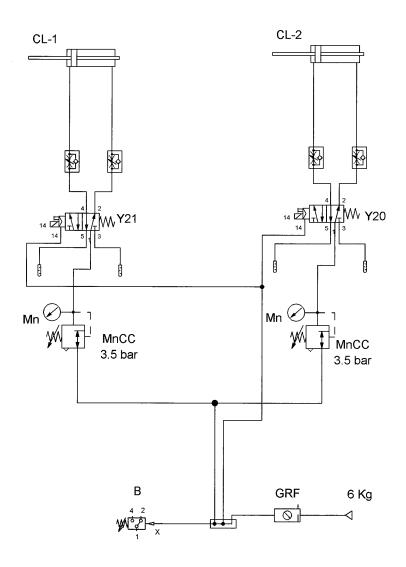


Y4	Electrovalve	Cutter trim conection.
Y8	Electrovalve	Material feeding conection.
S30	Magnetic detector	Conection pressure discharge.



Perfiladora delantera Front pre-milling station Pré-fraisage d'entrée avant Vorderes fügefräsaggregat

Perfiladora trasera Rear pre-milling station Pré-fraisage d'entrée arriere Rückwärtiges fügefräsaggregat



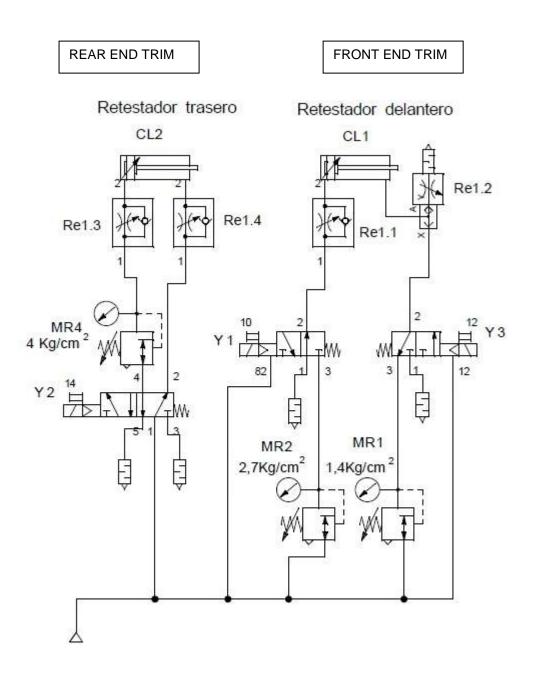
Pre-milling station. Pneumatic sketch.
Schéma pneumatique pré-fraisage d'entrée.
Fügefräsaggregat. Pneumatikschaltplan.



CUTTER FEEDING alimentador cortador cc CA Mn 4 Mn 3 MR. MR 3 2 5 1 3

## FEEDING STATION REFERENCE 560 20 01N





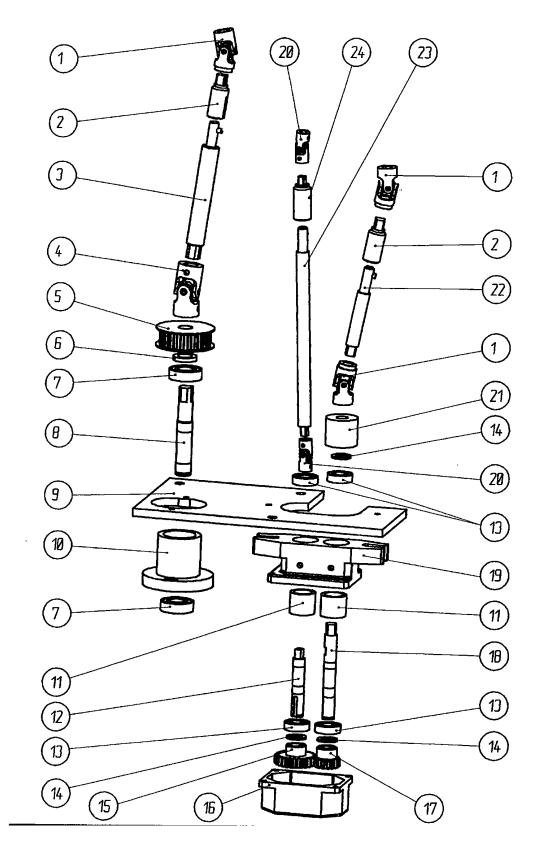
### END TRIMMING STATION REFERENCE 062 06 01N



### **10 SPARE PARTS**

	SPARE PARTS DRIVE GEAR BOX			
Nο	Description	N° piece		
1	Universal joint	5412221201		
2	Glue tank sliding fit	1000409		
3	Drag roller driving shaft	0600307		
4	Universal joint	5412921601		
5	Pulley 24 L 075 F	1000430		
6	Washer distancing	1000403		
7	Bearing	6004-2RS		
8	Pressure roller driving shaft	1000404		
9	Driving plate	0600401		
10	Drag roller bearing support	1000401		
11	Socket for bearing	1000425		
12	Infeed roller drive shaft	1000410		
13	Bearing	6002-2RS		
14	Washer	0600315		
15	Gear Z 25 M 2	1000428		
16	Drive gear box	1000421		
17	Gear Z 15 M2	1000427		
18	Glue roller drive shaft	1000407		
19	Roller-bearing forward-shaft	1000424		
20	Universal joint	5411620801		
21	Glue tank drive pulley	1000411		
22	Glue tank drive shaft	0510504		
23	Feeding roller driving shaft	0510505		
24	Feeding roller sliding fit	1000413		



