

## Packaging description

The machine is secured to a special pallet with bolts and protected with clear packaging film and cardboard. Open the cardboard box and remove the film.

Make sure that all machine parts, including any accessories, have been supplied and are undamaged.

**Dispose of the packaging material in accordance with current regulations.**



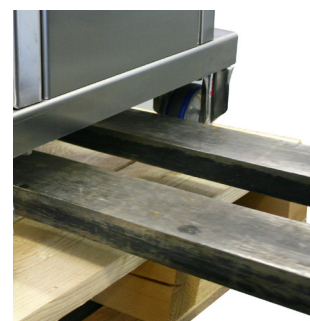
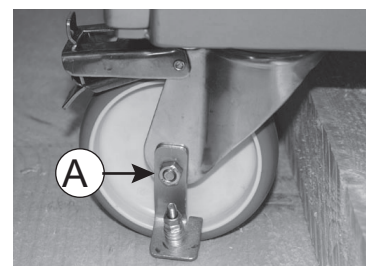
## Transport

Use a forklift or a pallet truck to carry the machine.

Before transporting the machine, make sure that:

- the transport device is able to withstand the load (see technical data of the machine)
- the machine is stable on the forks
- the adjacent area is clear of obstacles, persons or animals that may create dangerous situations

Remove the machine from the pallet by taking out the screws that secure it to the pallet itself. Lift the machine by inserting the forks of the forklift in the area indicated in the figure. Place the machine in the designated work area.



**Before conducting any movement, always check whether the machine is stable and make sure the area where the movement is conducted is clear of obstacles such as objects, animals or persons.**

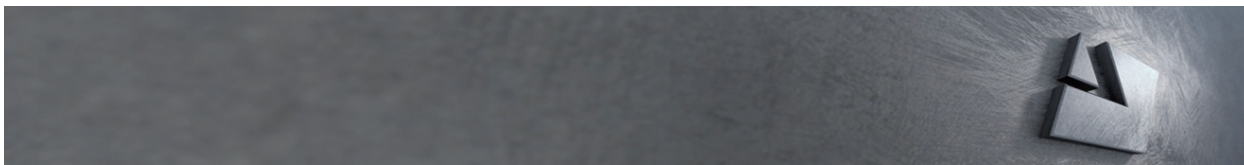
## Positioning

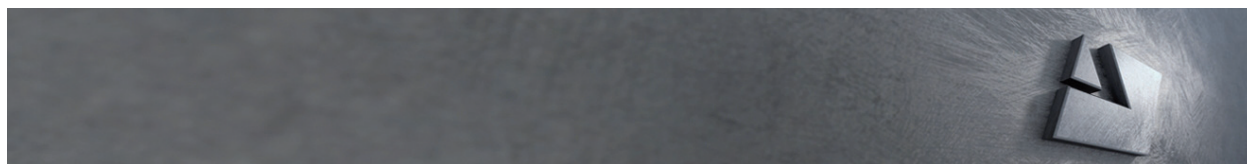
Provide for a work area large enough to perform all the manoeuvres safely (see technical data).



**IT IS FORBIDDEN TO INSTALL THE MACHINE ON A SLANTING FLOOR**

**Once the machine is positioned correctly, it must be locked using the braking device on the two turning wheels of the machine.**





# TECHNICAL MANUAL AUTOMATIC DERINDING MACHINE

*Model NAB M*

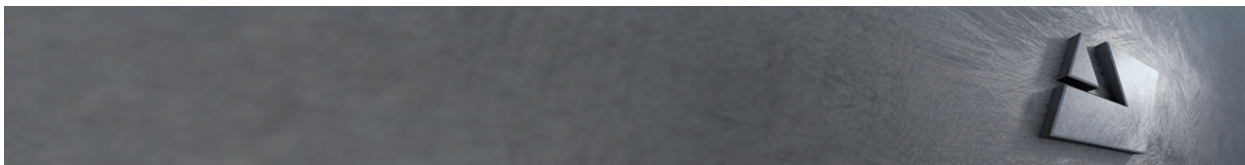


**Before using the machine, read this handbook carefully**



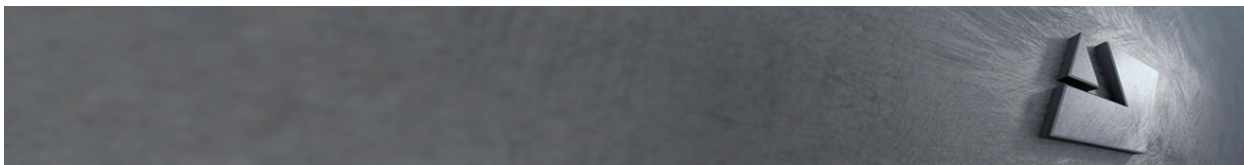
This handbook is always supplied with the machine. Read it carefully before attempting to start the machine.

This handbook contains important information and instructions concerning the machine and the safety of the operator, therefore it must remain with the machine at all times.



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# INDEX

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- 1.2 INTRODUCTION
- 1.3 SAFETY INSTRUCTIONS
- 1.4 SAFETY PRECAUTIONS
- 1.5 GENERAL DESCRIPTION OF OPERATION

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- 2.2 INDICATIONS CONCERNING UNPACKING
- 2.3 PRELIMINARY OPERATIONS
- 2.4 MACHINE CHARACTERISTICS
- 2.5 ELECTRICAL CONNECTION
- 2.6 PNEUMATIC CONNECTION
- 2.7 DESCRIPTION OF MAIN COMPONENTS
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- 2.9 DAILY TEST

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- 5.3 BLADE REPLACEMENT AND ADJUSTMENT
- 5.4 RUBBER ROLLER REPLACEMENT
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- 5.6 COUNTER ROLLER REPLACEMENT
- 5.7 REPLACEMENT OF CONVEYORS AND BELTS

## **6- SECTION PNEUMATIC SYSTEM**

- 6.1 PNEUMATIC SYSTEM

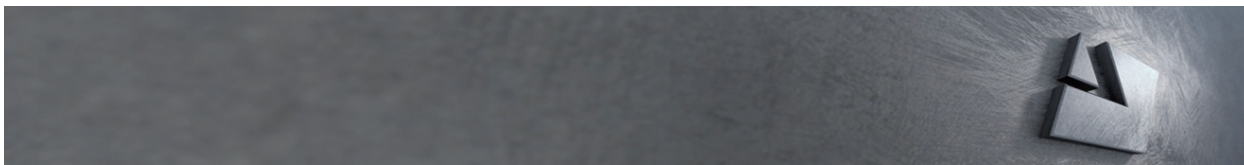
## **7- SECTION ELECTRIC WIRING**

## **8- SECTION FAILURES AND REPAIRS**

- 8.1 TROUBLE - SHOOTING

## **9- SECTION SPARE PARTS**

- 9.1 DESCRIPTION OF SPARE PARTS SECTION
- 9.2 EXAMPLE OF CORRECT ORDERING
- 9.3 BASE
- 9.4 TOOTHROLLER
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- 9.12 OUTFEED MODULAR BELT
- 9.13 ELECTRIC SYSTEM
- 9.14 CLEANING SYSTEM
- 9.14a CLEANING SYSTEM
- 9.15 MOTOR UNIT
- 9.16 PNEUMATIC SYSTEM



# CAUTION

**This manual is an integral part of the machine and no operations must be carried out before reading it carefully in all its parts.**

**It should be kept for future reference and must always accompany the machine.**

| Technical Data           |      |        |
|--------------------------|------|--------|
| Description              | Dati | U.M.   |
| Work width               | 520  | mm     |
| Machine depth            | 2120 | mm     |
| Machine height           | 1248 | mm     |
| Belt hight               | 870  | mm     |
| Machine width            | 960  | mm     |
| Weight                   | 460  | Kg     |
| Motor power              | 2,2  | Kw     |
| Air consumption          | 140  | Lt/min |
| Work speed               | 22   | M/min  |
| Noise                    | 75   | dBA    |
| Operator control circuit | 24   | V      |

# DECLARATION OF CONFORMITY



**Manufacturer:**

**GRASSELLI** SPA

**Address**

Via S. D'Acquisto, 2/C  
42020 Albinea  
Reggio Emilia Italy  
Tel. + 39 0522 17.14.100 r.a. Fax + 39 0522 59.81.47  
[http:// www.grasselli.com](http://www.grasselli.com) E-mail [info@grasselli.com](mailto:info@grasselli.com)

**Product name:**

**- AUTOMATIC DERINDING MACHINE**

**Model:**

**- NAB M**

**Serial number:**

**IT IS IN CONFORMITY WITH THE FOLLOWING DIRECTIVES:**

| <i>Field</i> | <i>Standard</i> | <i>Title</i>               | <i>Result</i> |
|--------------|-----------------|----------------------------|---------------|
| Directive    | 2006 / 42 CEE   | Product safety             | Applay        |
| Directive    | 2004/108 CEE    | Electromagnetc compability | Applay        |
| Directive    | 2006 / 95 / CE  | Low tension                | Applay        |
| Norm         | E.N.12355       | Skinning machine           | Applay        |

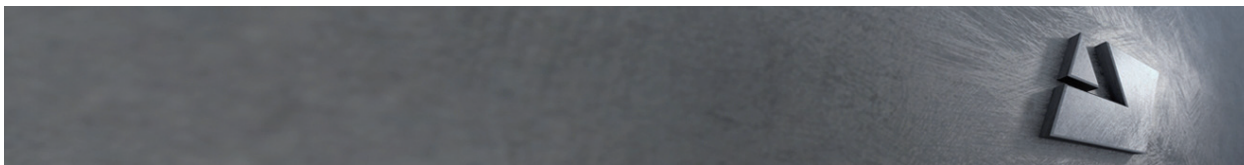
Place of issue: Albinea ( Reggio Emilia )

Date of issue: \_\_\_\_\_

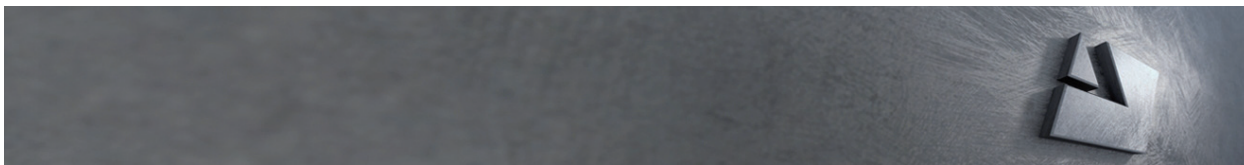
Name: Gemmi Giuliano

Qualification: Product conformity manager

Signature: *Gemmi Giuliano*



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# SECTION 1 SAFETY



**Read carefully instructions and safety information (Sect.1) before using machine.**

**Disregards for instructions and safety information can cause injury**

## SYMBOLS USED IN THIS MANUAL



Symbol used to indicate specific safety measures.



Symbol used to indicate dangerous points.



Symbol used to indicate notes.

## PLATES USED ON THIS MACHINE

**ATTENZIONE**  
PRIMA DI COLLEGARE LA MACCHINA  
ACCERTARSI DELLA PRESENZA DI UN  
INTERRUTTORE DIFFERENZIALE SULLA LINEA

**ATTENTION**  
BEFORE CONNECTING MACHINE TO THE  
ELECTRICAL SYSTEM SUPPLY AN EARTH LEAKAGE  
PROTECTION DEVICE MUST BE FITTED



**ATTENZIONE**  
TOGLIERE LA TENSIONE  
PRIMA DI RIMUOVERE  
LA PROTEZIONE

**ATTENTION**  
TAKE OFF TENSION  
BEFORE REMOVING  
PROTECTION

**CORRENTE ELETTRICA**  
ELECTRICAL CURRENT



DEVE ESSERE RIMOSSO SOLO DA  
PERSONALE QUALIFICATO  
MUST BE REMOVED ONLY FROM  
EXPERIENCED PEOPLE



**ATTENZIONE! ZONA PERICOLOSA**  
**ATTENTION! DANGEROUS AREA**

**IMPORTANT!**  
READ THE MANUAL BEFORE  
OPERATING THIS MACHINE

**OPERATOR - CONDUCT THIS SAFETY TEST DAILY**

ENSURE MACHINE STOPS WHEN:

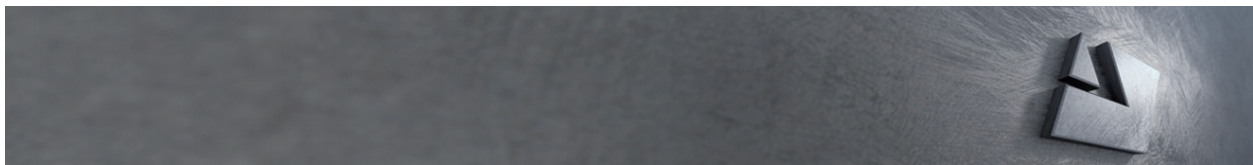
- THE EMERGENCY BUTTON IS PRESSED.
- FOOT SWITCH IS RELEASED.
- MAIN POWER SWITCH IS TURNED TO POSITION 0.
- SAFETY GUARDS ARE REMOVED.

**SAFETY INSTRUCTION**

- MACHINE MUST BE USED ONLY BY QUALIFIED PEOPLE INSTRUCTED IN IT'S USE.
- **DONOT** TOUCH TOOTHROLL OR BLADE WITH HANDS OR CLOTHES.
- **DONOT** REMOVE OR TAMPER WITH SAFETY
- **DONOT** LEAVE MACHINE CONNECTED WHEN NOT IN USE.
- IF MACHINE DOESN'T WORK PROPERLY

**STOP IT IMMEDIATELY**  
AND REPORT TO YOUR IMMEDIATE SUPERVISOR.





## 1.1. GENERAL NOTICES



### **CAUTION !**

**Reading and understanding this manual is compulsory for everyone who uses and performs maintenance on this machine and for everyone who checks its use.**

#### **Foreman**

The foreman has to assure a copy of this manual is available for everyone who carries out the following operations:

- Work (operating, cleaning)**
- Maintenance**
- Repair**

He must also instruct the assigned personnel ensuring that the subjects of this handbook are understood and carried out by everyone.

In case of:

- Updating**
- New personnel**
- Specific request**
- Ascertained difficulties**

The instructions will have to be explained until they have been understood perfectly.

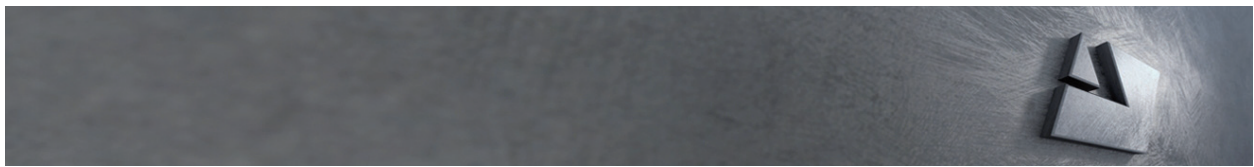
This manual must always accompany the machine even in the case of transfer or sale.

This machine must be used only for the functions for which it has been expressly designed.

**Improper use and alteration of its functions are forbidden.**

The manufacturer accepts no liability in the event of tampering.

**Use only genuine Grasselli S.p.A. spare parts.**



## 1.2. INTRODUCTION

### To all personnel !



**Read and understand all the safety measures and instructions, especially the following.**

**1. Start the machine only if you are ready to operate it.**

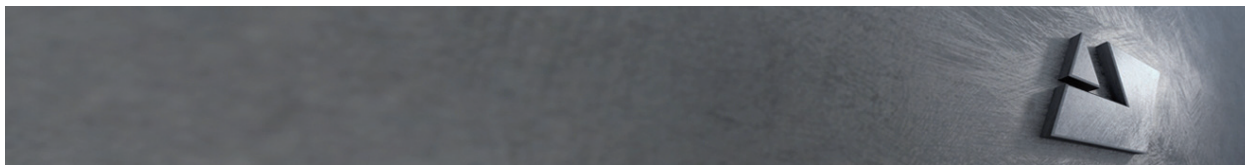
**2. Cut off electrical and pneumatic supply when the machine:**

- is unattended
- undergoes a failure
- needs work such as blade change or maintenance

Cutting off the electrical supply means physically eliminating the connection between the electrical and compressed air mains and the machine.



**Read and understand the instructions/precautions given on the following pages.**



## 1.3. SAFETY INSTRUCTIONS

1. Read and follow the instructions contained in this manual before installing, using, cleaning or repairing the machine.
2. Check that all the safety devices work properly, otherwise notify the foreman.
3. Use the machine only when it and the safety devices work properly.
4. The cutting edge of the blade must not be touched.

Used blades must be placed in a special container.

**Wear protective gloves when changing blades.**

5. Follow in particular the instructions concerning:

**Safety**

**Maintenance**

**Cleaning**

**Changing the blade**

6. Use this machine only for the work it has been designed for:

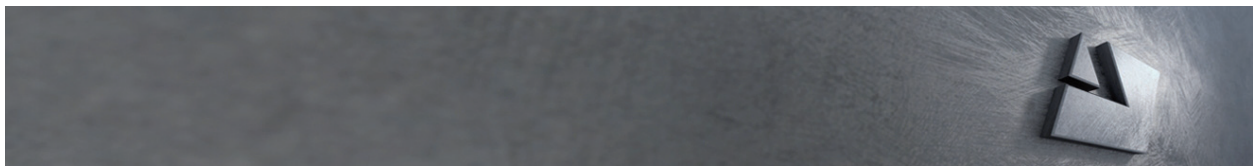
**Removing the hide from a vast range of meats**

7. Use only genuine Grasselli S.p.A. spare parts.



**If during use the machine does not work properly, stop it immediately. Notify the department foreman.**

**Read and understand the precautions given on the following page.**



## 1.4. SAFETY PRECAUTIONS

### IT IS ABSOLUTELY FORBIDDEN:

- **To operate** on this machine in an improper manner, that is with designs other than those it was designed and intended for.

### IT IS ABSOLUTELY FORBIDDEN:

- **To connect** the machine to sources of energy (ELECTRICITY, COMPRESSED AIR) until assembly and installation of all the protections and safety devices has been completed.

### IT IS ABSOLUTELY FORBIDDEN:

- **To use** the machine until the daily test has been successfully completed.

### IT IS ABSOLUTELY FORBIDDEN:

- **To do** any work (REPAIRS, ADJUSTMENTS, CHECKS, etc.) until the electricity and compressed air have been cut off.

### IT IS ABSOLUTELY FORBIDDEN:

- **To use** the machine with parts that are damaged or missing, with safety devices out of order and with guards fixed incorrectly.

### IT IS ABSOLUTELY FORBIDDEN:

- **To modify**, remove or replace parts or safety devices designed to be used with this machine.

### IT IS ABSOLUTELY FORBIDDEN:

- **To touch** the cutting edge of the blades. Always wear a pair of protective gloves when handling the blade. Eliminate used blades appropriately and safely.