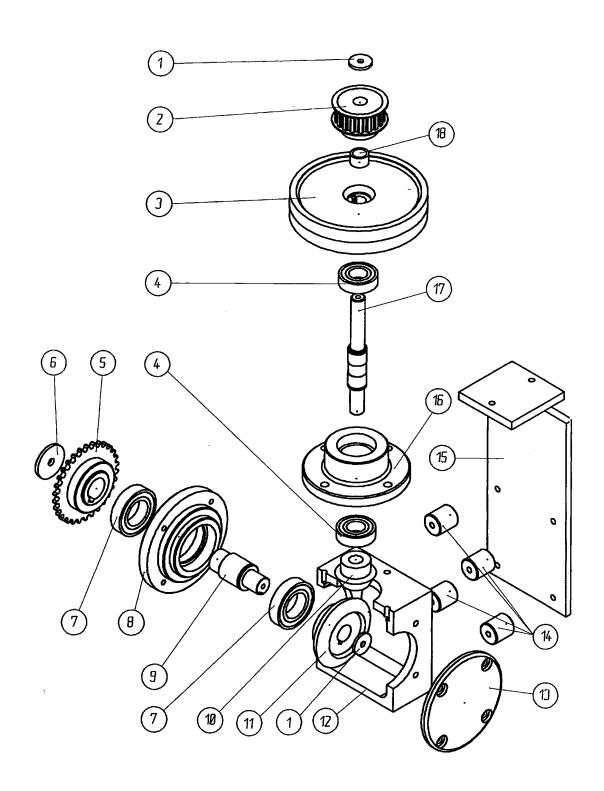


**SPARE PARTS DRIVE GEAR BOX 0600400A** 



SPARE PARTS ANGULAR GEAR BOX				
Nº	DESCRIPCION REF			
1	Washer D6*D25*3	0510613		
2	Pulley Z 18 L 075 F	1000109		
3	Drive-pulley	1000415		
4	Bearing	6004-2RS		
5	Infeed gear drive	0510605		
6	Washer D8.5*D40*4	1000814		
7	Bearing	6006-2RS		
8	Chain gear support	0510606		
9	Chain gear shaft 0510607			
10	Drive gear Z 20 M 2	1000111		
11	Drive gear Z 40 M 2	1000107B		
12	Outlet gear box	0510612		
13	Gear box lid	0510608		
14	Support separator	0510602		
15	Angular gear box support	0510601		
16	Outlet bearing support	0510610		
17	Bearing shaft	0510611		
18	Socket D 20*D 15.1*12	0510603		



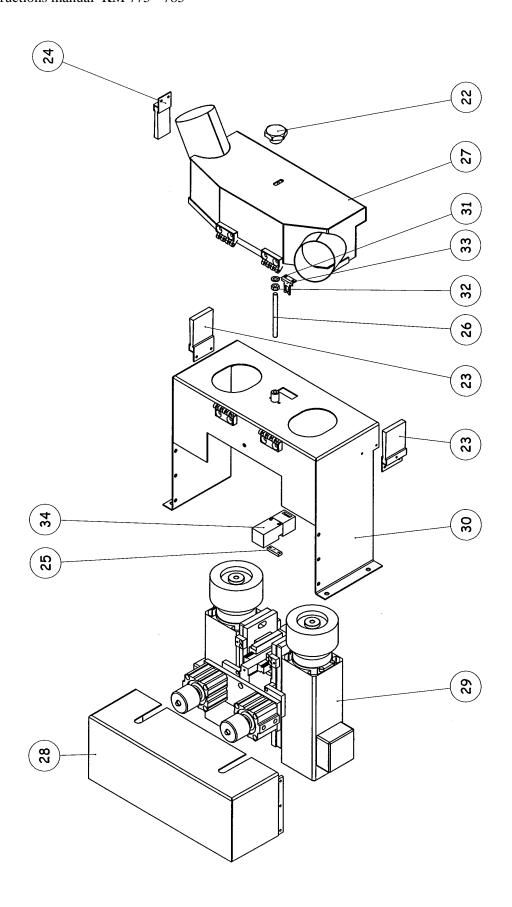


## **SPARE PARTS ANGULAR GEAR BOX 0510600A**

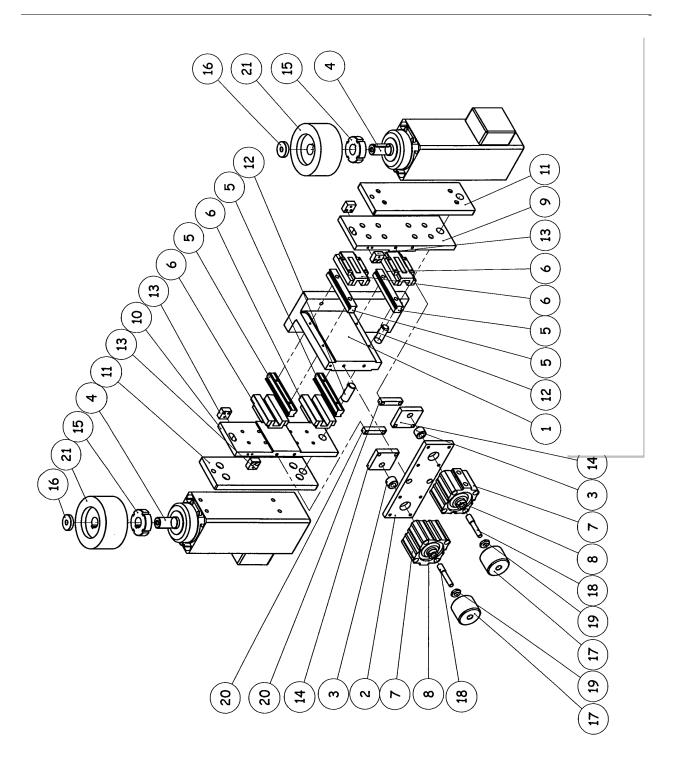


SPARE PARTS PRE-MILLING UNIT PF-12			
Ν°	Description	Ref.	
1	Unit and guides support	1122617	
2	Cylinder support	1122618	
3	Cylinder divider	1122619	
4	Pre-milling motor	2002601	
5	Skate guide	20026021	
6	Guide	20026022	
7	Pre-milling cylinder	20026031	
8	Extend cylinder	20026032	
9	Right guide base	2002608d	
10	Left guide base	2002608i	
11	Motor sheet	2002609	
12	Motor sheet shaft	2002610	
13	Motor regulation top	2002611	
14	Cylinder link	2002613	
15	Cutter block bush	2002615	
16	Washer	2002616	
17	Cylinder regulation handle	2002622	
18	Cylinder regulation shaft	2002623	
19	Regulation shaft nut	2002624	
20	Cylinder link distancer	2002626	
21	Cutter block	fresa leitz	
22	Handle	1122-M8	
23	Cabin bottom brush	1122615	
24	Cabin top brush	1122616	
25	Security microswitch fixer	1122622	
26	Delayed opened shaft	1122626	
27	Pre-milling top cabin	1122629	
28	Pre-milling front cabin 1122630		
29	Pre-milling PF-12 1122631		
30	Pre-milling bottom cabin 1122632		
31	Washer M8 *		
32	Nut M8	*	
33	Security microswitch key	*	
34	Security microswitch	*	





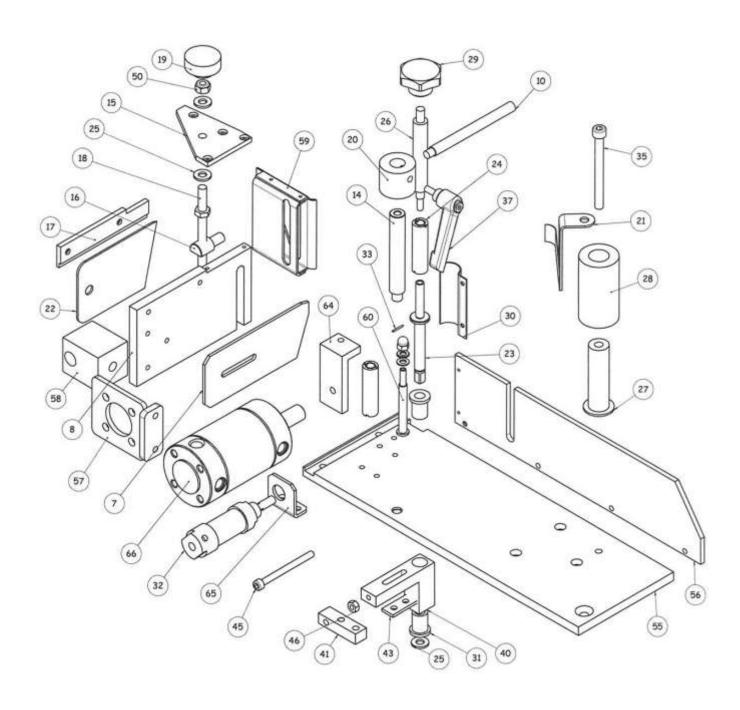






Posición	Cant.	Referencia	Denominación	
7	1	0700216	Estrangulador	
8	1	0700217	Placa Base Montaje Cortador	
10	1	0700225	Varilla regulacion altura tira	
14	1	1000047	Eje rodillo	
15	1	1000213	Soporte Boquilla	
16	1	1000214	Guia Salida de Tiras	
17	1	1000218	Guia Cortador	
18	1	1000221	Varilla Regulación Guia Salida	
19	1	1000223	Pomo Regulación	
20	1	1000226	Casquillo guia	
21	1	1000229u	Fleje rodillo guia USA	
22	1	1000235	Cuchilla / Cortador	
23	1	1000238	Eje rodillo alimentador	
24	2	1000239Ь	Rodillo Alimentación (Caucho)	
25	3	1000250	Arandela Latón Ø17	
26	1	1000283u	Extremo Volante	
27	1	1000285	Eje rodillo	
28	1	1000286u	Rodillo	
29	1	1122	Pomo	
30	1	2000208	Protección cojinete alimentación	
31	2	B101520-203	Casquillo	
32	1	CF-006342	Cilindro	
33	1	DIN1481	Eje	
35	1	allenM8×85	Tornillo allen	
37	1	manetaM6	Maneta	
40	1	0700205α	Escuadra fijacion	
41	1	0700237	Guia Regulador	
43	1	0700238	Escuadra Fiajación	
45	1	allenM6×70	Tornillo Allen M6 × 70	
46	1	hembraM6	Tuerca M6 - DIN 934	
50	1	autobloc M8	Tuerca	
55	1	5700212p	Placa bandeja	
56	1	5700202p	Placa fondo	
57	1	0700282	Soporte cilindro cortador D60	
58	1	1000275	Prensor cuchilla cortador especial	
59	1	1000279	Boquilla salida	
60	1	9120231B	Eje prensor alimentador	
61	1	hembra ciega M6	Tuerca ciega	
62	1	arandela latón M6 Arandela Latón		
63	1	arandelaM6		
64	1	9120203f		
65	1	9120222	Escuadra fijación cilindro	
66	1	27U2A63A0025	Cilindro	



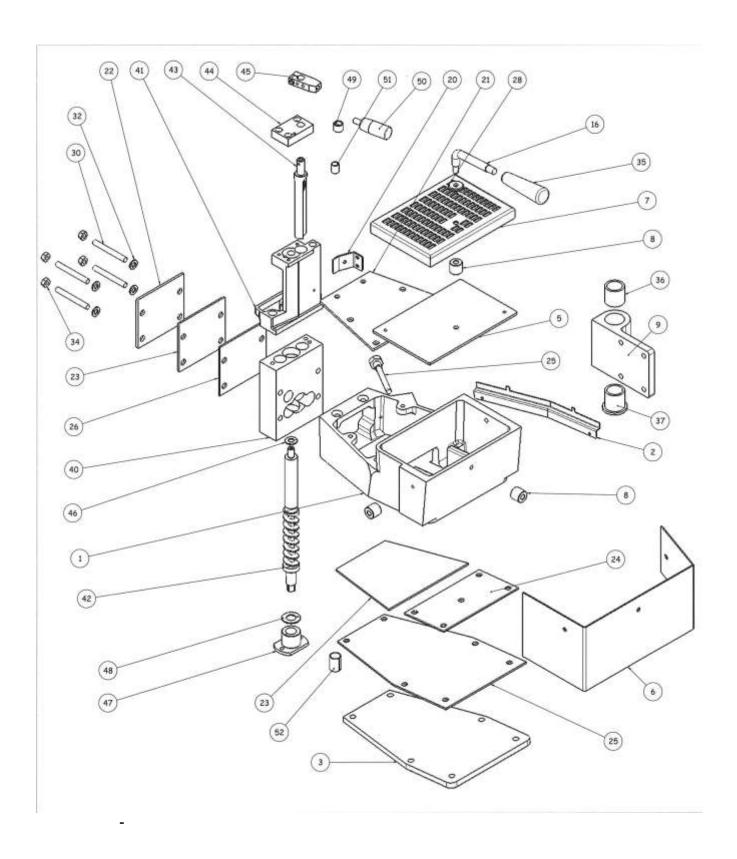


### **SPARE PARTS INFEED TABLE** 912 02 00 P



Posición	Cant.	Referencia	Denominación	
1	1	0700501	Calderin Compact-4	
2	1	0700520	Protección cables	
3	1	0700522	TAPA FIJ.RESISTENCIAS	
4	1	0700523	PLACA AISLANTE	
5	1	0700531	Tapa calderín	
6	1	0700545	Proteccion calderin	
7	1	0700545Ь	Tapa protección calderin	
8	3	1000079	Casquillo proteccion calderin	
9	1	1000502	Soporte basculante calderin	
16	1	1000513	Eje pomo	
20	1	1000521fr	Copiador calderin FR	
21	1	1000525	Tapa calderin	
22	1	1000526	Tapa resistencia frontal	
23	1	1000527	Placa amianto frontal	
25	1	1000540	Termostato	
26	1	1000542 250w	Resistencia calderin	
27	1	1000542 500w	RESISTENCIA CALDERIN	
28	1	1000918	Arandela Ø25 × Ø8 × 4	
29	1	1010569b	RESISTENCIA CALDERIN	
30	4	M8×70	Varilla roscada	
32	4	arandelaM8	Arandela	
34	4	hembraM8 laton	Tuerca laton M8	
35	1	pomo calderín	Pomo calderin	
36	1	porosoil25x32x30	Casquillo porosoil	
37	1	porosoilB25x32x35	Casquillo porosoil	
40	1	1000504m	Cuerpo boquilla	
41	1	1000506frm	Boquilla salida cola FR	
42	1	1000507m	Rodillo cola	
43	1	1000511m	Trampilla regulacion cola	
44	1	1000517m	Tapa boquilla	
45	1	1000518m	Regulador salida cola	
46	1	Arandela WC 08 DU 10	Arandela friccion	
47	1	1000519m	Casquillo inferior cuerpo calderin	
48	1	Arandela WC 14 DU 16	Arandela friccion	
49	1	1010421 CASQUILLO GUIA SALII		
50	1	maneta fija M8		
51	1	MB1015DU Casquillo de friccion		
52	1	MB1625DU	Casquillo friccion	