### IT IS ABSOLUTELY FORBIDDEN:

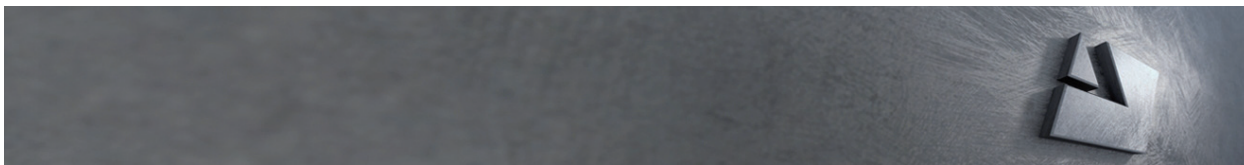
- **To touch** the internal protections or any other moving part while the machine is in operation.

### IT IS ABSOLUTELY FORBIDDEN:

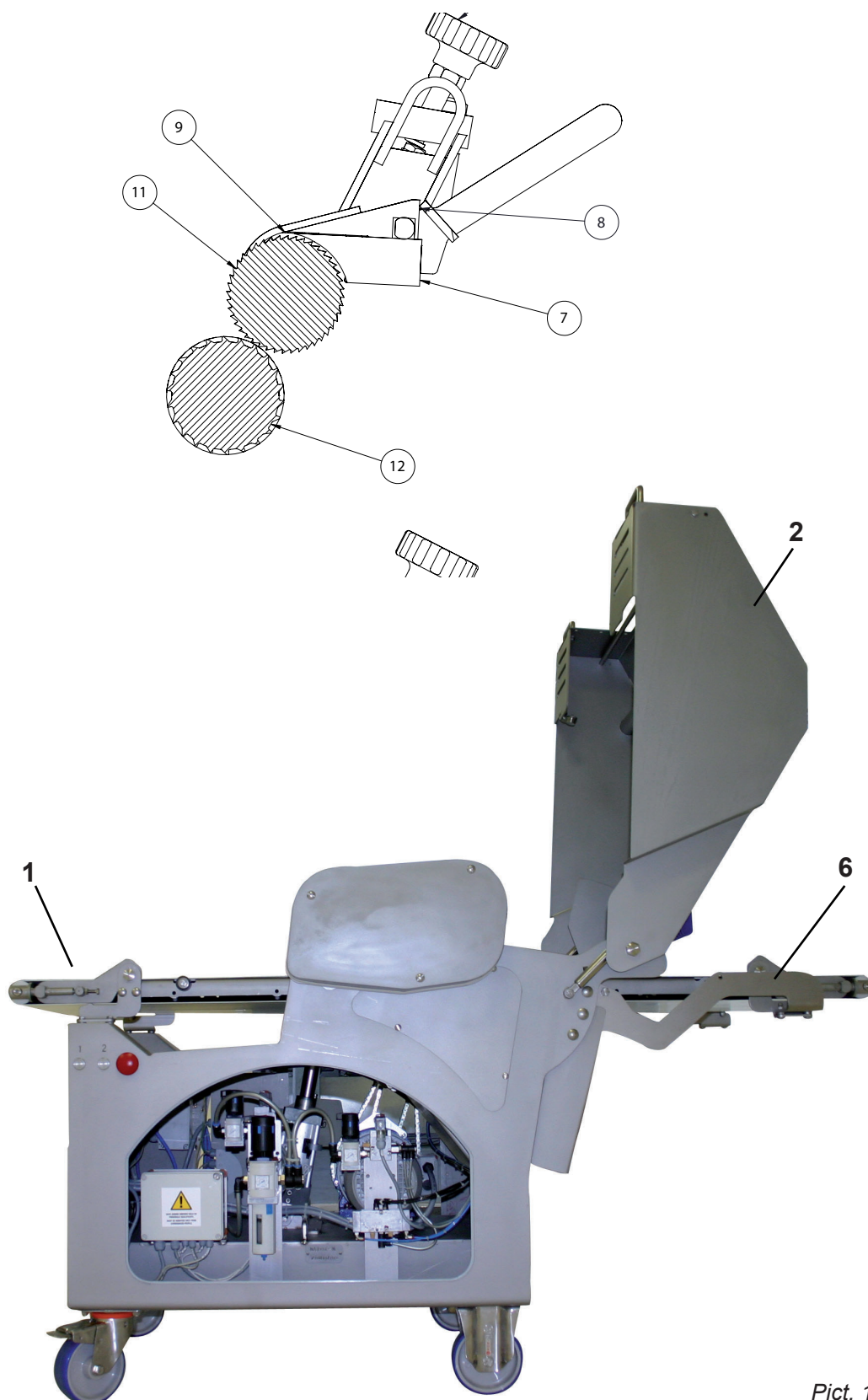
- **To leave** the machine connected to the energy sources when it is not being used.



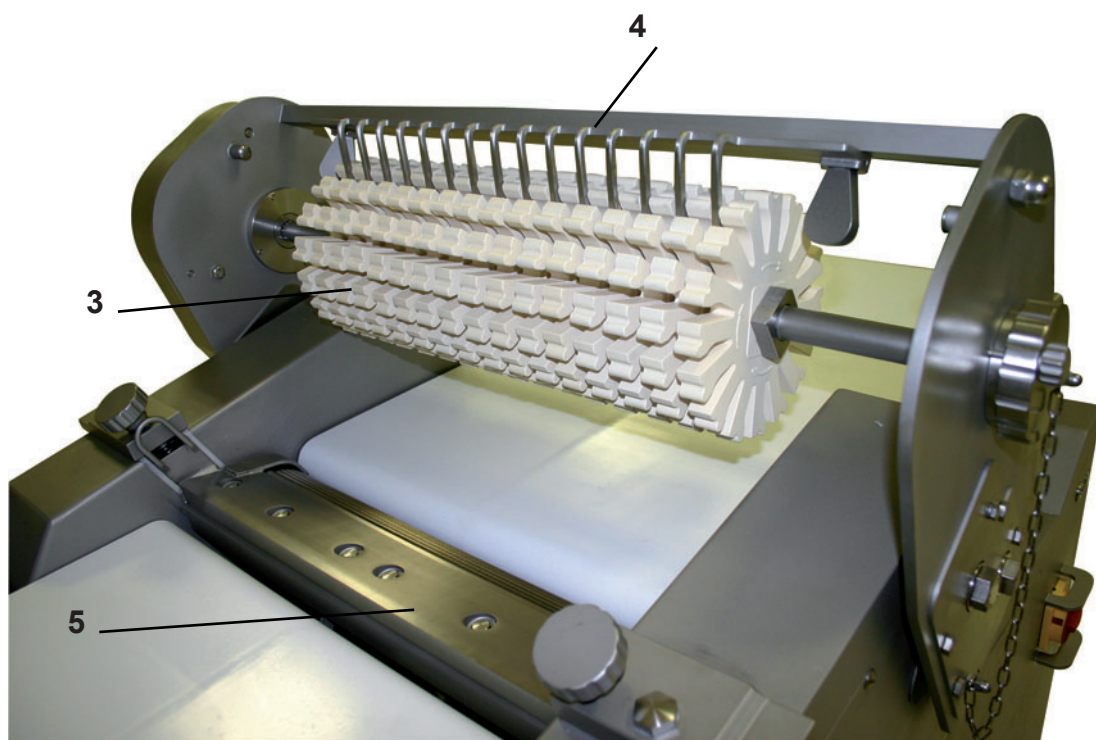
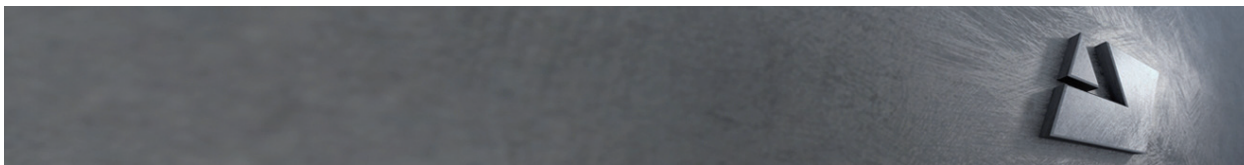
**Should the machine not work properly during use, stop it immediately. Notify the foreman.**



## 1.5. GENERAL DESCRIPTION OF OPERATION

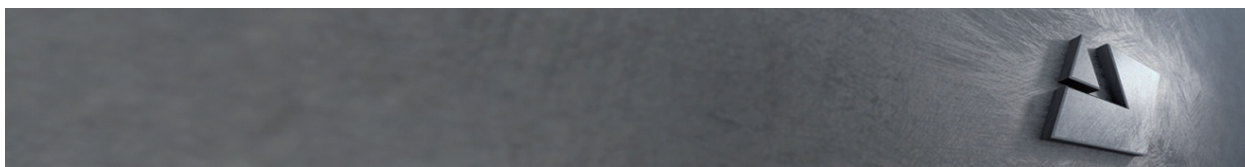


Pict. 1.5.1



Pict. 1.5.2





The **NAB** model has been designed to remove rinds automatically, on a vast range of meats (beef, veal, pork, turkey, etc.).

**The main components of the machine are:** (see Pict. 1.5.1)

- |                             |                          |
|-----------------------------|--------------------------|
| 1) Infeed belt              | 7) Blade support plate   |
| 2) Front protection         | 8) Blade protection      |
| 3) Rubber roller group      | 9) Blade                 |
| 4) Rubber roller comb group | 10) Blade holder knobs   |
| 5) Blade group              | 11) Toothroll            |
| 6) Outfeed belt             | 12) toothroll comb group |

## OPERATION

Preliminary checks to be made before each work cycle:

- check state of the machine.
- check shields have been fixed properly.
- check that machine will not start with rubber roller group protection (3) open.
- run control test, see Sect. 2.9 "**Saily test**".

After carrying out these steps, pass on to start machine, see Sect. 2.8 "**Starting the machine**".

Product to be treated must be placed on infeed belt (1). Product's part to be removed must on bottom side.

Toothroll (11) aided by rubber roller group (3), will draw the product towards blade (9) that will separate the product into two portions.

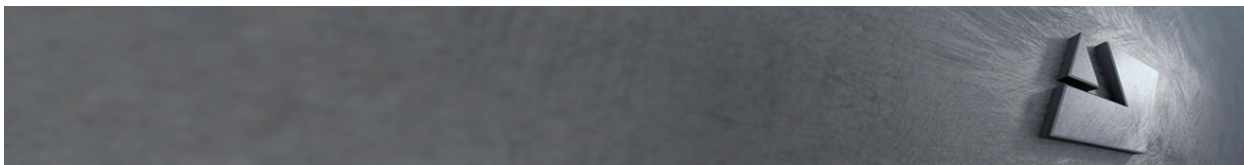
Scrap product will be removed from toothroll by means of toothroll comb group (12) to end up in the special container.

The processed product will be conveyed outside the machine by outfeed belt (6).

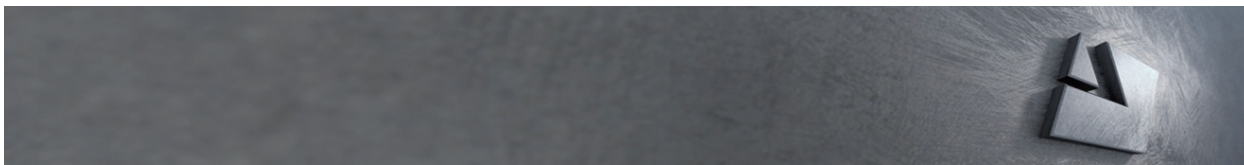


**Machine's work cycle is carried out automatically.**





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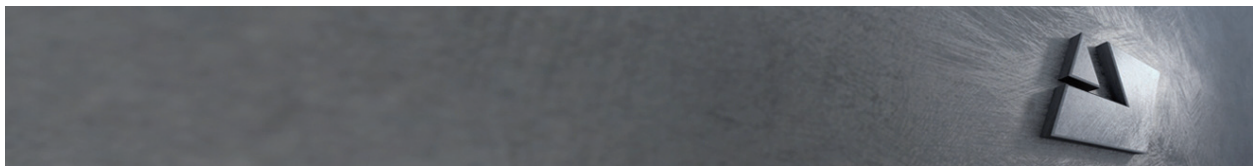


# SECTION 2 INSTALLATION



**Read carefully instructions and safety information (Sect.1) before using machine.**

**Disregards for instructions and safety information can cause injury**



## 2.1. INDICATIONS CONCERNING TRANSPORT

The machine is delivered to the user bracketed on a pallet and enclosed in a cardboard box full of special material making it a solid and compact entity.

Use a forklift truck to handle the packed machine. Insert forks into area indicated on packing.

It is forbidden to overturn, lay down or stand the packing one on top of another.

Handling the unpacked machine may be done by using the wheels of machine with or by a forklift truck, inserting the forks only from the side shown in Pict.2.1.1

## 2.2. INDICATIONS CONCERNING UNPACKING

Open the cardboard box then, after removing filler material remove cardboard box.

Remove fixing brackets joining machine to pallet.

Clean the machine of any remains of packing and push it into its place of use.

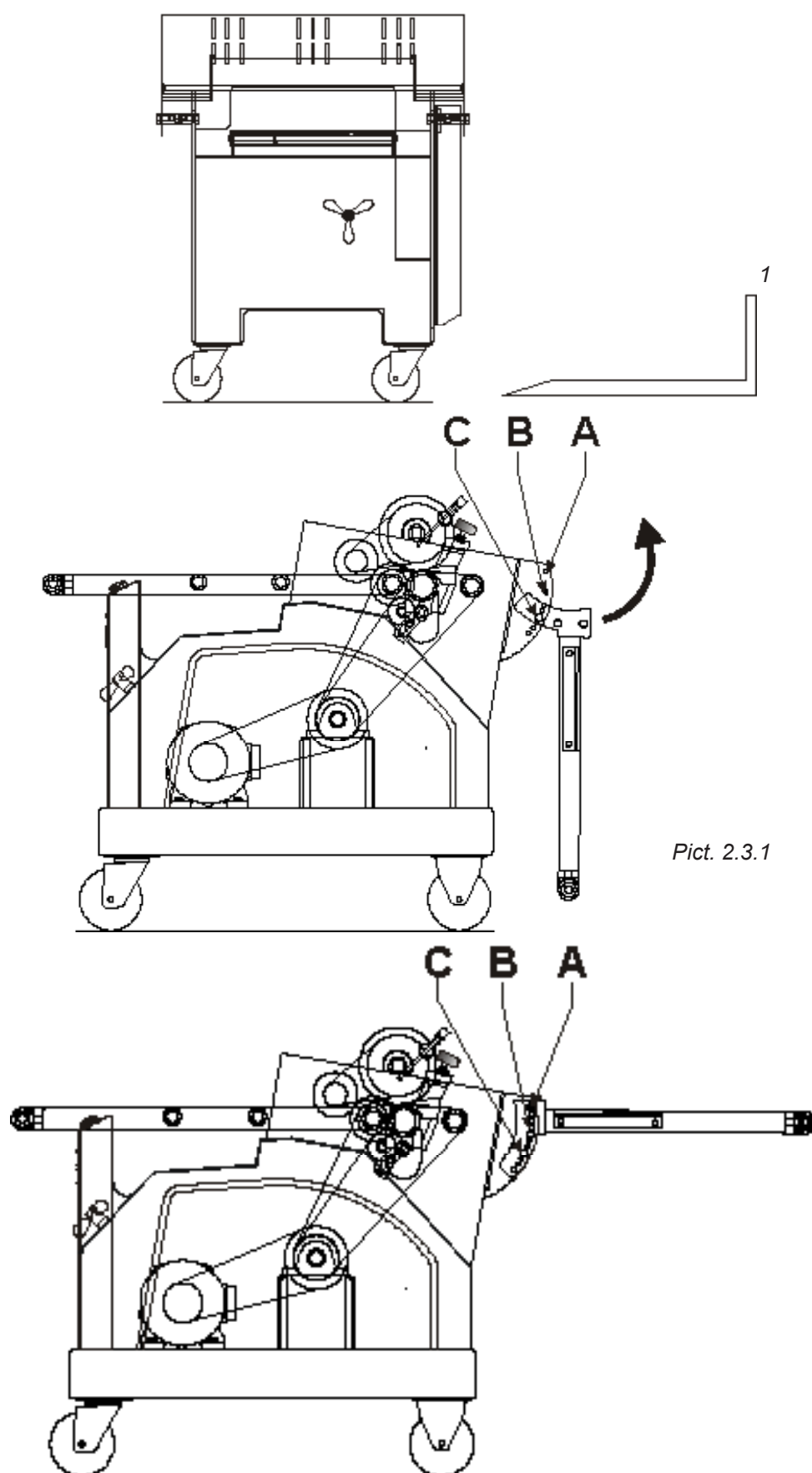
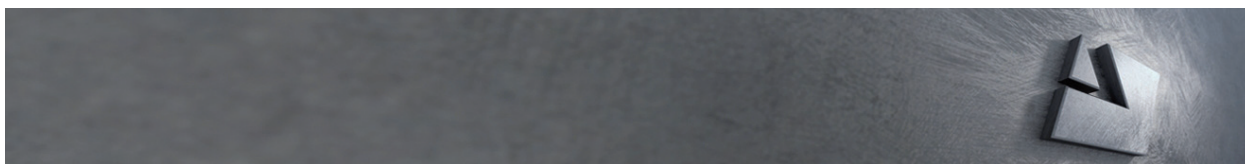
## 2.3. PRELIMINARY OPERATIONS

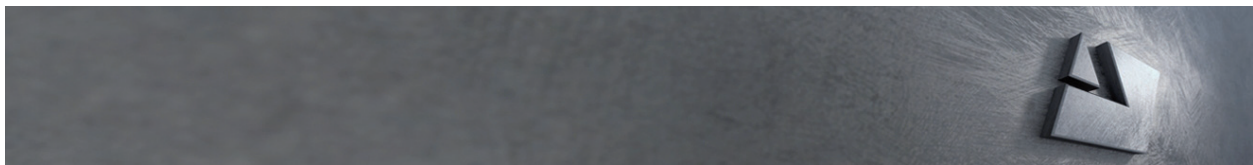
**N.B. Right- and left-hand sides are meant considering the working position of the operator**

### **FITTING THE BELTS** Pict.2.3.1-2.3.2

Machine will be delivered with infeed belt in work position and with outfeed belt low (see Pict. 2.3.1). To fix outfeed belt in work position follow below sequence:

- remove screws A and B
- loose screws C
- turn on outfeed belt upwards ( see the arrow ).
- screw A and B in their holes ( see fig. 2.3.2 ) and tight nuts.