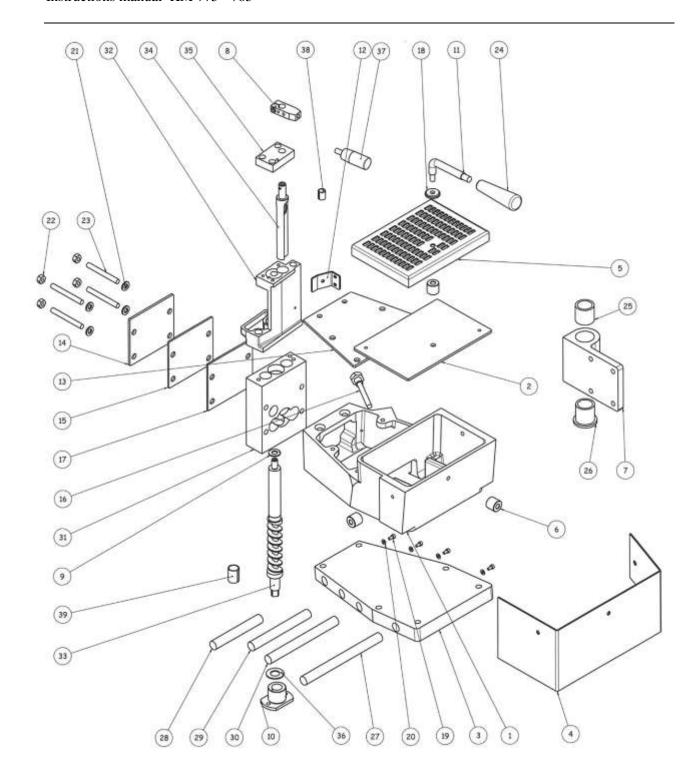






N° DE ELEMENTO	NÚMERO DE PIEZA	CANT.	DESCRIPCION
1	0700501	1	Calderin Compact-4
2	0700531	1	Tapa calderín
3	0700537fr	1	Placa porta resistencia FR
4	0700545	1	Proteccion calderin
5	0700545b	1	Tapa protección calderin
6	1000079	3	Casquillo proteccion calderín
7	1000502	1	Soporte basculante calderin
8	1000518m	1	Regulador salida cola
9	Arandela WC 08 DU 10	1	Arandela friccion
10	1000519m	1	Casquillo inferior cuerpo calderin
11	1000513	1	Eje pomo
12	1000521fr	1	Copiador calderin FR
13	1000525	1	Tapa calderin
14	1000526	1	Tapa resistencia frontal
15	1000527	1	Placa amianto frontal
16	1000540	1	Termostato
17	1000542 250w	1	Resistencia calderin
18	1000918	1	Arandela Ø25 x Ø8 x 4
19	allenM4x8	4	Tornillo
20	arandelaM4	4	Arandela
21	arandelaM8	4	Arandela
22	hembraM8 laton	4	Tuerca laton M8
23	M8×70	4	Varilla roscada
24	pomo calderín	1	Pomo calderin
25	porosoil25x32x30	1	Casquillo porosoil
26	porosoilB25x32x35	1	Casquillo porosoil
27	Res1500w d16x180	1	Resistencia 1500w
28	Res600w d16x110	1	Resistencia 600w
29	Res600w d16x135	1	Resistencia 600w
30	Res800w d16x160	1	Resistencia 800w
31	1000504m	1	Cuerpo boquilla
32	1000506frm	1	Boquilla salida cola FR
33	1000507m	1	Rodillo cola
34	1000511m	1	Trampilla regulacion cola
35	1000517m	1	Tapa boquilla
36	Arandela WC 14 DU 16	1	Arandela friccion
37	maneta fija M8	1	Pomo
38	MB1015DU	1	Casquillo de friccion
39	MB1625DU	1	Casquillo friccion

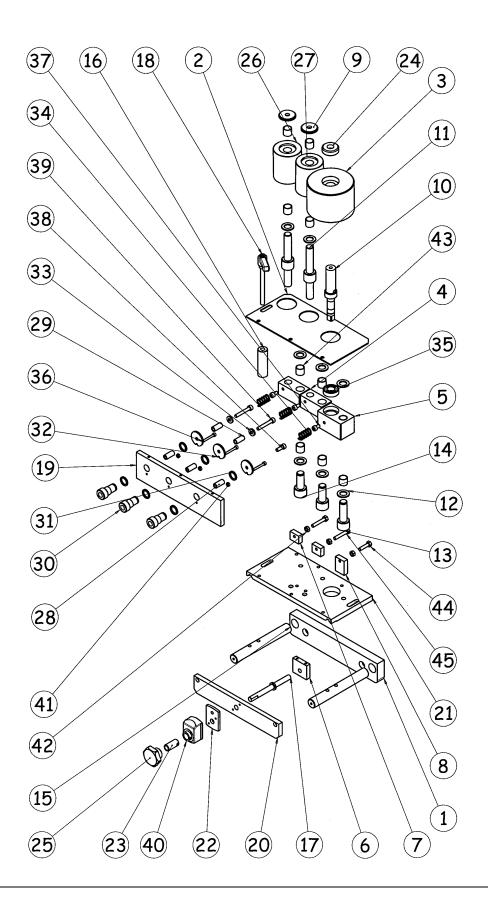






	SPARE PARTS ROLLERS BASE									
N⁰	DESCRIPTION	RE.	Νº	DESCRIPTION	RE.					
1	Roller base columns support	060 03 01a	25	Handle	1122					
2	Roller base protection	060 03 02 <sup>a</sup>	26	Roller guide negatve inclination	200 03 58n					
3	Pressure rollers	060 03 03	27	Roller guide positive inclination	200 03 58p					
4	Swivel roller	060 03 05	28	Tensor case	200 03 67a					
5	Pressure roller swivel	060 03 06	29	Tensor case	200 03 67b					
6	Base rollers regulator support	060 03 08	30	Tensor roller	200 03 68					
7	Limit roller guide	060 03 09	31	Washer 20x15x2	200 03 72					
8	Limit roller pressure	060 03 10	32	Tensor washer	200 03 73a					
9	Roller guide lid	060 03 11	33	Tensor washer	200 03 73b					
10	Feeding roller shaft	060 03 13	34	Spring pressure	240 03 15					
11	Roller guide shaft	060 03 14	35	Bearing	6002 2RS					
12	Washer	060 03 15	36	Screw	M4x30					
13	Pressure roller swivel shaft	060 03 16	37	Screw	M6x10					
14	Shaft swivel shaft	060 03 17	38	Screw	M6x16					
15	Guide shaft	060 03 20	39	Screw	M6x40					
16	Fixation case	060 03 22	40	Indicator	DA04					
17	Base rollers regulation	060 03 23s	41	Nut	M4					
18	Fixation handle	060 03 24	42	Nut	M6					
19	Base rollers front	060 03 25a	43	Screw	M6x25					
20	Front columns SIKO	060 03 261	44	Screw	M6x35					
21	Roller base plate	060 03 28n								
22	Indicator support plate	060 03 90								
23	Vertical siko case	060 14 30								
24	Fixation roller washer	100 03 18								