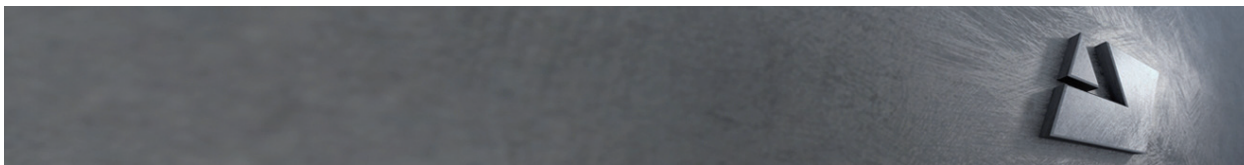




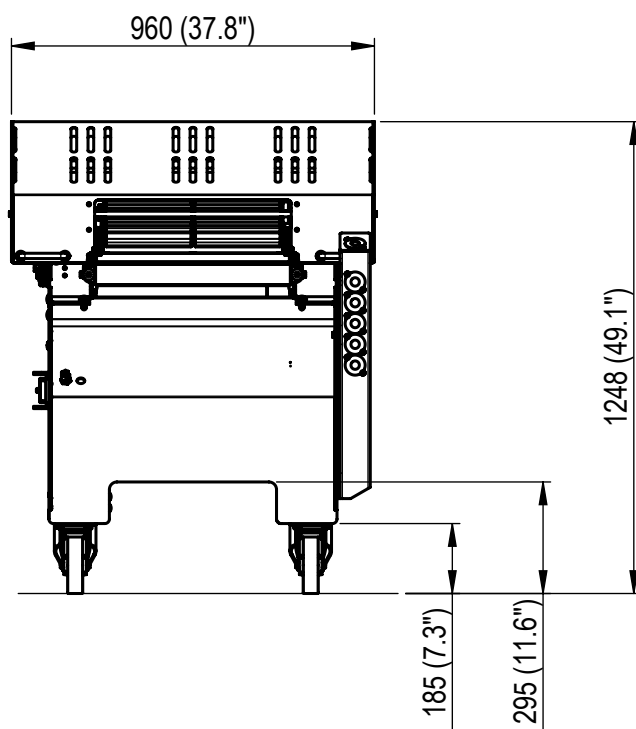
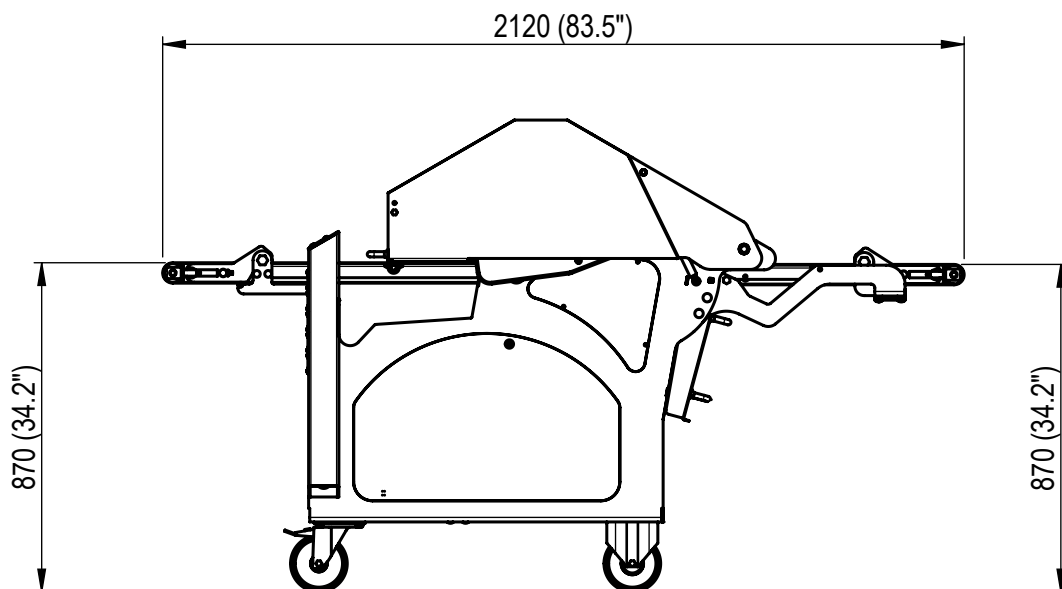
## 2.4. MACHINE CHARACTERISTICS

|                                 |                                    |
|---------------------------------|------------------------------------|
| Machine type:                   | <b>Automatic derinding machine</b> |
| Abbreviation:                   | <b>NAB M</b>                       |
| Power supply:                   | <b>Electric</b>                    |
| Motor:                          | <b>2.2 Kw- 3 Ph - RPM 1400</b>     |
| Work environment:               | <b>Foodstuffs</b>                  |
| Air consumption:                | <b>140 litres/min.</b>             |
| Weight:                         | <b>460 Kg</b>                      |
| Noise level:                    | <b>75 dBA pos.</b>                 |
| Work speed:                     | <b>22 m/min.</b>                   |
| Material in contact with foods: | <b>Conforming to standard</b>      |
| Overall dimensions:             | <b>See pict.2.4.1</b>              |

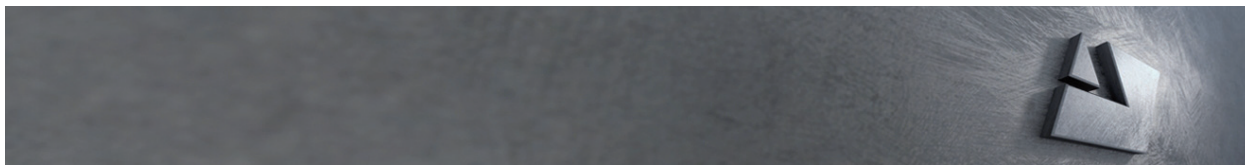
| <b>Motor</b><br><b>Power 2.2 KW 3 HP    Speed 1400 RPM 50 Hz    1680 RPM 60 HZ</b><br><b>Poli 4 Phase</b> |                     |
|-----------------------------------------------------------------------------------------------------------|---------------------|
| 200V-60Hz-----10A                                                                                         | 415V-50Hz-----5,37A |
| 200V-50Hz-----9,19A                                                                                       | 440V-50Hz-----5,75A |
| 200V-60Hz-----9,1A                                                                                        | 440V-60Hz-----4,82A |
| 240V-50Hz-----8A                                                                                          | 460V-50Hz-----6,18A |
| 380V-50Hz-----5,21A                                                                                       | 460V-60Hz-----4,86A |
| 380V-60Hz-----4,8A                                                                                        | 575V-60Hz-----5,2A  |



## MACHINE DIMENSIONS



Pict. 2.4.1



## 2.5. ELECTRICAL CONNECTION



The electric wiring and connections above the machine must be to the local and national electrical standards.

- 1) The machine must be connected to the electric mains **only if the voltage given on the rating plate ( on the right side of the machine it the low right corner ) corresponds to that of the electric mains.**
- 2) The machine must be **connected to earth** correctly by means of the **yellow-green lead.**
- 3) Check that the **infeed belt turns towards to the into the machine** otherwise reverse the polarity.
- 4) **It is compulsory to have the connection made by skilled personnel.**

If the above mentioned points are not observed, the manufacturer shall not be held responsible for damage caused to persons or things.

The standard motor fitted may be used for voltages included between 220 volts and 460 volts indistinctly at 50 Hz or 60 Hz.

If the machine is connected at different voltages to the one indicated on the rating plate, it is necessary to replace the transformer, motor cut-out thermal relay.



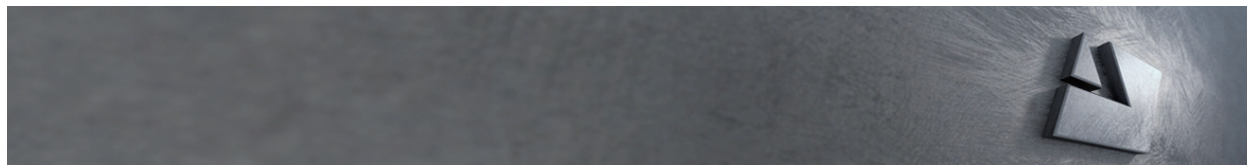
For voltages outside the range 220-460 volts, in addition to the transformer and the thermal relay, replace the motor as well.

## 2.6. PNEUMATIC CONNECTION see Pict. 2.7.1

Connect the machine air inlet (**20**) to the pneumatic network by means of the **1/4 GAS** fast union. Supply pressure must be between **6 and 10 Bar**.

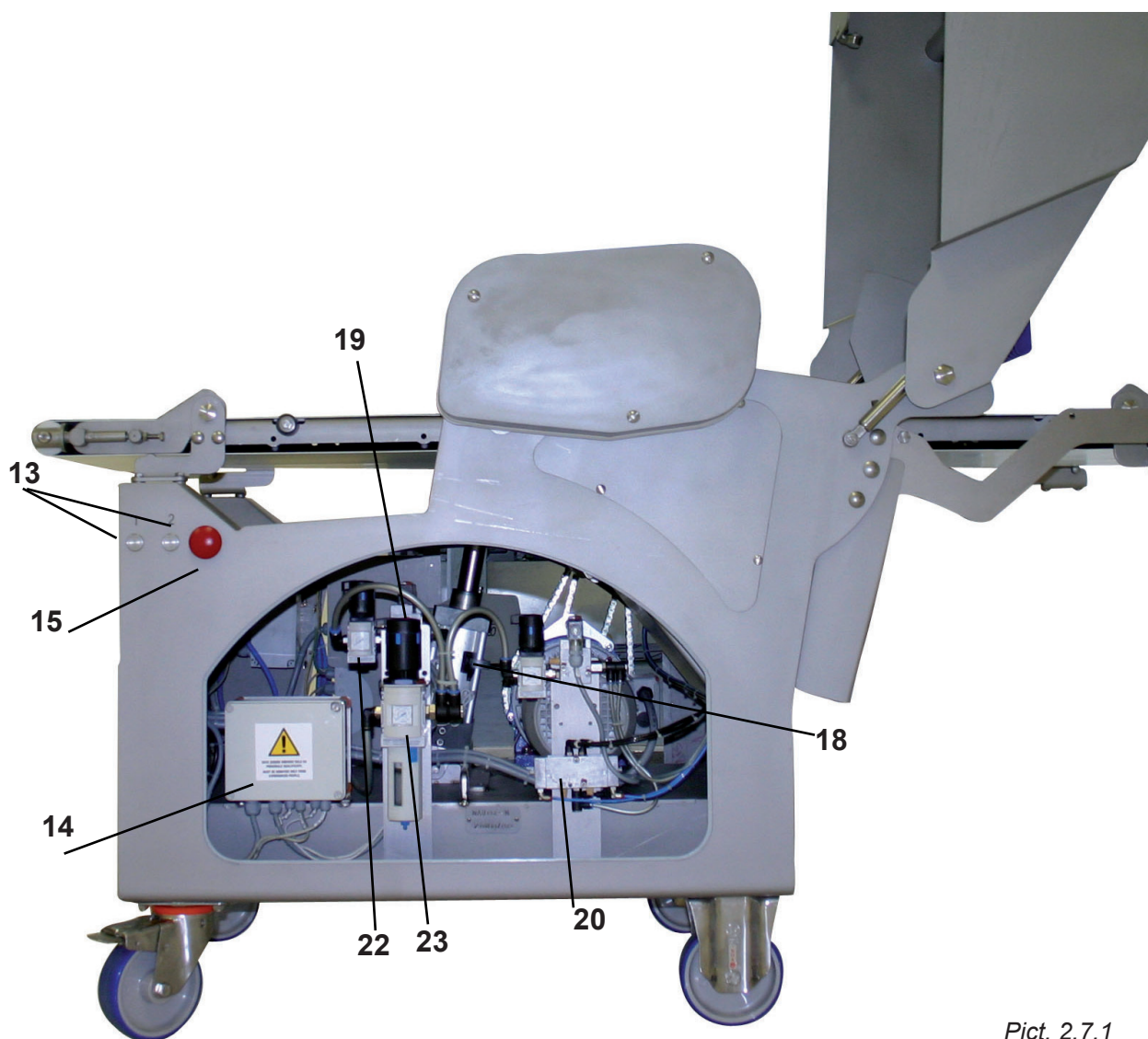
The air supplied must be free from humidity, otherwise it is advisable to insert a check filter. If there is a manual condensation drainage filter, it is advisable to drain it off every time the level reaches **3/4** of the capacity of the container.



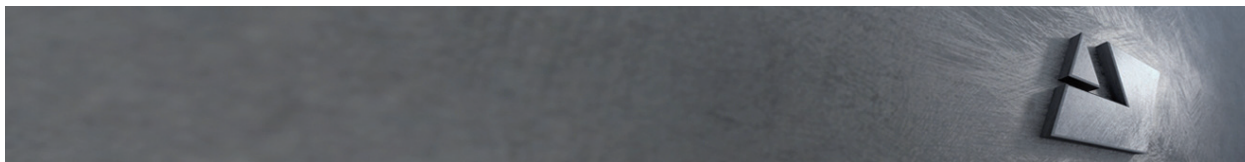


## 2.7. DESCRIPTION OF MAIN COMPONENTS

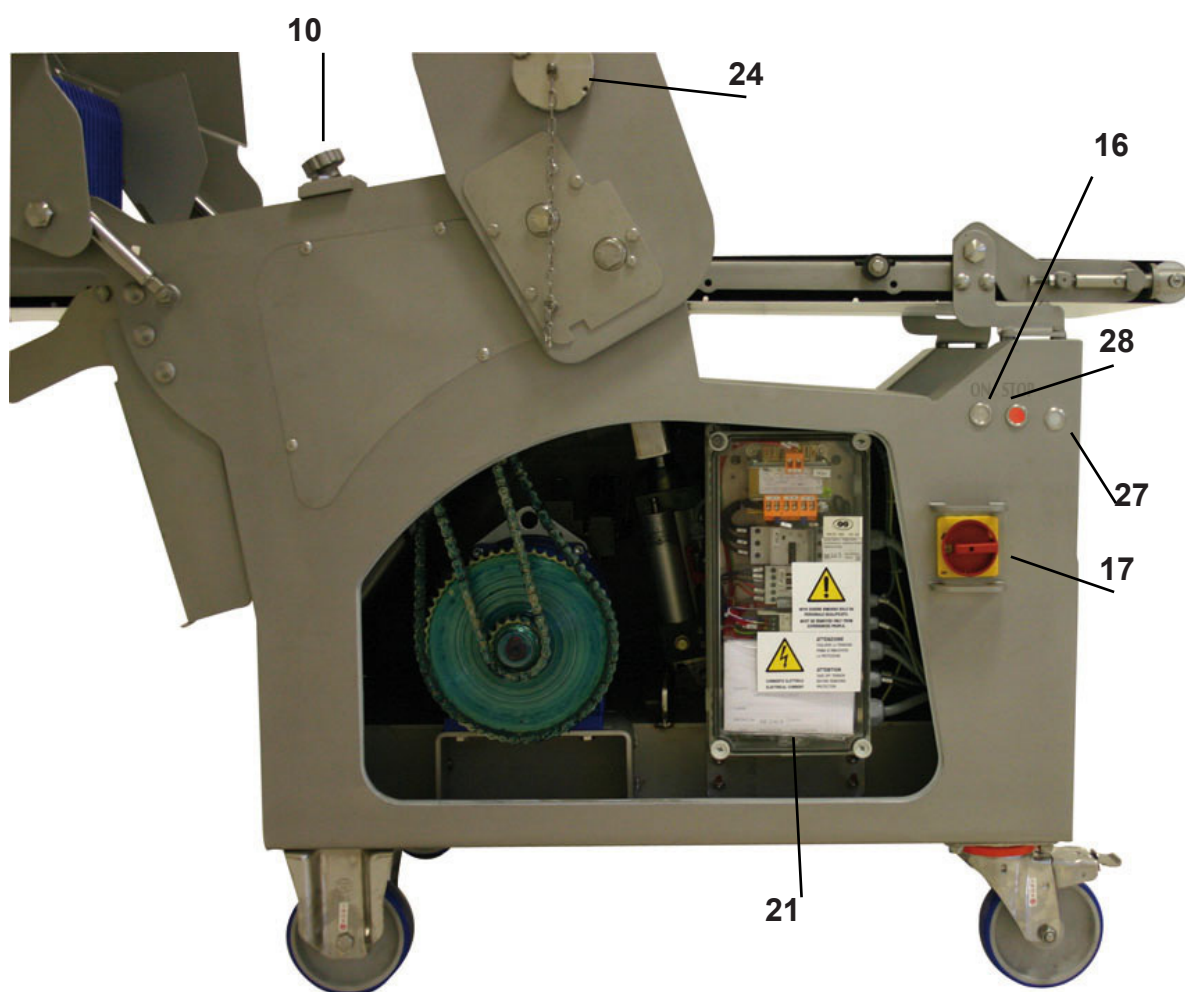
- |                                    |                                              |
|------------------------------------|----------------------------------------------|
| 13) Head position regulator        | 20) Air inlet                                |
| 14) Outfeed belt regulation system | 21) Electrical box                           |
| 15) Emergency button               | 22) Rubber roller air pressure regulator     |
| 16) Start button                   | 23) Filter regulator with air pressure gauge |
| 17) Main switch 0-1                | 24) Rubber roller extraction handwheel.      |
| 18) Magnet                         | 27) Signal lamp                              |
| 19) Cylinder head                  | 28) Stop button                              |



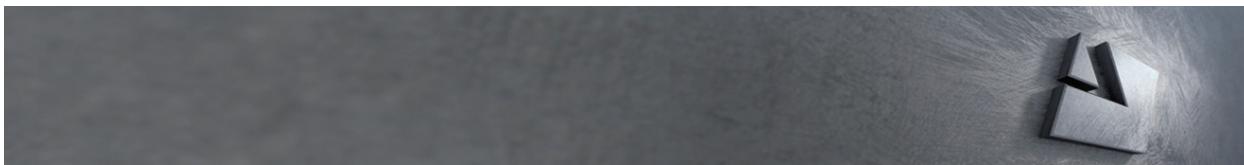
Pict. 2.7.1



## 2.8. STARTING THE MACHINE



Pict. 2.8.1



**Before using the machine read the safety information and instructions with special care (Sect.1)**

**Non-observance of these important instructions may cause accidents.**



**Do not connect machine to electric mains and pneumatic network until it has been fully assembled and fixed in desired working position. Before connecting up to power supply, check that mains voltage corresponds to that given on machine's rating plate.**

### **BEFORE OPERATING** see Pict. 1.5.1 - 2.8.1

After making sure that:

- machine is in the right work area.
- preliminary operations have been carried out, see Sect.2.3 "**Preliminary operations**"
- mains disconnecting switch and main switch 0-1 (**17**) of machine are turned onto position (O) (zero)
- blade holder unit (**7-8-9**) is tightened with the knobs (**10**) and is locked with blade fitted correctly, see Sect.5.3 "**Blade adjustment and replacement**".
- emergency button (**15**) is not pressed, otherwise pull it.
- rubber roller head protection (**3**) is closed.

Proceed connecting machine to electric mains and to pneumatic network. Start processing the product in the following way:

- Activate switch on mains and main switch 0-1 (**17**) of machine by turning them onto position (**1**) (one). At this stage signal lamp (**27**) lights on to signal that machine is powered up.
- Press start button (**16**) and run control test, see Sect.2.9 "**Daily test**".

### **STARTING PROCESSING** see Pict. 2.7.1 e Fig. 2.8.1

Depending on product to be processed:

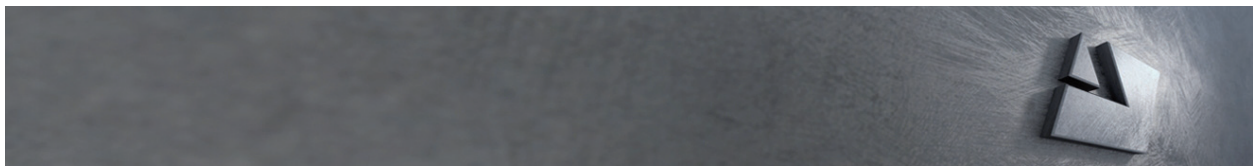
- set gap between rubber roller group (**3**) and blade edge with hight rubber roller unit button (**13**).
- by regulator (**22**), adjust rubber roller group (**3**) pressure exerted on the product.