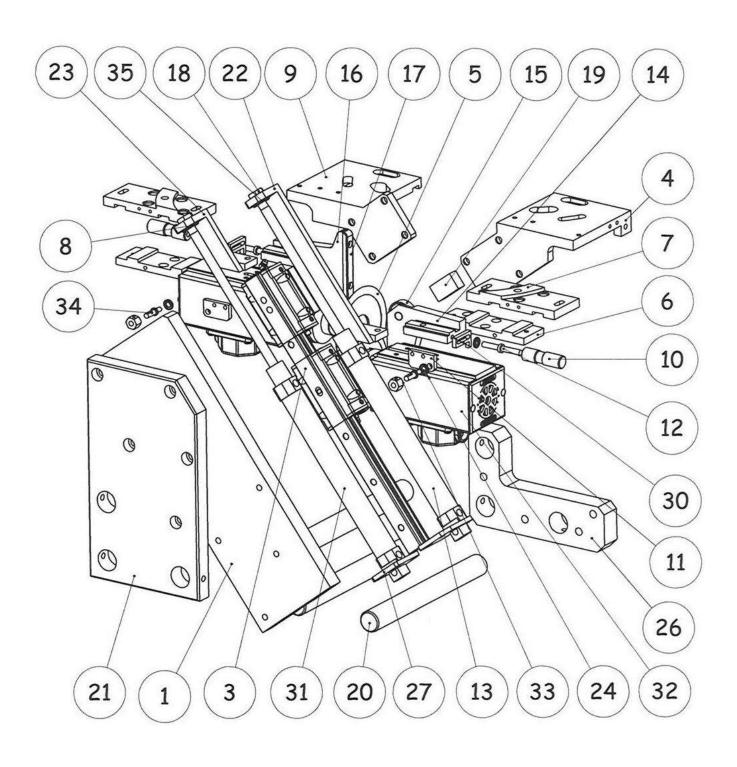




N.°	N.º DE PIEZA	Descripción	CANT
1	620617	Base guia	1
2	HIWINhgw25cc350	guia lineal	1
3	HIWINhgw25cc	Patin guia lineal	2
4	620604	Escuadra sop.trasero	1
5	600621	Sierra	2
6	620603	Placa motor	2
7	620623	Sop.corte delant.	1
8	620622	Sop.corte trasero	1
9	0620604b	Escuadra sop.delantero	1
10	620610	Tornillo regulacion	2
11	620618	Placa regulación	2
12	700729	Placa Regulación Motor	2
13	25N2A25A160	cilindro	1
14	620606	Tope corte trasero	1
15	6002-2RS	Cojinete	1
16	620605	Tope corte trasero	1
17	0620622a	Patin tope corte delant.	1
18	hembra cilindro M10	Tuerca	2
19	620634	Taco tope seguridad	1
20	620612	Columna	3
21	620601	Pasamano fijacion	1
22	620609	Tirante corte trasero	1
23	0620609b	Tirante corte delantero	1
24	arandela latón M6	Arandela Latón	3
25	allenM8×20	Tornillo	1
26	620602	Soporte columnas	1
27	620614	Soporte cilindro	2
28	tornilloM8x20	Tornillo	1
29	hembraM8	Tuerca M8 - DIN 934	1
30	620635	Brida tope	2
31	25N2A25A170	cilindro	1
32	V-8 3D 5ComNC350253	Motor	2
33	601017	Pomo hexagonal	2
34	601008	Husillo cuchilla rascador	2
35	arandelaM10	Arandela M10	2

## SPARE PARTS END TRIM STATION 0620600 V-7





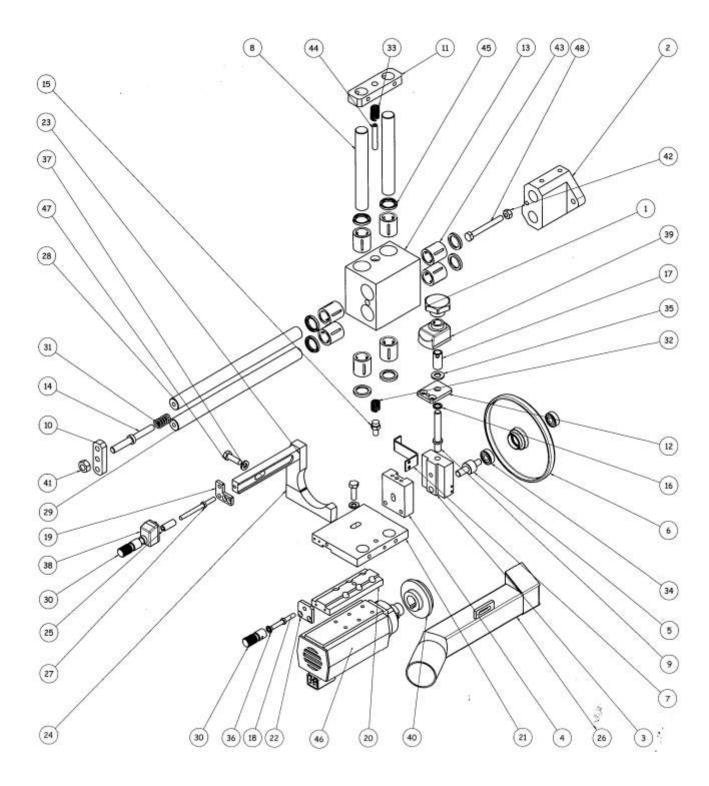
### SPARE PARTS END TRIM STATION 0620600 V-7



#### **SPARE PARTS TOP TRIMMING STATION JC-5**

ELEMENTO N° DE	NÚMERO DE PIEZA	CANT.	DESCRIPCION				
1	1122	1	Pomo regulacion				
2	2 0600703 1		Soporte grupo superior				
3	0600728α	1	Taco regulacion copiador vertical				
4	0600728b	1	Soporte copiador vertical				
5	0600732a	1	Eje copiador				
6	0600737	1	Copiador vertical				
7	0600753a	1	Limpiador copiador				
8	0600755	2	Columna vertical				
9	0600758a	1	Regulador copiador vertical				
10	0600759	1	Brida horizontal				
11	0600760	1	Brida vertical				
12	0600761	1	Placa siko vertical				
13	0600764	1	Bloque				
14	0600768	1	Regulador copiador horizontal				
15	0600769	1	Eje resorte vertical				
16	0601237	1	Arandela laton				
17	0601430	1	Casquillo siko vertical				
18	0700729	1	Regulador placa motor				
19	0700730s	1	Pletina regulacion superior con siko				
20	0700731	1	Placa motor				
21	0700732d	1	Placa guia soporte motor superior				
22	0700733	1	Pasamano regulacion guia motor				
23	0700734	1	Soporte guia copiador superior				
24 0700734a 1		Copiador superior					
25	0700736	1	Casquillo siko				
26	0700740	1	Tobera aspiracion superior				
27	0700742	1	Regulador copiador horizontal				
28	0700743a	1	Barra horizontal bloque superior				
29	0700743b	1	Barra horizontal bloque superior				
30	0700744	2	Tensor palpador inferior				
31	2400315	1	Resorte presión 929401511				
32	2400336	1	Resorte presion 929401501				
33	2400336	1	Resorte presion 929401501				
34	609-2Z	2	Rodamiento				
35	arandela latón 10.5×20×2	1	Arandela laton				
36	arandela latón M6	1	Arandela laton				
37	arandelaM8	2	Arandela				
38	DA02	1	Posicionador				
39	DA04	1	Posicionador				
40	fresa jc-5	1	Fresa				
41	hembraM10	1	Tuerca				
42	hembraM8	1	Tuerca M8 - DIN 934				
43	KH2030	8	Casquillo linial de bolas				
44	M8x45	1	Esparrago allen Reten				
45	ret20x28x4	8					
46	TDF-55C EP-11	1	Motor				
47	tornilloM8x20	2	Tornillo				
48	tornilloM8x70	1	Tornillo				





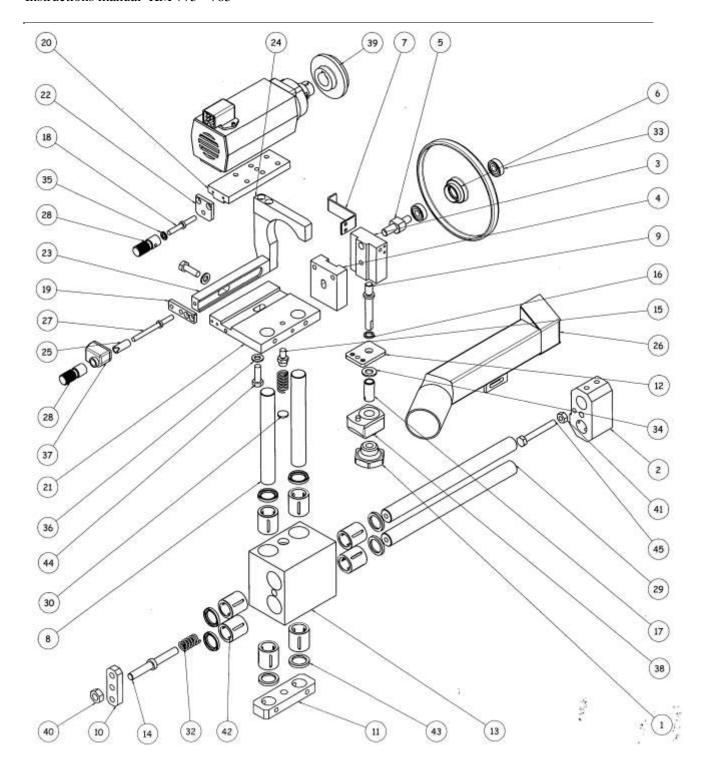
SPARE PARTS TOP TRIMMING STATION 0700700SUP



### **SPARE PARTS BOTTOM TRIMMING STATION JC-5**

UM Explosió/CANTI REFERENCIA			DESCRIPCION			
1	1	1122	Pomo regulacion			
2	1	0600704	Soporte grupo inferior			
3	1	0600728a	Taco regulacion copiador vertical			
4	1	0600728b	Soporte copiador vertical			
5	1	0600732a	Eje copiador			
6	1	0600737	Copiador vertical			
7	1	0600753a	Limpiador copiador			
8	2	0600755	Columna vertical			
9	1	0600758α	Regulador copiador vertical			
10	1	0600759	Brida horizontal			
11	1	0600760	Brida vertical			
12	1	0600761	Placa siko vertical			
13	1	0600764	Bloque			
14	1	0600768	Regulador copiador horizontal			
15	1	0600769	Eje resorte vertical			
16	1	0601237	Arandela laton			
17	1	0601430	Casquillo siko vertical			
18	1	0700729	Regulador placa motor			
19	1	0700730i	Pletina regulacion			
20	1	0700731	Placa motor			
21	1	0700732i	Placa guia soporte motor inferior			
22	1	0700733	Pasamano regulacion guia motor			
23	1	0700735	. Soporte guia copiador inferior			
24	1	0700735a	Copiador inferior			
25	1	0700736	Casquillo siko			
26	1	0700741	Tobera aspiracion inferior			
27	1	0700742	Regulador copiador horizontal			
28	2	0700744	Tensor palpador inferior			
29	2	0700745	Barra horizontal bloque inferior			
30	1	0700746	Suplemento muelle regulacion presion			
31	1	2400315	Resorte presión 929401511			
32	1	2400315	Resorte presión 929401511			
33	2	609-2Z	Rodamiento			
34	1	arandela latón 10.5×20×2	Arandela laton			
35	1	arandela latón M6	Arandela laton			
36	2	arandelaM8	Arandela			
37	1	DA02	Posicionador			
38	1	DA04	Posicionador			
39	1	fresa jc-5	Fresa			
40	1	hembraM10	Tuerca			
41	1	hembraM8	Tuerca M8 - DIN 934			
42	8	KH2030	Casquillo linial de bolas			
43	8	ret20x28x4	Reten			
44	2	tornilloM8x20	Tornillo			
45	1	tornilloM8x60	Tornillo			
46	1	TDF-55C EP-11	Motor			