Product to be processed should be layed with the part to be removed on the top of the infeed belt. The machine carries out its cycle automatically.

Should any problems arise, stop machine (**28**) and refer to Sect.3.2 "**Operating instructions**".



**Keep hands away from any moving parts.  
Never touch the cutting edge of the blade for any reason whatsoever.**



## 2.9. DAILY TEST



**Caution! Always run the test to prevent serious damage**

Carry out the following tests referring to Pict. 2.7.1 and Pict. 2.7.2

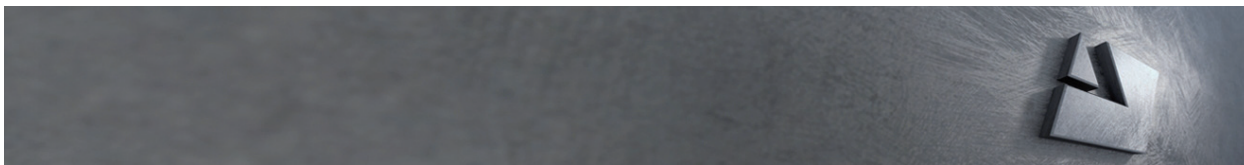
- 1) Press emergency button (15)  
**The machine must stop.**
- 2) Turn main selector 0-1 (17) in position 0 (zero).  
**The machine must stop.**
- 3) Open the front protection (2)  
**The machine must stop.**
- 4) Open the scrap protection  
**The machine must stop.**



**If the machine does not stop, switch it off and immediately notify the foreman.  
Never leave the machine connected when it is unattended.**



**The signal lamp ON signals that the machine is powered up.**



# SECTION

## 3

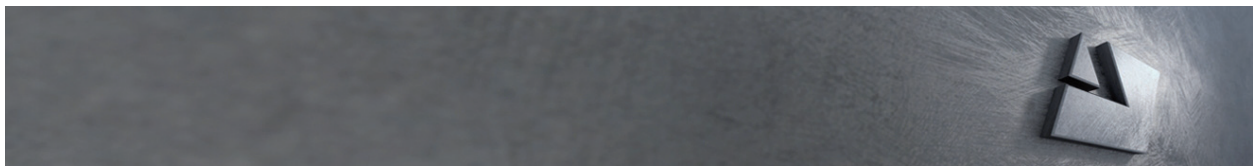
# OPERATION



**Read carefully instructions and safety information (Sect.1) before using machine.**

**Disregards for instructions and safety information can cause injury**





### 3.1. DESCRIPTION OF ESSENTIAL PARTS



**Before using the machine read the safety information and instructions with special care (Sect.1) .**

**Non-observance of these important instructions may cause accidents.**

**MAIN DISCONNECTING DEVICE.** This device controls power supply to machine. It is located on power socket where machine is connected on. Turning it onto 0 (zero) cuts off electric power to machine.



**It is the only switch that cuts off electricity correctly before effecting maintenance.**

#### **DESCRIPTION OF CONTROLS AND ESSENTIAL PARTS** see Pict. 2.7.1

**4) RUBBER ROLLER COMB ASSEMBLY.** It's compose from two comb fixing knobs and from the rubber roller comb. Before removing the comb is necessary unscrewing the knobs.

**10) BLADE HOLDER KNOBS.** By screwing or unscrewing this knobs it is possible to adjust the blade holder stretching more or minus.



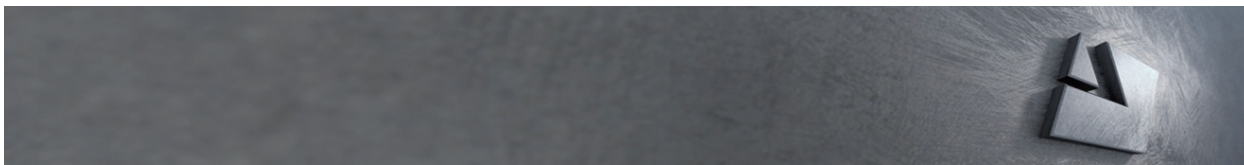
**Screw knobs (10) tightened**

**14) SISTEMA DI REGOLAZIONE NASTRO POSTERIORE.** Permette di regolare l'inclinazione del nastro posteriore. Occorre prima rimuovere le tre viti di fissaggio poi, trovata la posizione ideale, inserirle nelle rispettive sedi.

**15) EMERGENCY BUTTON.** It cuts off the work cycle of the machine. When this button is pressed it is not possible, using machine controls, to operate any mechanism.

**16) START BUTTON.** It starts up machine's work cycle. It must be pressed to restart machine every time button (15) it has been pressed.

**17) MASTER SWITCH.** In its 0 position it cuts off power supply to whole machine. When switch is in position 1, power supply is ON.



**23) FILTER-REGULATOR-PRESSURE GAUGE ASSEMBLY.** It Filters and regulate air supply at approximately **6 kg/cmq. (85 PSI)**.

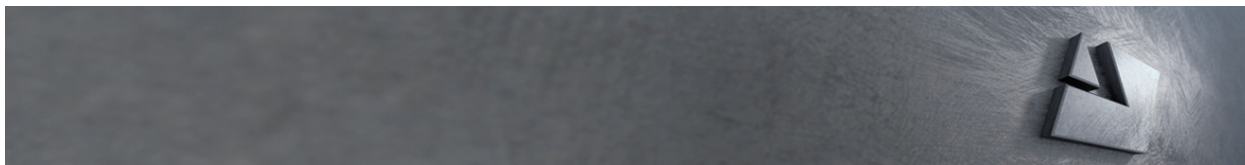
**24) RUBBER ROLLER EXTRACTION HANDWHEEL.** When removing this handwheel (by turning and pulling out it), you can remove rubber roller. Before removing rubber roller you must remove comb assembly **(4)** also.

**27) ON/OFF LIGHT.** Lights up when electric power is ON.



**Never touch the cutting edge of the blade for any reason.**





## 3.2. OPERATING INSTRUCTIONS



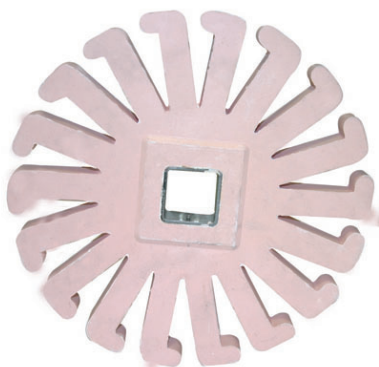
**TUBE ROLLER  
CHICKEN, TURKEY**



**STANDARD COD.412A  
PINK SOFT COD. 412AS**

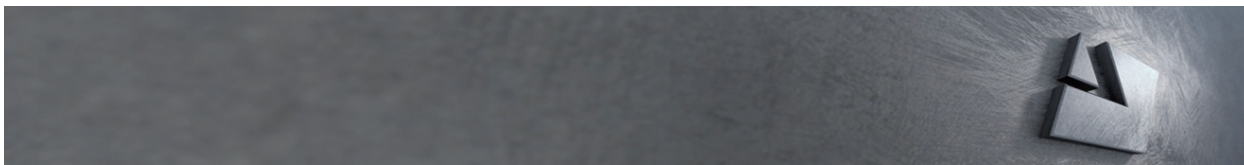


**SMALL SIZE COD.18625AS**



**STANDARD ROLLER WITH ROUNDED  
FOOT COD.412BS**

*Pict. 3.2.1*



**Before using the machine read carefully instructions and safety information (Sect.1) .**

**Non-observance of these important instructions may cause accidents.**

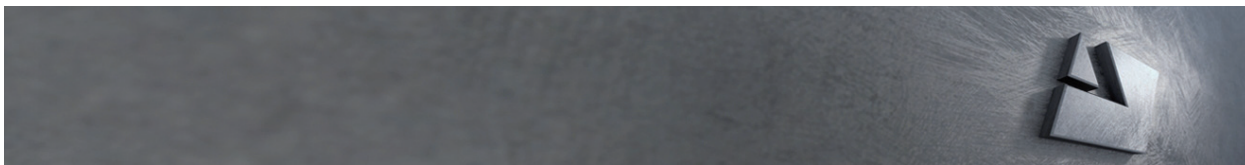
### **TROUBLE TESTS AND CHECKS** see Pict.3.2.1 - 3.2.2

1. See Sect. 2.8 "**Starting the machine**" to prepare machine for use.
2. See Sect. 3.1 "**Machine controls**" for controls description.
3. Make sure all safety devices have been installed correctly.
4. Check manually if the knobs (**10**) are strong screwed.
5. Check blade is correctly fitted , see Sect. 5.3 "**Blade adjustment and replacement**".
6. Start processing as described in Sect.2.8 "**Starting machine**".
7. Verify quality of processing. If this is unsatisfactory, as there are parts of product to be removed, check following points:
  - Rubber roller is well locked in its side support housing.  
Check whether the tightening handwheel (**24**) is turned clockwise.
  - The pressure rubber roller exerts on product to be processed is correct. Otherwise use the knob (**22**). For hot products minimal pressure is advised.
  - In the rubber roller assembly the order of fitting each component comply indications in figures included in this section.
8. Check air pressure supply is not lower than **6 BAR**.
9. Keep clear the area around machine in order to move freely.
10. Should further problem arise or you need further information, please call **GRASELLI** Technical Dept.

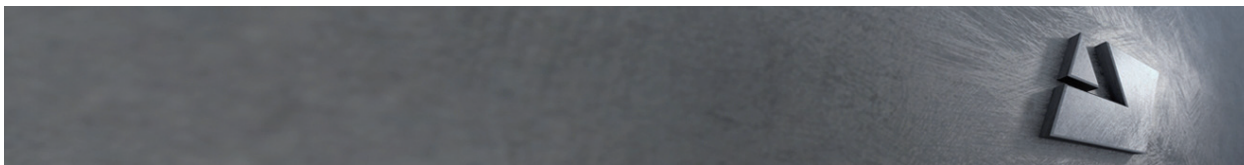


**Never leave the machine connected when it is unattended.**

**Do not touch blade's cutting edge for any reason whatsoever.**



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# SECTION

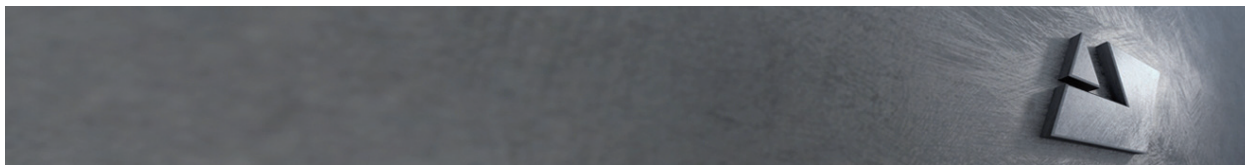
## 4

# CLEANING AND WASHING

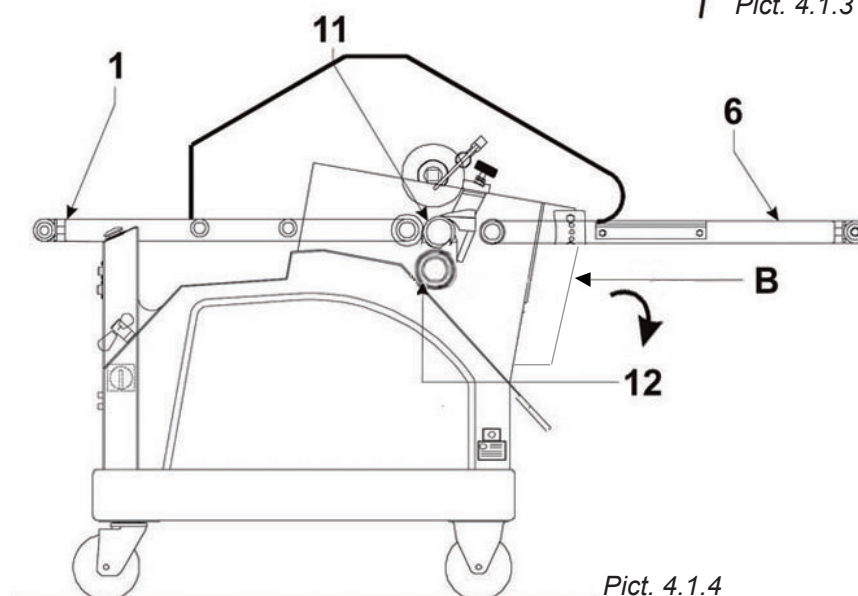
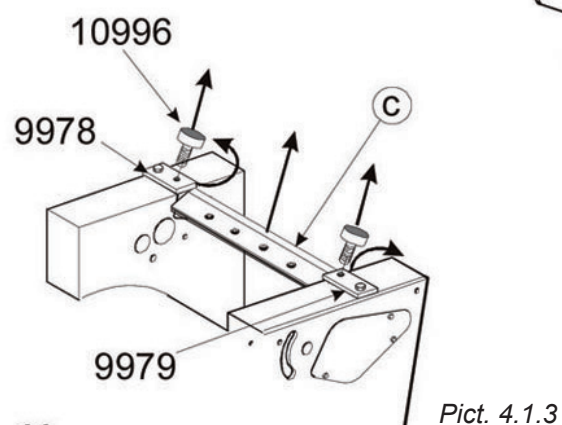
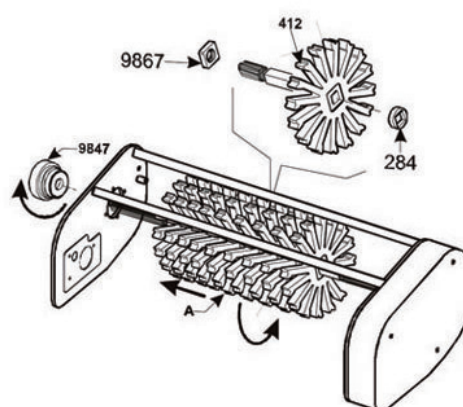
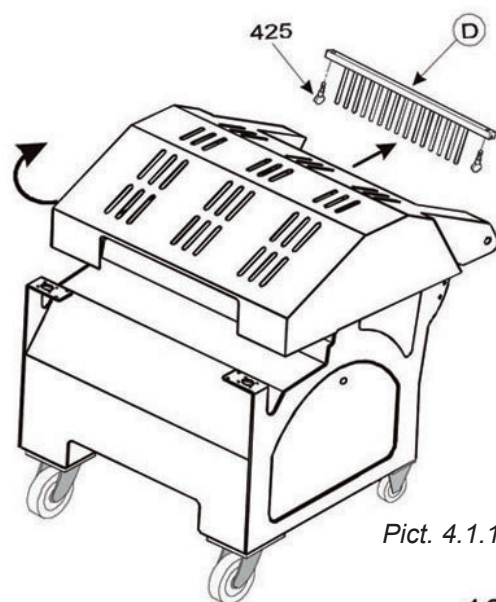


**Read carefully instructions and safety information (Sect.1) before using machine.**

**Disregards for instructions and safety information can cause injury**



## 4.1. CLEANING AND WASHING





## OPERATIONS TO BE DONE AT THE END OF WORK SHIFT

a) **Disconnect the electrical connection.**

- Turn main disconnecting switch onto position 0 (zero).
- Do not rely on the indication of the indicator light as it could be burnt.

b) **Dismantle rubber roller** (see sect. "Replacing rubber roller")

Referring Pict. 4.1.1 - 4.1.2

- Lift the head of rubber roller.
- Unscrew nut (**10726**) which fix right side guard.
- Unscrew wing nut (**425**) and take out rubber roller comb (**9981**).
- Turn knob (**9847**) anticlockwise and remove it.
- Take out the rubber roller (**A**) moving it, as shown by arrows.

c) **Dismantle blade holder unit** (see Sect "Replacement blade holder")

Referring Pict. 4.1.3

- Partially unscrew screws (**10996**) until plates (**9978-9979**) are free to turn 90° and let blade holder unit (**C**) to be taken out.
- Take out blade holder unit (**C**) by means of side hooking rings.
- Take care not to damage dismantled parts.

d) **Open stripper roller comb** see Pict. 4.1.4

- This operation is possible after blade holder unit has been removed. Pull stripper roller comb opening handle (**B**) in the direction indicated by arrow.

e) **Slacken the belts** see Pict. 4.1.4

- Lift upwards belt's frame (**1-6**).

## WASHING AND STERILIZING

a) Wash with hot water (**from 35 to 50C**).

b) Never direct water jet onto blade cutting edge, close to seals or electrical components (damaging hazard).

c) Apply a chemical sterilising agent, whose use is allowed by food sector standards, onto machine and dismantled parts. Leave it working for the necessary time.

d) Rinse detergent off the machine and dismantled parts. This should be done carefully. Use low pressure water jet ( **60 psi from 35 up to 50 gradi**).

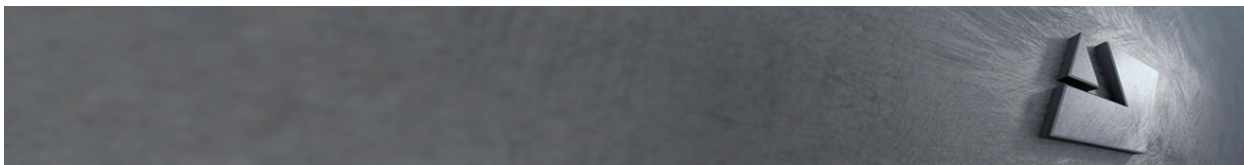
e) Spread a film of oil conform to contact with foodstuff (e.g. Vaseline oil) onto blade's cutting edge

**When washing the machine, pay attention not to damage electric wiring or electric components.**

**Do not insist with water jet close to seals in order to avoid water getting inside machine.**

**To maintain machine in excellent condition for a long period of time, carry out operations described in this section daily.**





## OPERATIONS TO BE DONE BEFORE STARTING THE WORK SHIFT

1. Apply a sterilising agent onto all surfaces that come into contact with product. Use a kind of sterilising agent able to kill germs in contact and compliant with food sector standards.

Parts recommended to be sterilised: see Pict. 4.1.1 - 4.1.2 - 4.1.3 - 4.1.4

- Blade holder unit (**C**).
- Toothroll (**11**).
- Rubber roller (A) and comb (**9981**).
- Conveyor belts (**1-6**).
- Stripper roller comb (**12**).