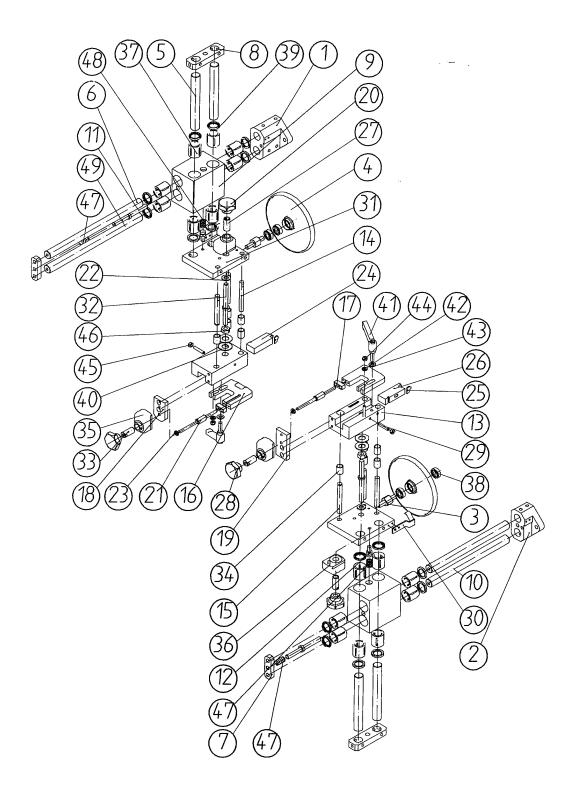
SPARE PARTS BOTTOM TRIMMING STATION 0700700SDW



#### **SPARE PARTS SCRAPER RB-8**

Nº	DESCRIPTION	REF.	Nº	DESCRIPTION	REF.
1	Top unit support	060 07 03	26	Bottom knife support	060 14 27
2	Bottom unit support	060 07 04	27	Vertical indicator case	060 14 30
3	Tracer shaft	060 07 32A	28	Horizontal regulation handle	060 14 32
4	Vertical tracer	060 07 37	29	Knife stud	060 14 34
5	Vertical column	060 07 55	30	Cleaning strip sheet	060 14 35
6	Short top horizontal column	060 14 38	31	Columns support plate	060 14 36
7	Horizontal bridle	060 07 59	32	Roller mounting reg. with siko	060 03 23/S
8	Vertical bridle	060 07 60	33	Siko case	100 17 65
9	Block	060 07 64	34	Case DU	MB1015DU
10	Bottom horizontal column	060 14 39	35	Siko indicator	DA04-02-10-1-I
11	Regulator horizontal tracer	060 07 68	36	Siko indicator	DA04-04-10-1-E
12	Vertical spring shaft	060 07 69	37	Bearing	KH2030
13	Support block	060 14 03	38	Bearing	609-2Z
14	Front guide column	060 14 04	39	Obturator ring	20*28*4
15	Rear guide column	060 14 05	40	Washer	Deville
16	Horizontal tracer	060 14 06	41	Handle	M8
17	Horizontal adjust bridle	060 14 13	42	Washer	12*6*2
18	Top horizontal regulation support	06 14 16	43	Washer	M8
19	Bottom horizontal regulation supp.	060 14 17	44	Nut	M6
20	Regulation handle	060 14 18	45	Nut	M6
21	Horizontal regulation shaft	060 14 20	46	Nut	M10
22	Washer 20*10*2	060 14 23	47	Spring 34*15*11*2	9294031501
23	Washer 12*6*2	060 14 24	48	Spring 34*14*11*1.5	9294031511
24	Top knife support	060 14 26	49	Long top horizontal column	060 14 37
25	Knife	060 14 26/A			



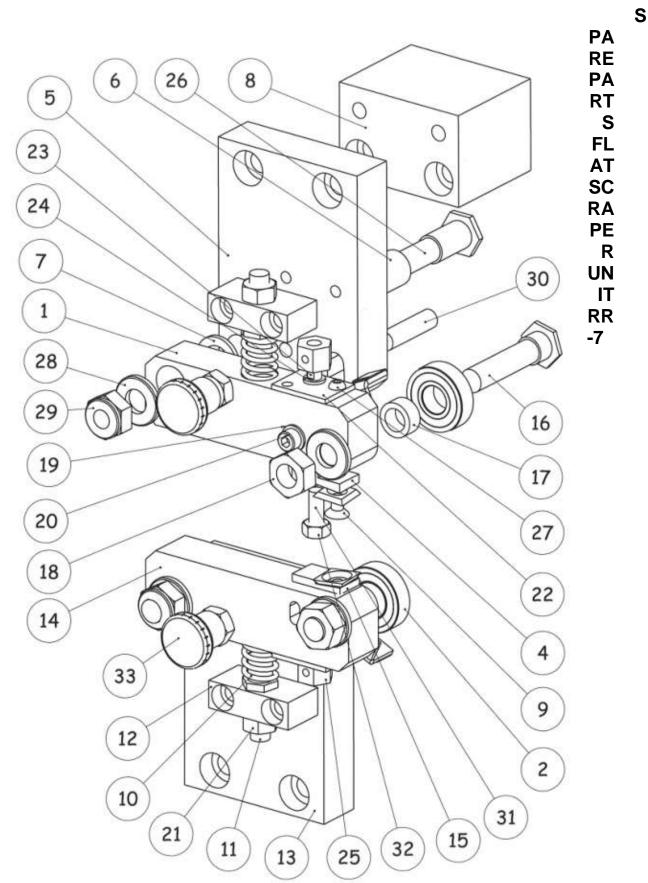




N. I. I.A.A.	CANIT	DEECDENCE	NECCOTOTION
	CANT.	REFERENCE	DESCRIPTION
1	1	601001	Scraper arm
2 3 4 5 6 7 8 9	2	6001-2RSR	bearing
3	2	9316007141	Scraper knife
4	1	0601003n	Knife holder
5	1	601002	Fixing block
6	2	A10x15x20	Bush
7	2	1121015	Distance washer
8	1	601014	Fijacion rascador superior
9	1	avellM5x8	Screw
10	2	2400315	Spring pressure 929401511
11	2	1121019	Spring regulation
12	2	601015	Regulation sheet
13	1	0601002a	Lower mounting block
14	1	0601001d	Lower arm
15	1	0601003b	Lower knife holder
16	2	601010	Turrion copiador rascador
17	2	601011	Distance washer
18	2	hembraM10	Tuerca
19	1	arandela M5	Washer
20	1	allenM5x20	Tornillo allen M5 × 20
21	2	hembraM8	Nut
22	2	601006	knife regul. sheet
23	2	601008	_ <del>-</del>
24	4	1121016	
	2	601017	Knob
26	2	601009	Turrion copiador rascador
	1		<del>-</del>
	4		
			Nut
	1		Esparrago roscado
	1		
	1		
	$\bar{1}$		
			• • •
	$\bar{1}$		
23 24 25 26 27 28 29 30 31 32 33 34 35 36	4 2 1 1 2 1 1		Turrion copiador rascador Screw Arandela M10