2. Let sterilising agent run in time and manner indicated in its instructions.

3. Remove any excess sterilising agent.

4. Reset machine in its working order (see operating instructions).



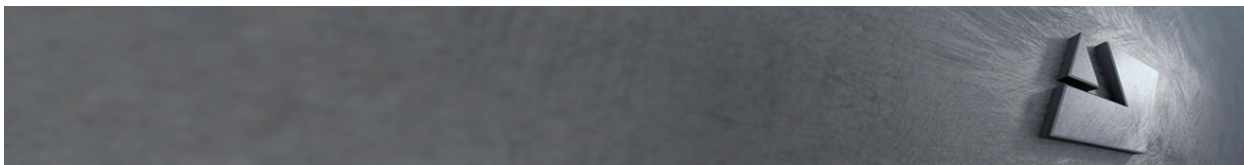
**Never touch the cutting edge of the blades for any reason whatsoever.  
Replace used blades in a special container**

**IT IS ABSOLUTELY FORBIDDEN** to use toxic products that may release noxious elements to the health.



**Blades must be stored in a dry place.**



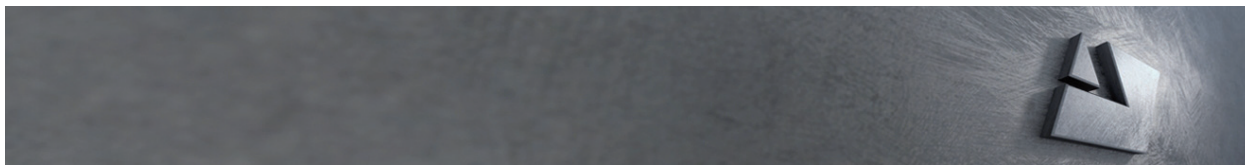


# SECTION 5 MAINTENANCE

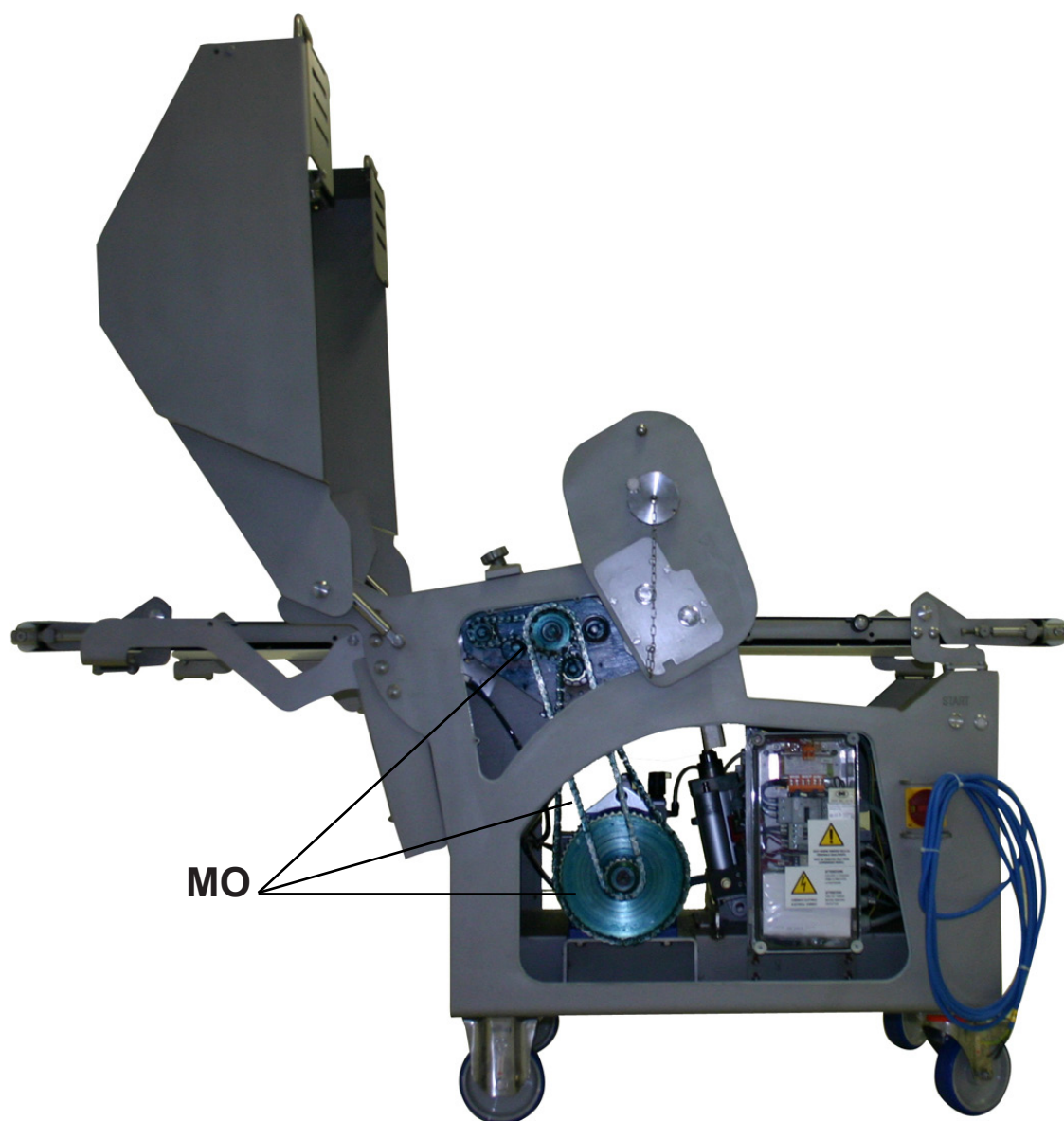


**Read carefully instructions and safety information (Sect.1) before using machine.**

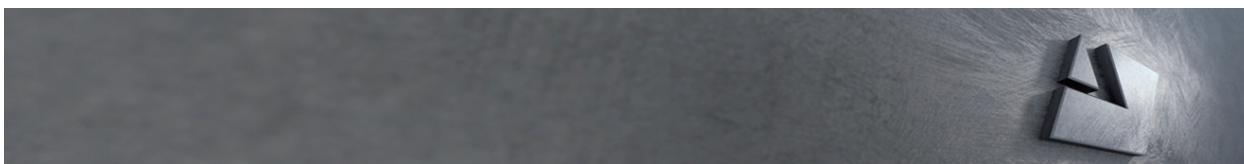
**Disregards for instructions and safety information can cause injury**



## 5.1. POINTS OF PREVENTIVE MAINTENANCE



Pict.5.1.1



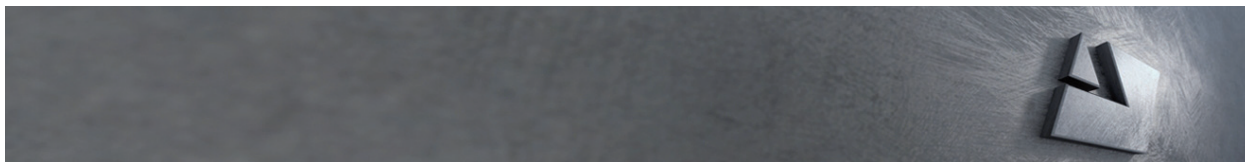
**Before using the machine read carefully safety information and instructions (Sect.1).**

**Disregards for instructions and safety information can cause injury.**

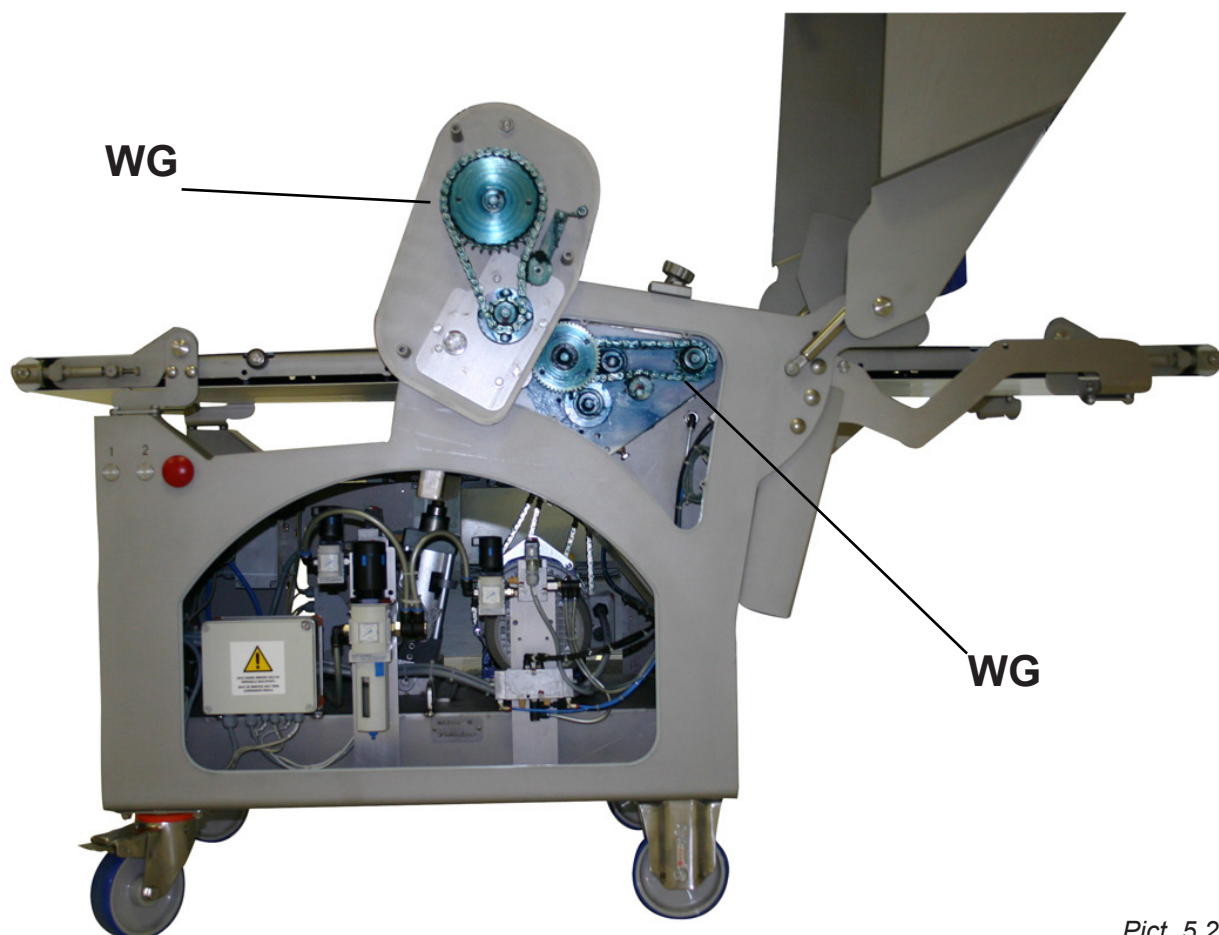
**Please follow the given schedule:**

**DA= Daily WE=Weekly MO=Monthly**

| <b>Points of preventive maintenance</b>                                                  | <b>DA.</b> | <b>WE.</b> | <b>MO.</b> |
|------------------------------------------------------------------------------------------|------------|------------|------------|
| Clean machine.                                                                           | 0          |            |            |
| Check operation of all electrick components<br>Run <b>daily test ( see Sect. 2.9 )</b> . | 0          |            |            |
| Check blade and blade holder state.                                                      | 0          |            |            |
| Check spring and screw conditions.                                                       | 0          |            |            |
| Check clearance beetwee toothroll and bladeholder.                                       | 0          |            |            |
| Check condition of rubber rollers and conveyor belts.                                    | 0          |            |            |
| Check overall condition of machine.                                                      |            | 0          |            |
| Drain off condensate water in air filter.                                                |            | 0          |            |
| Perform weekly lubrication ( <b>see Sect. 5.2</b> ).                                     |            | 0          |            |
| Check condition of drive components: chains, pinions and gears.                          |            |            | 0          |
| Check pneumatic system overall efficiency.                                               |            |            | 0          |
| Perform monthly lubrication ( <b>see Sect. 5.2</b> ).                                    |            |            | 0          |

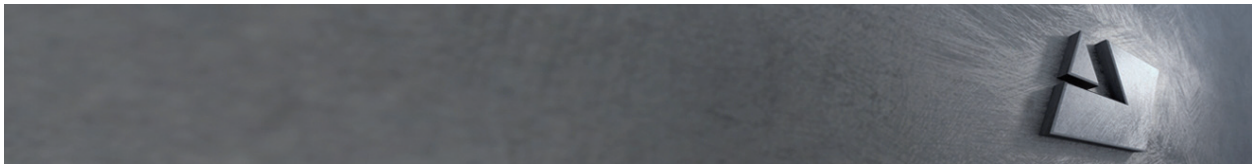


## 5.2. LUBRICATION



Pict. 5.2.1

| LUBRICANT TYPE |                               |
|----------------|-------------------------------|
| EO             | Oil suitable for food contact |
| WG             | Chain water proof grease.     |



Lubrication is essential to keep the machine at peak efficiency over time.

Lubricants that come in contact with food products must have the necessary approvals.

**The table below indicates: :**

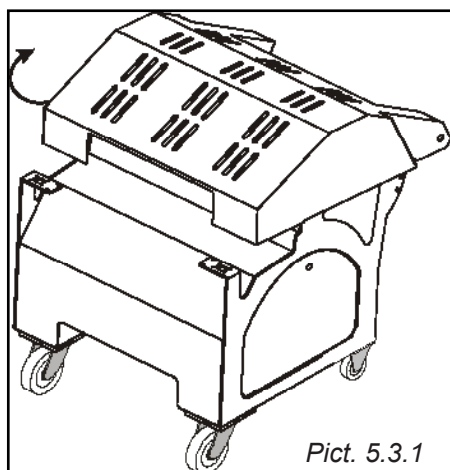
- lubrication frequency: DA= Daily WE=Weekly MO=Monthly
- type of lubricant.
- points to lubricate.

| POINT OF LUBRICATION                  | Lub | DA | WE | MO |
|---------------------------------------|-----|----|----|----|
| Lubricate toothroll and blade holder. | EO  | 0  |    |    |
| Lubricate chains.                     | WG  |    |    | 0  |

## 5.3. BLADE REPLACEMENT AND ADJUSTMENT

### CAUTION !

Before proceeding with the following operations, disconnect the electric and pneumatic connections. Use the special safety gloves.



### BLADE REPLACEMENT

- a) Lift rubber roller head (pict.5.3.1).

Referring Pict.5.3.2:

- Loosen screws (E).
- Remove blade holder top plate (B) and take out worn blade (A).
- Clean carefully blade housing seat.
- Fit new blade (A) laying it on registers (092) level must be turned upwards.
- Reassemble all in reverse order to the above description.

### SETTING BLADE POSITION

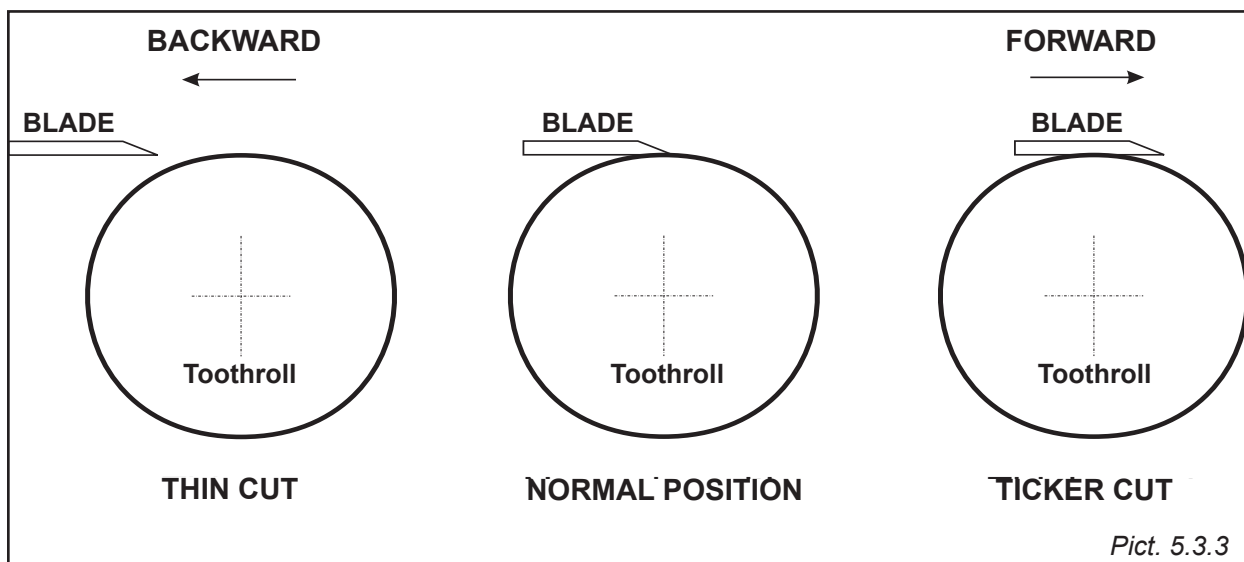
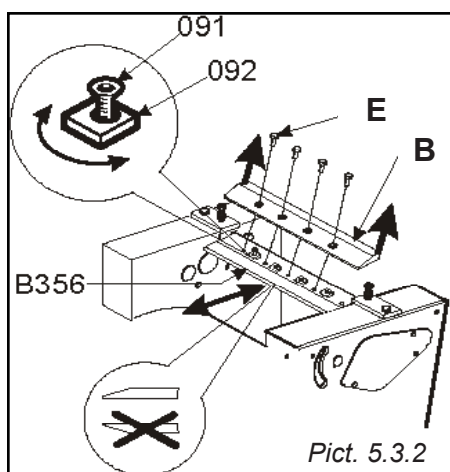
- Lift rubber roller head (pict.5.3.1).
- Loosen screws (E) remove blade holder top plate (B).
- Loose screws (091) and turn registers blocks (092) until you get desired position (pict.5.3.3).

Moving blade :

- **towards toothroll**  
you obtain an **increase in thickness removed**
- **towards blade holder plate**  
you obtain an **decrease in thickness removed**

- d) Blade edge must be parallel to toothroll teeth.

**Warning: use only 0.7mm thick blades.**  
**Never contact the cutting edge of blade.**

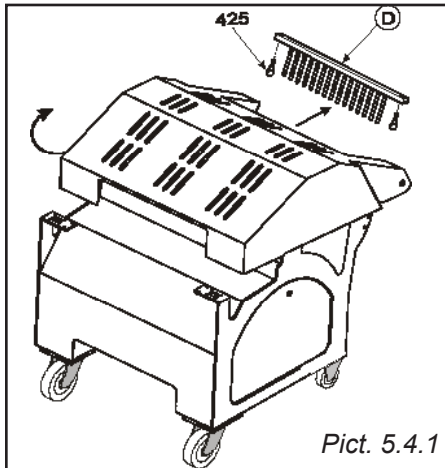




## 5.4. REPLACEMENT OF RUBBER ROLLER

### CAUTION !

Before proceeding with the following operations, disconnect the electric and pneumatic connections. Use the special safety gloves.



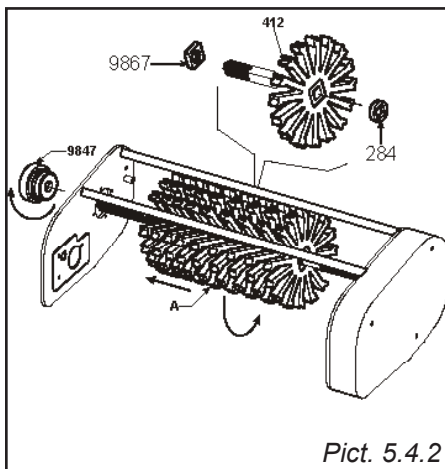
### REPLACEMENT OF RUBBER ROLLER ASSEMBLY

Referring pict. 5.4.1

- a) Open rubber roller head.
- b) Loose left side guard's locking nut.
- c) Unthread rubber roller comb (9981) unscrewing comb locking wing nut (425).