#### SPARE PARTS FLAT SCRAPER UNIT RR-7 060 10 00



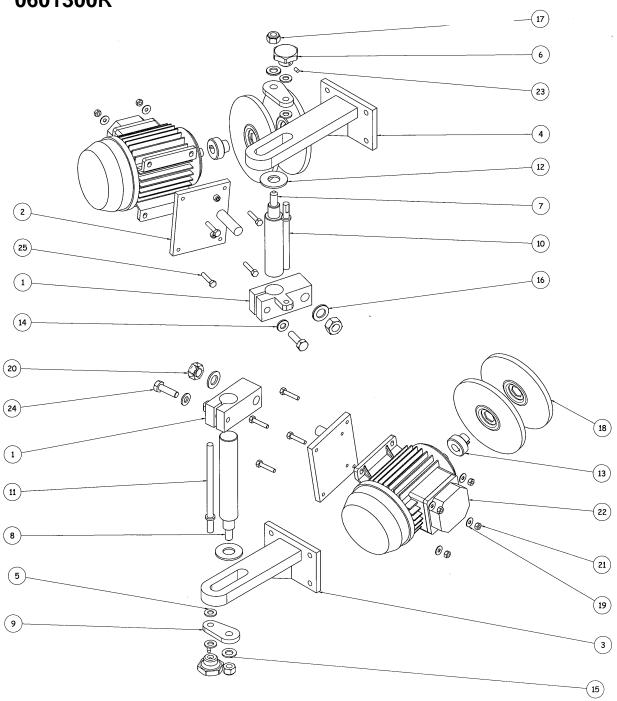




<b>1</b> 0	DESCRIPTION	REF		
1	Swivel support	0601302		
2	Plate motor base	0601303		
3	Mounting bracket bottom	0601304 a		
4	Mounting bracket top	0601304r		
5	Washer	1000510 a		
6	Handle	1122		
7	Top column	0601305		
8	Bottom column	0601306		
9	Regulation plate	0601309		
10	Bottom tracer regulator	0601310		
11	Top tracer regulator	0601311		
12	Column washer	0601211		
13	Disc bushing	0601217		
14	Washer	M10		
15	Washer	M12		
16	Washer	M16		
17	Nut	M12		
18	Cotton disc	Disco		
19	Washer	M6		
20	Nut	M16		
21	Nut	M6		
22	Motor	Motor		
23	Threaded bar	M5x8		
24	Screw	M10x35		
25	Screw	M6x30		



# SPARE PARTS POLISHER STATION 0601300R





#### **DRAG CHAIN GEARBOX**

The gearboxes are supplied with lubricant with unlimited life. Mineral oil ISO VG220. Capacity 1000 cm3

#### NORD SK33 Standard helical gearboxes

#### Maintenance

- change lubricant every 10.000 working hours or after two years at the latest.
- combine the lubricant change with thorough cleaning of gear unit
- lubricant changing intervals will be twice as long if synthetic products are used
- extreme working conditions (high air humidity, aggressive media and large temperature variations) call for reduced lubricant changing intervals
- ⊗ Synthetic and mineral lubricants must not be mixed either for filling or for disposal!

		Tipos de I	ubricante	/ Tipo di lubri	ficante / Tip	o de lubrificant	e		
ipo de lubricante Tipo di lubrif. Tipo de lubrif.	Temp. ambiental Temp. ambiente Temp. ambiente	ARA	BP		ESSO	FUCHS	Klonen	Mobil	Shell
Aceite mineral Olio minerale Oleo mineral	0 40°C ISO VG 680	Degol BG 680 Degol BG 680 plus	3 + 0 5	Alpha SP 680		Renolin CLP 680 CLP 680 Plus	Klüberoll GEM 1-680N	Mobilgear: - 636 - XMP 680	Shell Omala 680
	ISO VG 220 - 5 40°C (normal)	Degol BG 220 BG 220 plus	Energol GR-XP 220	Alpha SP 220 Alpha MW220 Alpha MAX 220	Spartan EP 680	Renolin CLP 220 Renolin CLP 220 Plus	Klüberoil GEM 1-220N	Mobilgear 630 Mobilgear XMP 220	Shell Omala 220
	ISO VG 100 - 15 25°C	Degol BG 100 BG 100 plus	Energol GR-XP 100	Alpha SP 100 Alpha MW 100 Alpha MAX 100	Spartan EP 100	Renolin CLP 100 Renolin CLP 100 Plus	Klüberoil GEM 1-100N	Mobilgear: - 627 - XMP 110	Shell Omala 100
VALUE OF STREET	ISO VG 15 - 45 15°C *	Vitamol 1010	Bartran HV 15	Hyspin AWS 15 Hyspin SP 15 Hyspin ZZ 15	Univis J13	Renolin B 15 HVI	ISOFLEX MT 30 ROT	Mobil DTE 11 M	Shell Tellus T 15
Aceite sintético Olio sintético Óleo sintético	-5 60°C ISO VG 680	Degol GS 680	Energol SG-XP 680			Renolin PG 680	Klübersynth GH 6-680	Glygoyle HE 680	Shell Tivela S 680
Cieo sintetico	ISO VG 220 -25 80°C *	Degol GS 220	Enersyn SG-XP 220	Alphasyn PG 220	Glycolube 220	Renolin PG 220	Klübersynth GH 6-220	Głygoyle HE 220	Shell Tivela S 220
Aceite biodegradable	ISO VG 680 -5 40°C	Parleys S	in grade			Plantogear 680S	MAR		
Olio biodegradabile Óleo biodegradável	ISO VG 220 -5 40°C	Degol BAS 220	Biogear SE 220	Carelub GES 220	5	Plantogear 220S	Klübersynth GM 2-220	T	Shell Omala EPB 220
Aceite compat, c. prod. alim. <sup>11</sup> Ofio per ambienti alimentari <sup>11</sup>	-5 40°C ISO VG 680				-	Geralyn SF 680	Klüberoil 4 UH1-680N Klübersynth UH1 6-680	Mobil DTE FM 680	Shell Cassida Fluid GL680
Óleo p/ ind. Alimenticia	ISO VG 220 -25 40°C	Eural Gear 220	=	Vitalube GS 220	Gear Oil FM 220	Geralyn AW 220 Geralyn SF 220	Klüberoil 4 UH1-220N Klübersynth UH1 6-220	Mobil DTE FM 220	Shell Cassida Fluid GL220
Grasa sintética fluida Grasso sintetico Graxa sintética fluida	- 25 60°C	Aralub BAB EP0	-	Alpha Gel 00	Fließfett S 420	Renofit LST 00	Klübersynth GE 46-1200 Klübersynth UH1 14-1600 <sup>1</sup>	Glygoyle Grease 00	Tivela GL 00

#### 11 ELECTRIC SCHEME