Referring pict. 5.4.2

- d) Unscrew knob (9847) anticlockwise until it's completely loose.
- e) Remove rubber roller (A) pulling towards the hole formerly occupied by knob (9847) and then pulling outwards.
- f) Replace worn rubber roller with a new one. Remount it following preceding steps in reverse order.

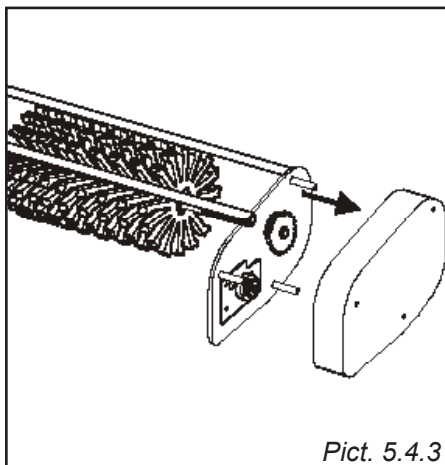


### REPLACEMENT OF RUBBER ROLLER'S ELEMENTS

- a) Dismantle rubber roller as indicated in previous paragraph "Replacement of rubber roller".

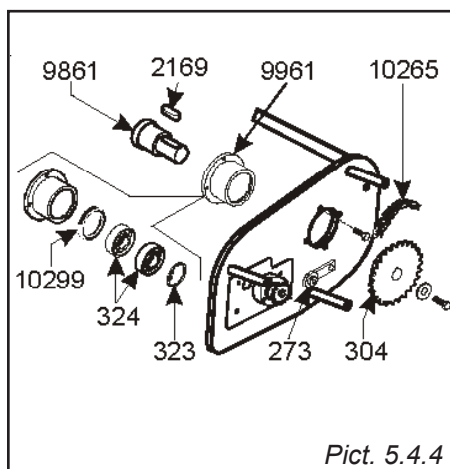
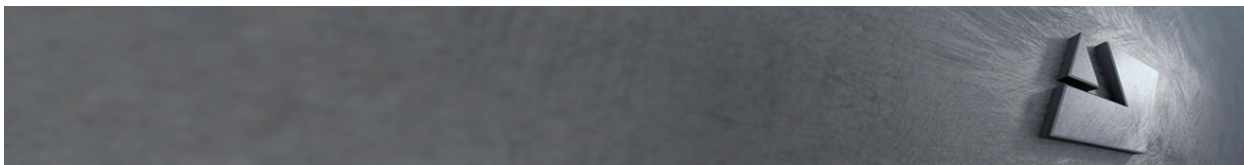
Referring pict. 5.4.2

- b) Stop rubber roller pin (9768) then unscrew ring nut (9867) using tool supplied with machine.
- c) Unthread worn rubber roller elements (rings) (412) and spacers (284): Replace worn ring and spacers with new ones paying attention in re-assembling new elements in the same order as before
- d) When the work is done tight ring nut (9867) and remount rubber roller on machine (see Sect. "Replacement of rubber roller assembly"). Then reassemble everything following preceding steps in reverse order. Pay attention when tightening ring nut (9867) on machine with comb inserted. Rubber roller should run smooth and it should be parallel respect comb axis. (9981).



**NB: Rubber roller composition (ring sequence) could be customised for particular processing. When replacing rubber roller pay attention in keeping the same sequence of replaced parts.**





Pict. 5.4.4

## REPLACEMENT OF RUBBER ROLLER DRIVE PIN

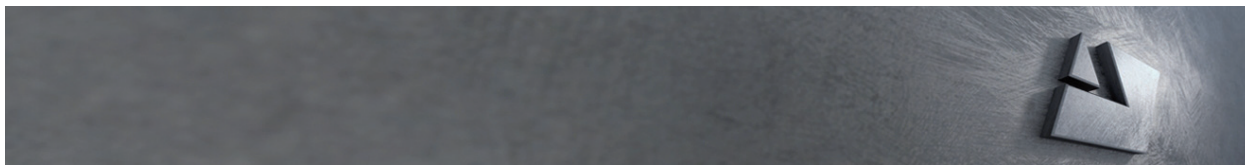
- a) Dismantle rubber roller following sequence as **“Replacement of rubber roller assembly”**.
- b) Dismantle right side guard (Pict. 5.4.3)

Referring pict.5.4.4

- c) Loose chain stretcher (**273**) and open chain (**10265**).
- d) Dismantle rubber roller pinion (**304**) and take out key (**2169**).
- e) Unthread rubber roller drive pin (**9861**) and replace it.

Should bush component replacing be required proceed as follows :

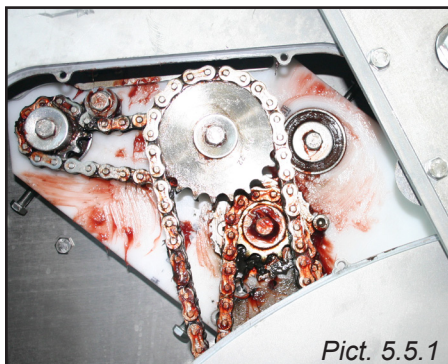
- f) Unscrew the screw that fixed bush to rubber roller side.
- g) Leave out snap ring (**323**).
- h) Extract bearings (**324**) and oil seal (**10299**).
- i) Replace worn elements. Then reassemble everything following preceding steps in reverse order. Grease oil seal and bearings before inserting new rubber roller drive pin.



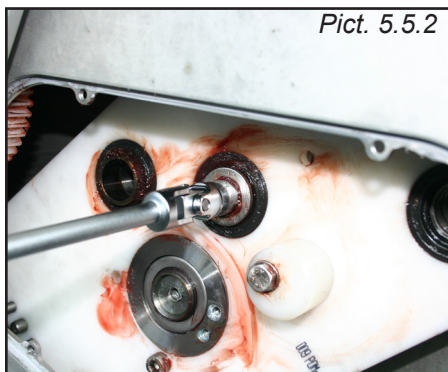
## 5.5. 5.5.TOOTHROLLER REPLACEMENT

### WARNING!

Before proceeding, please make sure all electrical and pneumatic supplies are disconnected.  
Please use the cut proof gloves.



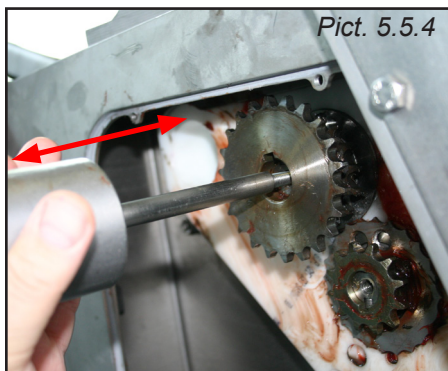
Pict. 5.5.1



Pict. 5.5.2



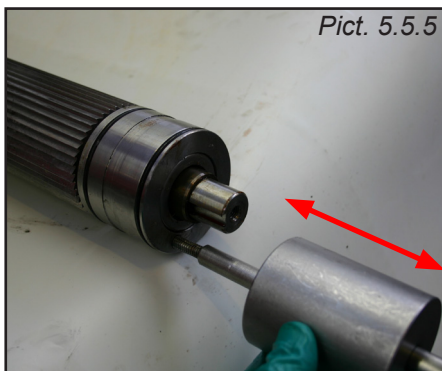
Pict. 5.5.3



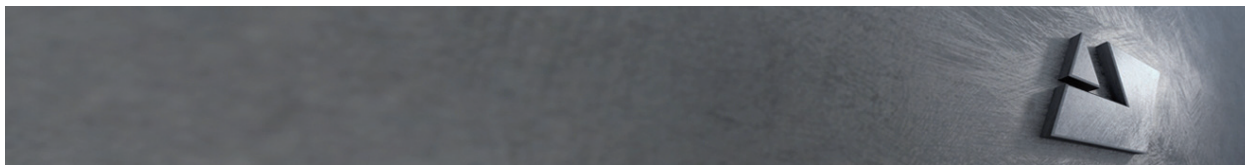
Pict. 5.5.4

### TOOTHROLLER REPLACEMENT

- Remove the blade holder.
- Remove chain and pinion. (pict. 5.5.1)
- Undo the screw on the right hand side of the machine. (pict. 5.5.2)
- Loosen the screw locking the bushing of the toothroller (pict. 5.5.3)
- Pull out the toothroller from the side of the pinion by using the hammer extractor (pict. 5.5.4).
- Remove the bushing from the toothroller (pict. 5.5.5) by putting the extractor inside the M8 threaded hole.
- Replace the toothroller, grease the bearings and put back in reversed order.



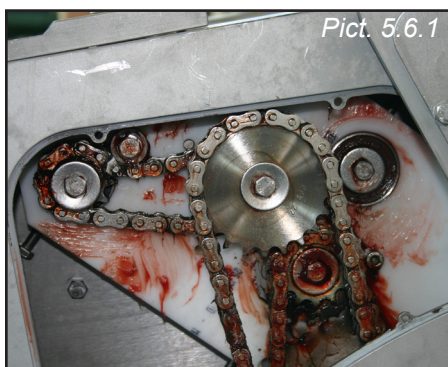
Pict. 5.5.5



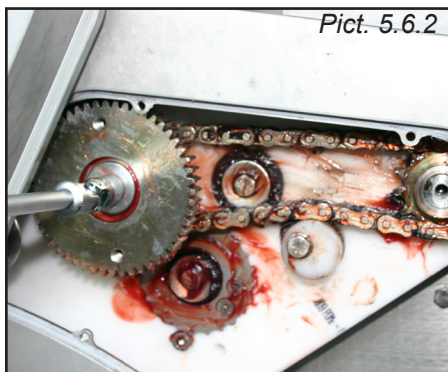
## 5.6. COUNTER ROLLER REPLACEMENT

### WARNING!

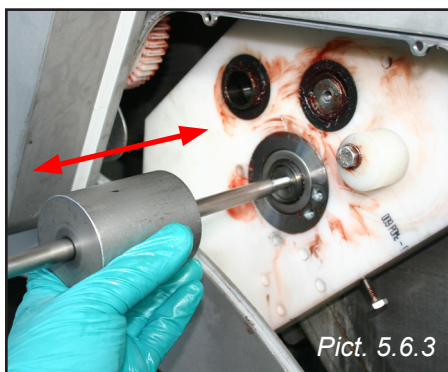
Before proceeding, please make sure all electrical and pneumatic supplies are disconnected. Please use the cut proof gloves.



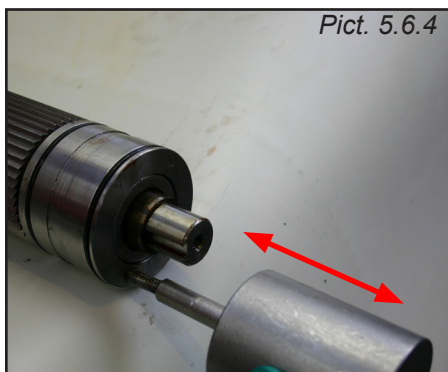
Pict. 5.6.1



Pict. 5.6.2



Pict. 5.6.3



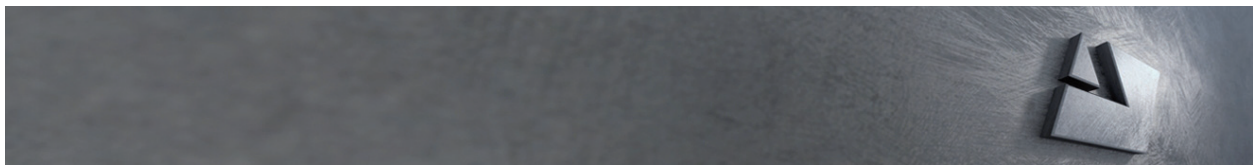
Pict. 5.6.4

### COUNTER ROLLER REPLACEMENT

- Remove the chain and the pinion from the left hand side (Pict. 5.6.1)
- Remove the gears from the right hand side (Pict. 5.6.2)
- Remove the plate, undo the screw on the counter roller (Pict. 5.6.2)
- Mark the original position, pull out the counter roller with the dedicated tool. Loosen the screw. (Pict. 5.6.3)
- Pull the bushing out, replace the counter roller putting the cams in the original position
- Install following the reversed order.

**Adjust the gap between toothroller and counter roller that must be between 0,05-0,10 mm**

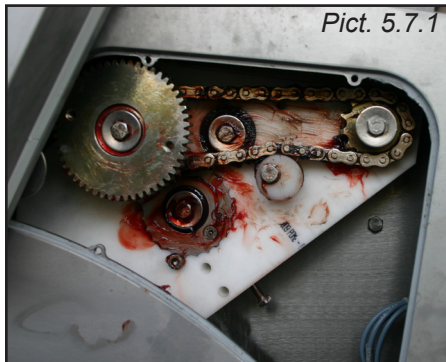




## 5.7. REPLACEMENT OF CONVEYORS AND BELTS

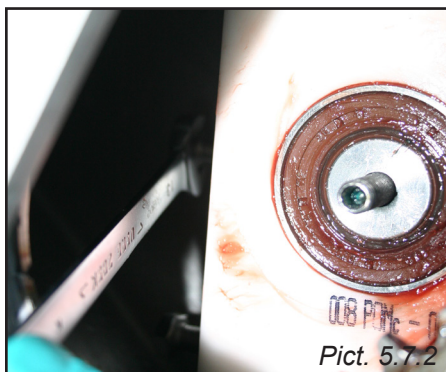
### WARNING!

Before proceeding, please make sure all electrical and pneumatic supplies are disconnected.



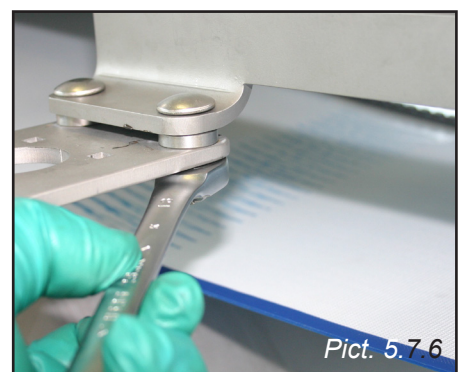
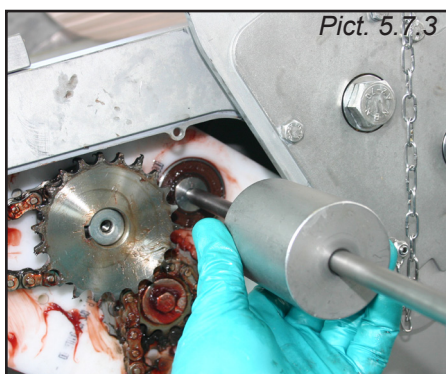
### IN FEEDING CONVEYOR DRIVING PIN REPLACEMENT

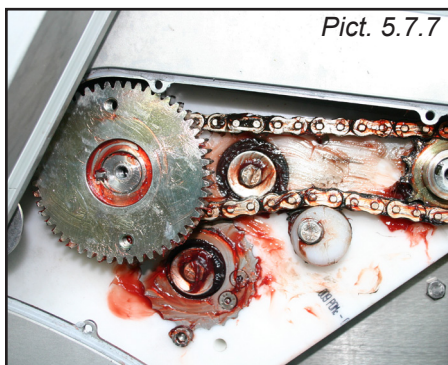
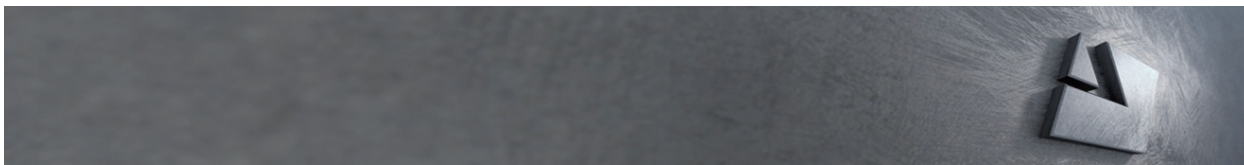
- a) On the right hand side open the chain, remove the gears and the pinion (Pict. 5.7.1)
- b) Loosen the bushing locking screw on the left hand side of the machine (Pict. 5.7.2)
- c) Take the chain off the toothroller pinion (Pict. 5.7.4).
- d) Pull the roller out with the extractor (Pict. 5.7.3) .
- e) Change the roller (Pict. 5.7.4) and put all back in reversed order.



### IN FEEDING BELT REPLACEMENT

- a) Proceed as described in the above paragraph until point e)
- b) Undo the screws (Pict. 5.7.5) on both sides.
- c) Remove both frames locking screws (Pict. 5.7.6)
- d) Remove the frame, exchange the belt, reinstall the frame and install the pin.





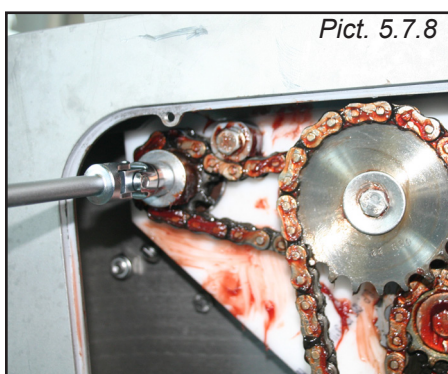
## OUT FEEDING CONVEYOR DRIVING PIN REPLACEMENT

Right hand side:

- Open the chain, remove the gears and the pinion (Pict. 5.7.7)

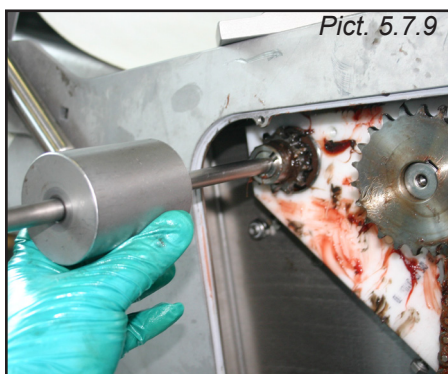
Left hand side:

- Remove the chain and the pinion and loosen the screws. (Pict. 5.7.8)
- Screw the pin in with the extractor end and pull it out. (Pict. 5.7.9)
- Remove the bushing from the pin, change the pin and put all back in reversed order



## OUT FEEDING BELT REPLACEMENT

- Proceed as described in the above paragraph until point c)
- Loosen the screws A (Pict. 5.7.10) on both sides.
- Undo the screws from the conveyor support on both sides (Pict. 5.7.11)
- Remove the frame, exchange the belt, reinstall the frame and install the pin (Pict. 5.7.9)



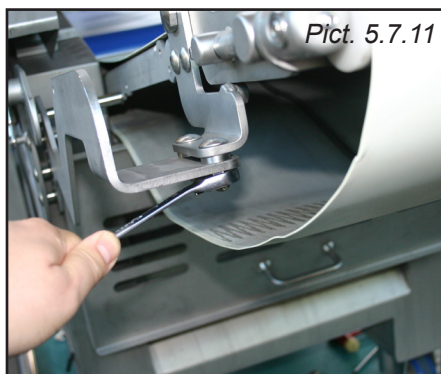
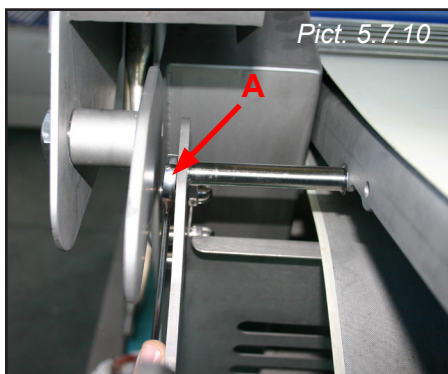
## CONVEYOR BEARINGS REPLACEMENT

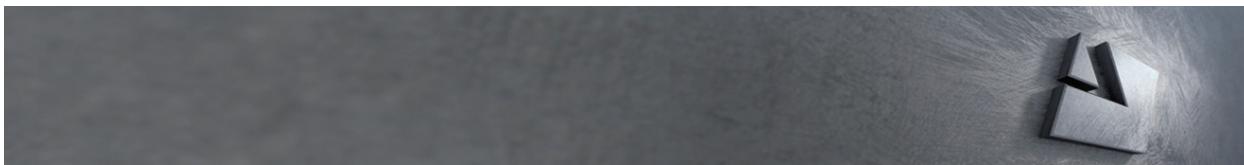
Bushing side:

- Pull the roller out (see previous paragraph "IN FEEDING CONVEYOR")
- Remove the bearings from the bushing after removing it from the pin and replace them.

Support side:

- Proceed as described above.
- Remove the bushing with the extractor and replace them (Pict. 5.7.12).





# SECTION

## 6

# PNEUMATIC SYSTEM

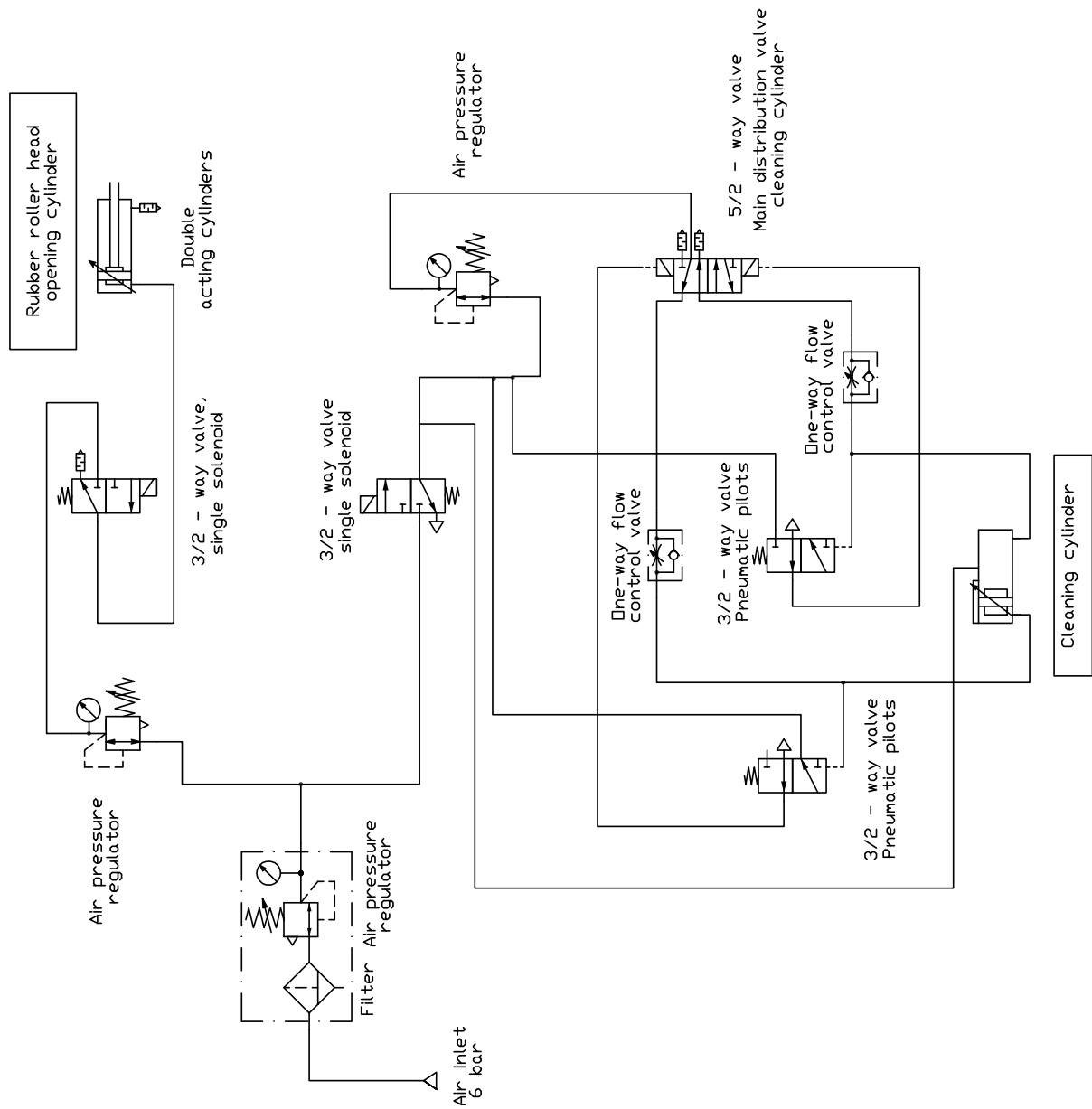


**Read carefully instructions and safety information (Sect.1) before using machine.**

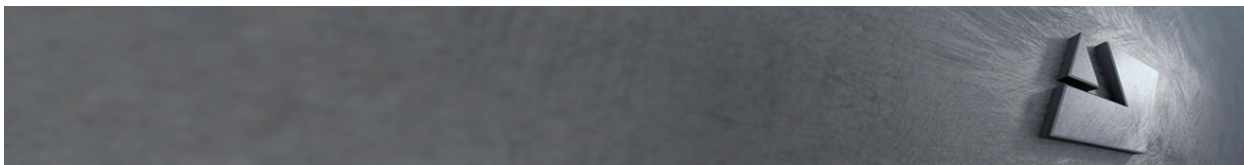
**Disregards for instructions and safety information can cause injury**



## 6.1 PNEUMATIC SYSTEM







# SECTION

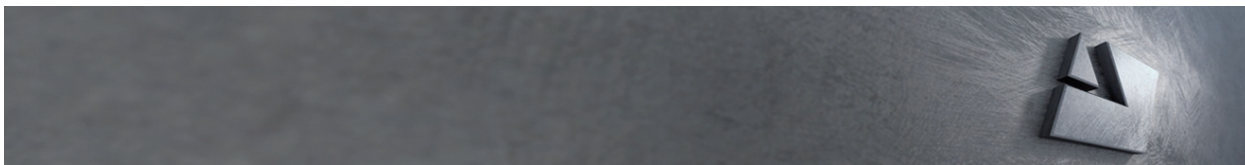
# 7

# ELECTRIC WIRING

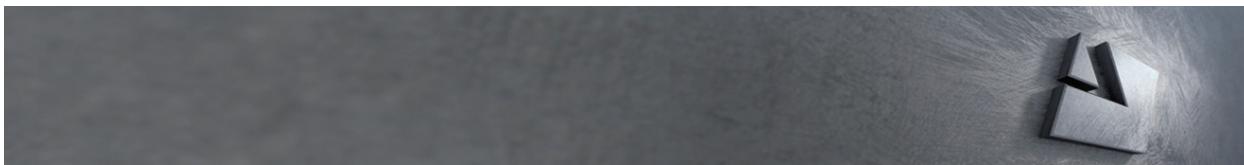


**Read carefully instructions and safety information (Sect.1) before using machine.**

**Disregards for instructions and safety information can cause injury**



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# SECTION

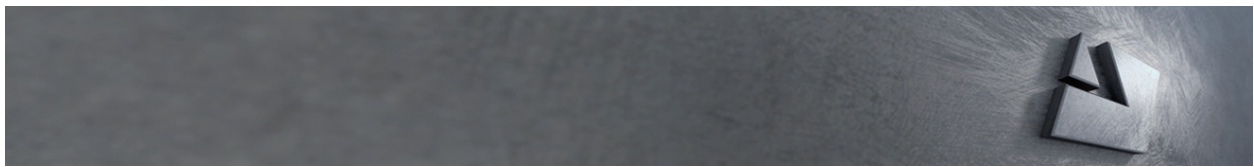
## 8

# FAILURES AND REPAIRS



**Read carefully instructions and safety information (Sect.1) before using machine.**

**Disregards for instructions and safety information can cause injury**



## **8. 1. TROUBLE-SHOOTING**

### **a) The machine will not start**

- 1) Electric power connection not correct.
- 2) Safety switches not positioned correctly.
- 3) Emergency buttons pressed.
- 4) Thermal cut-out released.

### **b) The machine does not work correctly**

- 1) Blade not fitted.
- 2) Blade not sharp enough.
- 3) Blade position not correct.
- 4) Blade holder knobs not tightened properly.
- 5) Stripper roller damaged.
- 6) Product not suitable for processing (cut badly, frozen, dry).
- 7) Distance between stripper roller and blade holder not correct.

### **c) Patches of product not removed**

- 1) Blade not fitted correctly.
- 2) Rubber roller not of appropriate type.
- 3) Rubber roller height not correct.
- 4) Pressure exerted by rubber roller on product not correct.



**d) Thickness removed too great**

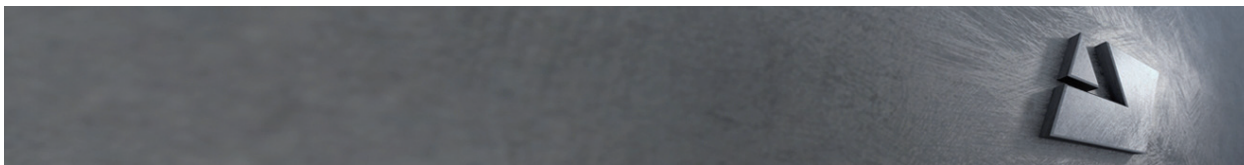
- 1) Blade not fitted correctly.
- 2) Blade position not correct.
- 3) Check the wear on the blade holder springs.
- 4) Blade holder knobs not tightened sufficiently.
- 5) Distance between stripper roller and blade holder too great.

**e) Damaged product**

- 1) Rubber roller pressure too great.
- 2) Rubber rollers positioned badly.
- 3) Incorrect rubber roller for the application.

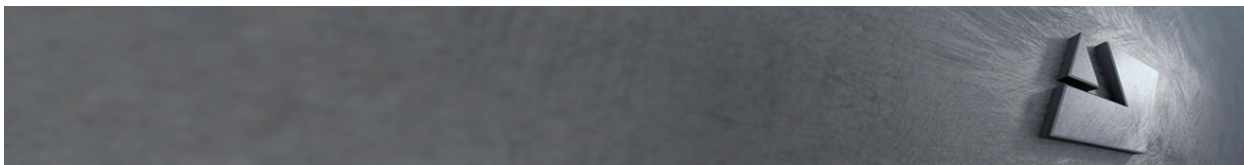
**f) Excessive wear on stripper roller**

- 1) Blade holder damaged.
- 2) Stripper roller bearings to be replaced.
- 3) Incorrect gap between toothroller and blade holder.



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# SECTION

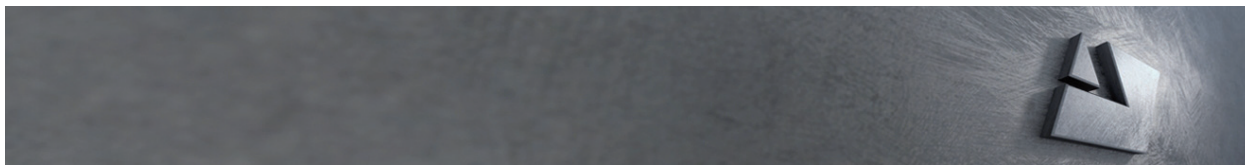
## 9

# SPARE PARTS



**Read carefully instructions and safety information (Sect.1) before using machine.**

**Disregards for instructions and safety information can cause injury**



## 9.1. DESCRIPTION OF SPARE PARTS SECTION

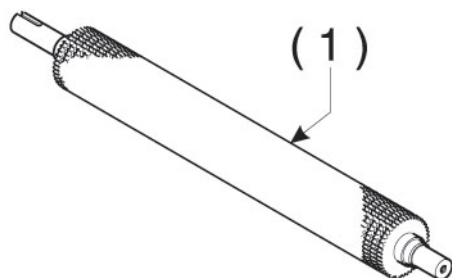
To identify parts easily, the machine has been split up into well defined units by means of exploded drawings.

Each exploded unit is followed by a page giving:

CODE NUMBER.  
PART NAME.  
QUANTITY USED.

The spare parts identified by a letter or a number have differing part numbers according to the variables of the machine.

Example:



(1) TOOTHROLLER

|         |                      |
|---------|----------------------|
| /12441  | TOOTHROLLER Z=44     |
| /124426 | TOOTHROLLER Z=60     |
| /12443  | TOOTHROLLER Z=88     |
| /12444  | TOOTHROLLER Z=88 30° |

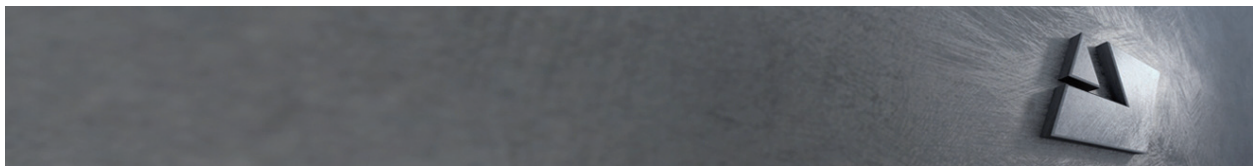
\* Shown part numbers are given as mere example and not necessarily real

For any further information please contact:



Via S. D'Acquisto, 2/C - 42020 ALBINEA - Reggio Emilia - Italy  
Tel. 0522 599745 - Fax. 0522 598147  
<http://www.grasselli.com> - Email : [info@grasselli.com](mailto:info@grasselli.com)

Or the area dealer.



## 9.2. EXAMPLE OF CORRECT ORDERING

When ordering a spare part, specify in detail:

**Machine Type**

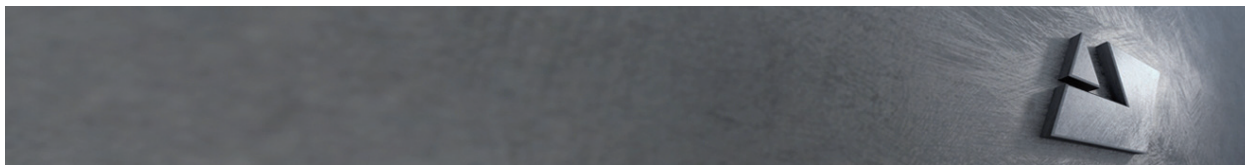
**Machine Serial Number**

**Part Number**

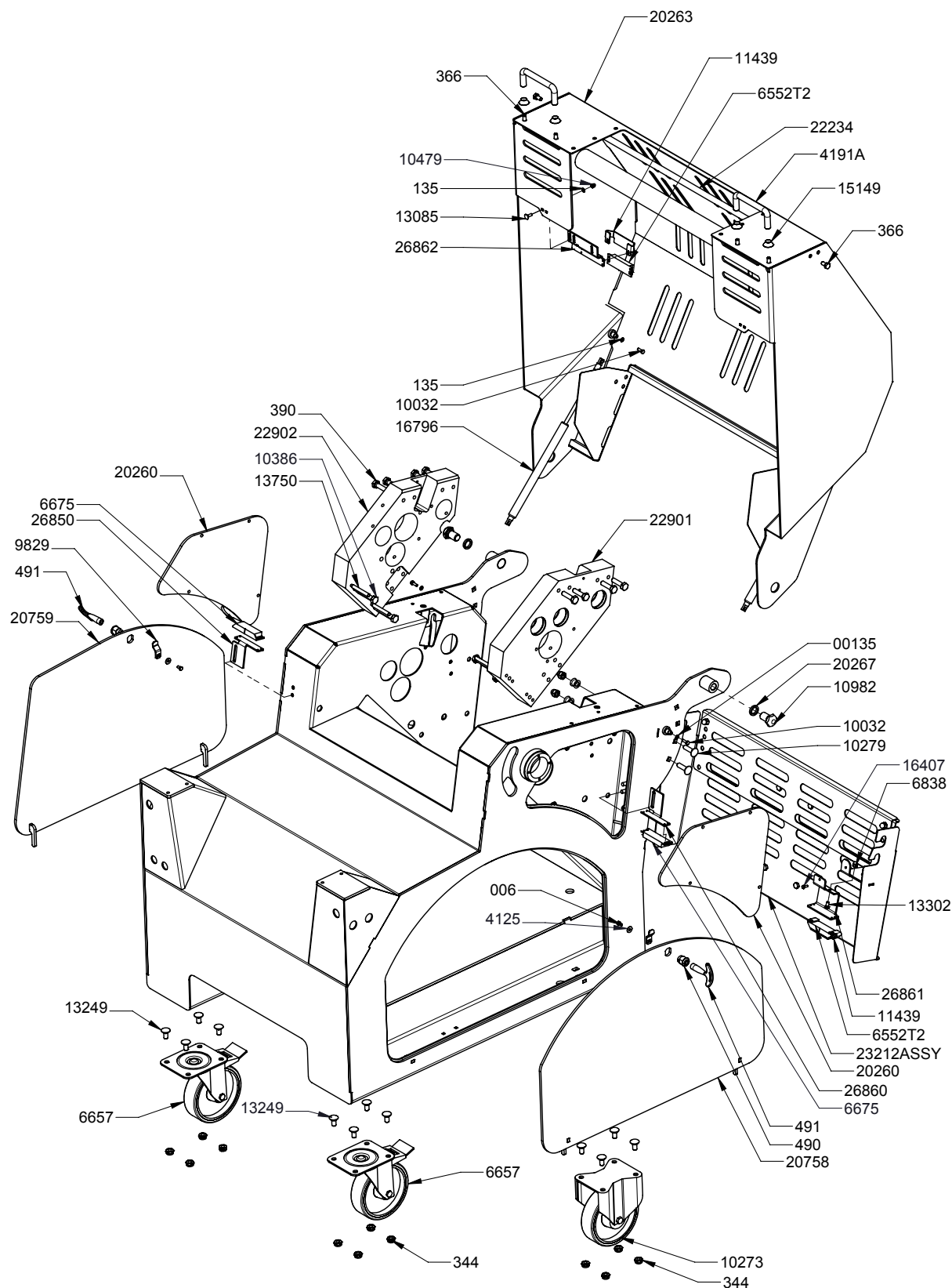
**Part Description**

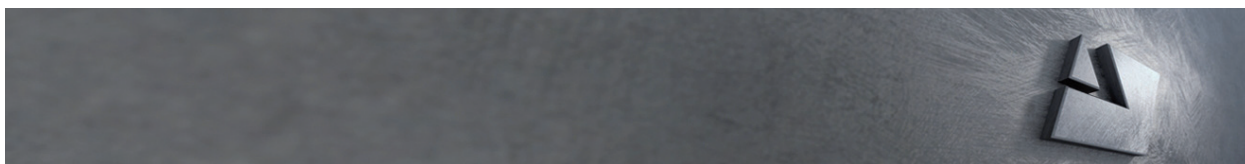
### Spare part order form

|                     |                    |           |
|---------------------|--------------------|-----------|
| <b>COMPANY</b>      | _____              |           |
| <b>MACHINE TYPE</b> | _____              |           |
| <b>SERIAL N.</b>    | _____              |           |
| <b>CODE</b>         | <b>DESCRIPTION</b> | <b>N.</b> |
|                     |                    |           |
|                     |                    |           |
|                     |                    |           |
|                     |                    |           |
|                     |                    |           |
|                     |                    |           |
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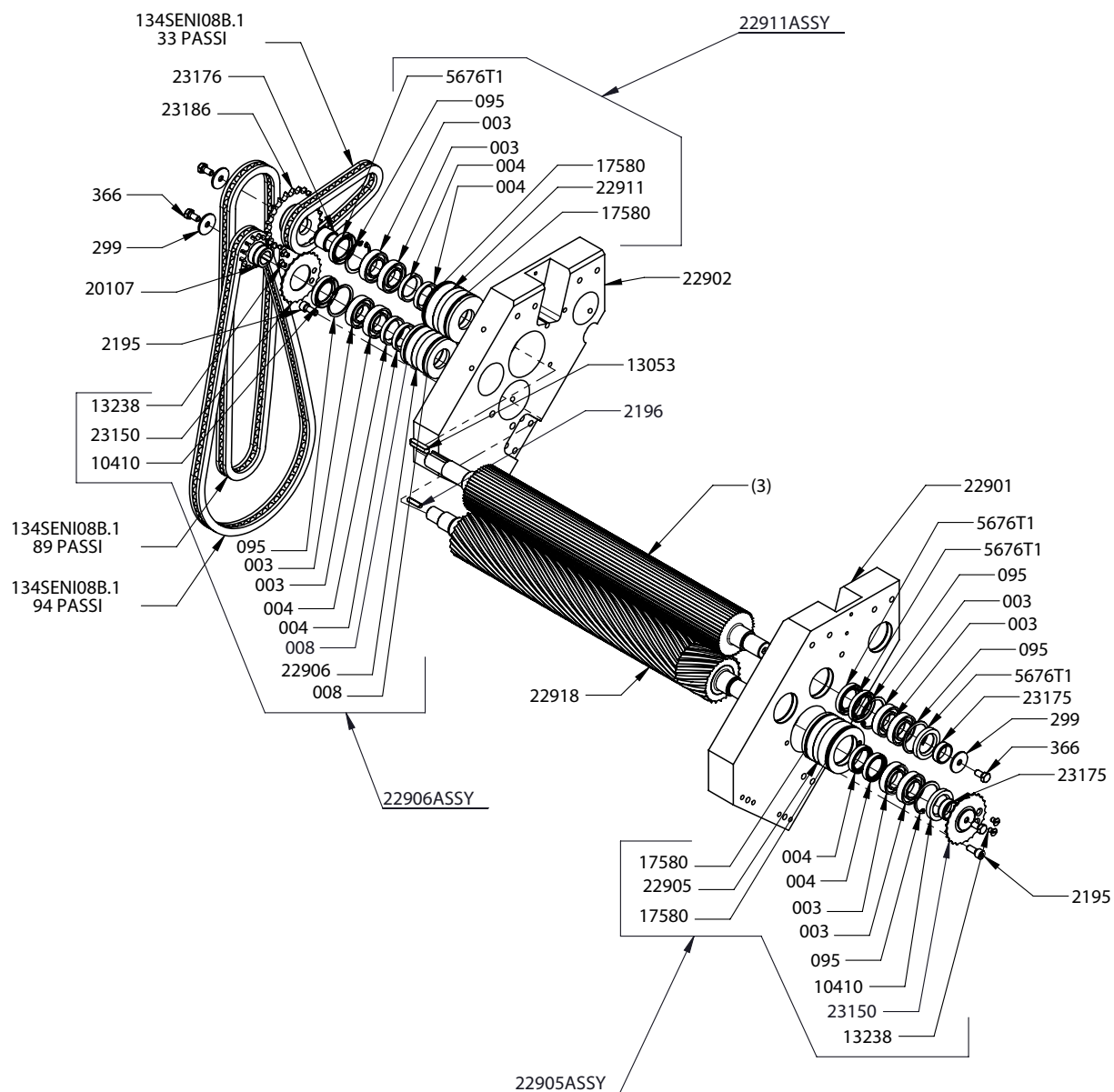
## 9.3. BASE WITH INFERIOR CARTER



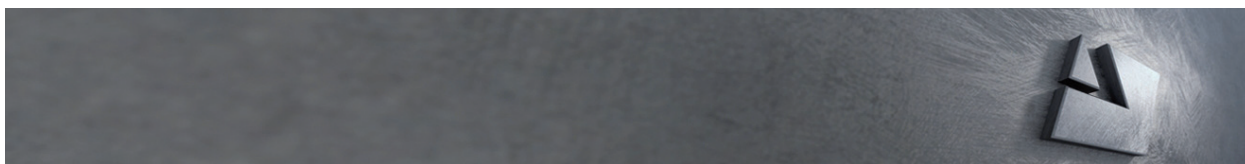


| BASAMENTO\ BASE\ CHASSIS\ BASE |                                                                                                                |
|--------------------------------|----------------------------------------------------------------------------------------------------------------|
| CODE                           | DESCRIPTION                                                                                                    |
| 006                            | Vite\Screw\Vis\Tornillo TE 05x10                                                                               |
| 135                            | Rondella\Washer\Rondelle\Arandela 05x10x1                                                                      |
| 344                            | Dado\Nut\Ecrou\Tuerca M10 UNI 7474                                                                             |
| 366                            | Vite\Screw\Vis\Tornillo TE 08x16                                                                               |
| 390                            | Vite\Screw\Vis\Tornillo TE 10x40                                                                               |
| 490                            | Serratura coperchio\Spring lock\Serrure\Apriete                                                                |
| 491                            | Chiave serratura\Cover lock key\Cle\Llave                                                                      |
| 4125                           | Rondella\Washer\Rondelle\Arandela 05x15x1.5                                                                    |
| 6657                           | Ruota girevole con freno\Castor wheel\Roue pivotante\Rueda giratoria                                           |
| 6675                           | Sensore\Sensor\Capteurs\Sensor                                                                                 |
| 6838                           | Dado\Nut\Ecrou\Tuerca M6 UNI 5721                                                                              |
| 9829                           | Piattino serratura\Plate\Plat pour serrure\Platillo para apriete                                               |
| 10032                          | Vite\Screw\Vis\Tornillo TE 10x35                                                                               |
| 10273                          | Ruota fissa\Wheel\Roue fixe\Rueda fija                                                                         |
| 10279                          | Vite\Screw\Vis\Tornillo TTSQ 05x10                                                                             |
| 10386                          | Vite\Hexagon cap screw\Vis\Tornillo TE 10x70                                                                   |
| 10479                          | Dado\Nut\Ecrou\Tuerca M5 UNI 5721                                                                              |
| 10982                          | Vite\Fulcrum screw\Vis\Tornillo                                                                                |
| 11439                          | Lamiera protez. magnete\Magnet protection plate\Plaque de protection magnétique\Placa de prot. magnéto         |
| 13085                          | Vite\Screw\Vis\Tornillo TTSQ 05x16                                                                             |
| 13249                          | Vite\Screw\Vis\Tornillo TTSQ 10x20                                                                             |
| 13302                          | Vite\Screw\Vis\Tornillo TE 06x12                                                                               |
| 13750                          | Vite\Dowel\Vis\Tornillo STEI 08x60                                                                             |
| 15149                          | Tondo raggiato\Bush\Douille\Casquillo                                                                          |
| 16407                          | Vite\Screw\Vis\Tornillo TE 04x12                                                                               |
| 16796                          | Molla a gas\Gas spring\Ressort\Muelle MG 19/8-195F 300N PRESSMAIR                                              |
| 20260                          | Coperchio laterale superiore\Lateral carter\Couvercle \Tapa lat. lateral der.                                  |
| 20263                          | Protezione superiore completa\Upper protective plate\Tôle de protection supérieur\Placa de protección superior |
| 20267                          | Distanziale sul tondo\Spacer\Entretoise\Distanciador                                                           |
| 20758                          | Coperchio laterale dx\Right carter\Couvercle cote droite\Tapa lat. lateral der.                                |
| 20759                          | Coperchio laterale sx\Left carter\Couvercle cote gauche\Tapa lat. lateral izq.                                 |
| 22234                          | Tondo regolazione altezza\Bush\Douille\Casquillo                                                               |
| 22901                          | Supporto dx per membrana\Right membrane support\Support droite de la membrane\Soporte der. de membrana         |
| 22902                          | Supporto sx per membrana\Left membrane support\Support gauche de la membrane\Soporte izq. de membrana          |
| 26860                          | Supporto sensore\Sensor support\Support sensor\Soporte sensor                                                  |
| 26861                          | Supporto magnete\Magnet support\Support aimant\Soporte magnéto                                                 |
| 26862                          | Supporto sensore sup.\Superior sensor support\Support superior sensor\Soporte sup. de sensor                   |
| 23212ASSY                      | Coperchio anteriore\Front cover\Couvercle antérieur\Tapa delantera                                             |
| 4191A                          | Maniglia in acciaio\Handle\Manche\Mango                                                                        |
| 6552T2                         | Magnete\Stainless steel magnet\Magnéto\Magnéto SCHMERSAL                                                       |

## 9.4. TOOTHROLLER

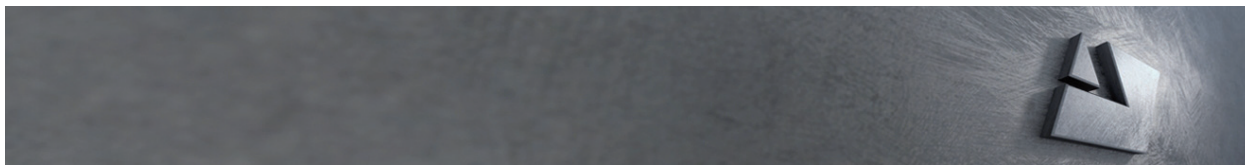




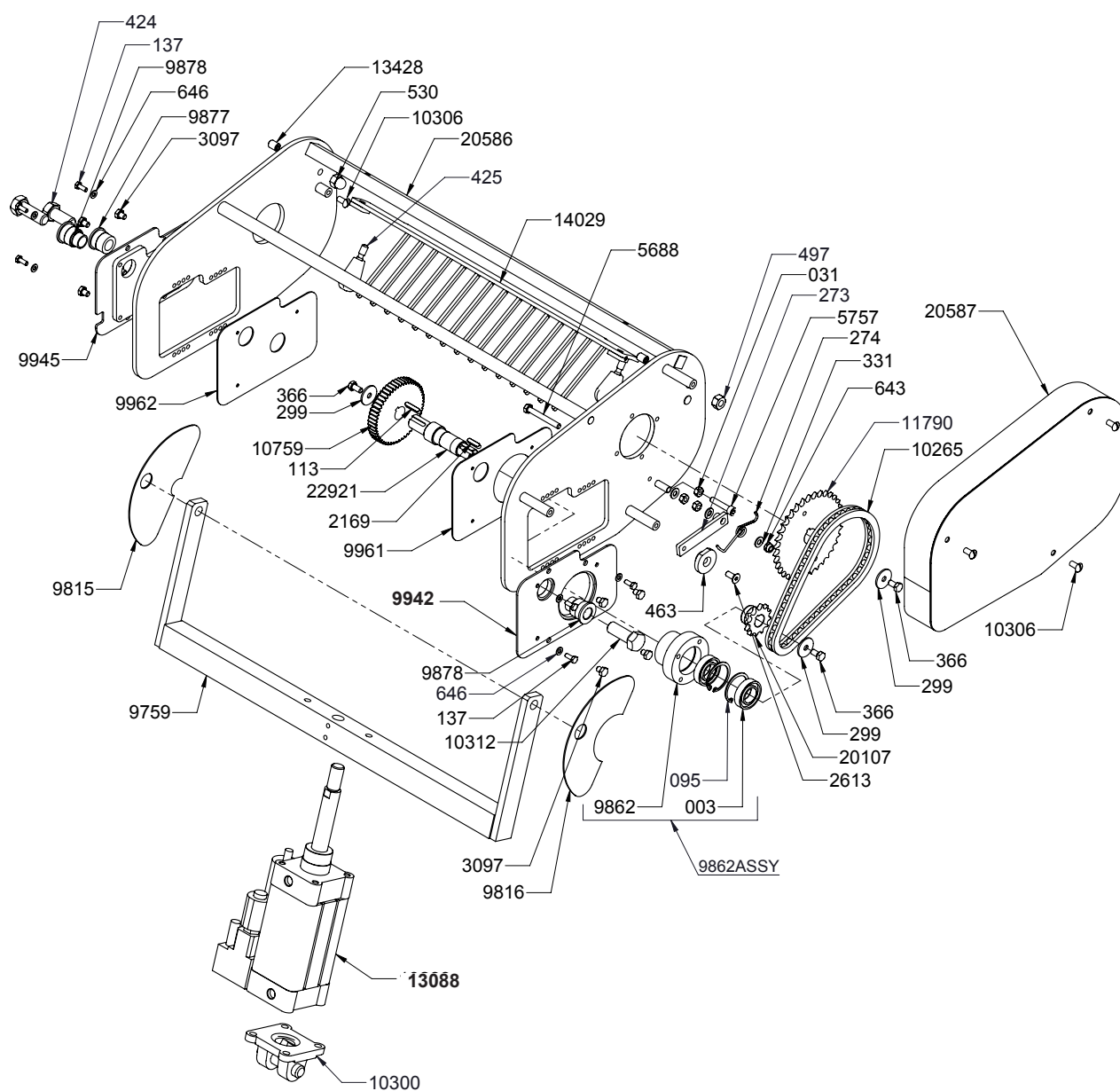


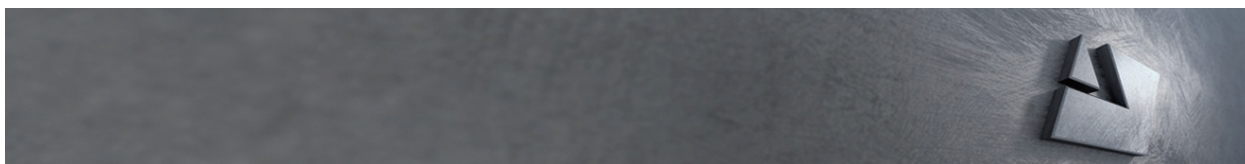
| ALBERO DENTATO\ TOOTHROLLER\ ROULEAU DENTE\ RODILLO DENTATDO |                                                                                                        |
|--------------------------------------------------------------|--------------------------------------------------------------------------------------------------------|
| CODE                                                         | DESCRIPTION                                                                                            |
| 003                                                          | Cuscinetto\Bearing\Roulement\Cojinete                                                                  |
| 004                                                          | Paraolio\Oil seal\Para-huile\Sello de aceite                                                           |
| 008                                                          | Anello\O-ring\Joint o-ring\Junta 3225                                                                  |
| 095                                                          | Seeger\Seeger\Circlip\Seeger                                                                           |
| 299                                                          | Rondella\Plane washer\Rondelle\Arandela 08x32x2,5                                                      |
| 366                                                          | Vite\Screw\Vis\Tornillo 08x16                                                                          |
| 2195                                                         | Vite\Socket head cap screw\Vis\Tornillo TCCE 08x20                                                     |
| 2196                                                         | Vite\Screw\Vis\Tornillo TC 4.2x9.5                                                                     |
| 5676T1                                                       | Paraolio\Oil seal\Para-huile\Sello de aceite                                                           |
| 13053                                                        | Linguetta\Key\Clavette\Lengüeta 08x07x35                                                               |
| 13238                                                        | Vite\Screw\Vis\Tornillo TSTC 06x10                                                                     |
| 17580                                                        | Anello\O-ring\Joint o-ring\Junta 3262                                                                  |
| 20107                                                        | Pignone\Pinion\Pignon\Piñón                                                                            |
| 22901                                                        | Supporto dx per membrana\Right membrane support\Support droite de la membrane\Soporte der. de membrana |
| 22902                                                        | Supporto sx per membrana\Left membrane support\Support gauche de la membrane\Soporte izq. de membrana  |
| 22905                                                        | Bussola\Bush\Coussinet\Casquillo                                                                       |
| 22906                                                        | Bussola\Bush\Coussinet\Casquillo                                                                       |
| 22911                                                        | Bussola\Bush\Coussinet\Casquillo                                                                       |
| 22918                                                        | Albero controrullo membrana\Counter-roller membrane\Contre rouleau membrane\Contrarodillo membrana     |
| 23150                                                        | Lamiera fermo bussola\Plate fixing bush\Tole support coussinet\Plancha soporte casquillo               |
| 23175                                                        | Distanziale\Spacer\Entretoise\Distanciadore 25x30x10.5                                                 |
| 23176                                                        | Distanziale\Spacer\Entretoise\Distanciadore 25x30x19.5                                                 |
| 23186                                                        | Pignone doppio\Twin pinion\Pignon\Piñón                                                                |
| 134SENI08B.1                                                 | Catena\Nichel plated chain\Chaine\Cadena 1/2"                                                          |
| 22905ASSY                                                    | Bussola dx\Right bush\Coussinet droite\Casquillo der.                                                  |
| 22906ASSY                                                    | Bussola sx\Left bush\Coussinet gauche\Casquillo izq.                                                   |
| 22911ASSY                                                    | Bussola sx\Left bush\Coussinet gauche\Casquillo izq.                                                   |

|   |       |                                                                 |
|---|-------|-----------------------------------------------------------------|
| 3 | 23187 | Albero dentato\Toothroller\Rouleau dente\Rodillo dentado P=7    |
|   | 23188 | Albero dentato\Toothroller\Rouleau dente\Rodillo dentado P=3,75 |
|   | 23189 | Albero dentato\Toothroller\Rouleau dente\Rodillo dentado P=2,5  |
|   | 27018 | Albero dentato\Toothroller\Rouleau dente\Rodillo dentado P=2    |
|   | 22917 | Albero dentato\Toothroller\Rouleau dente\Rodillo dentado P=5    |

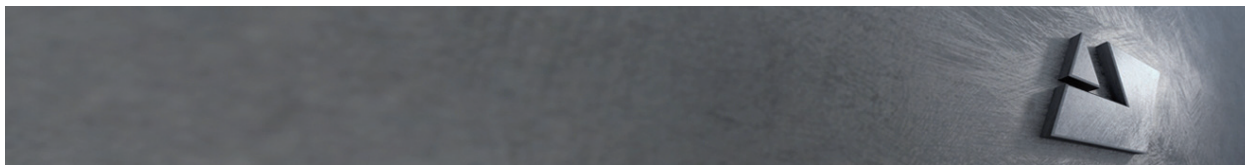


## 9.5. RUBBER ROLLER UNIT

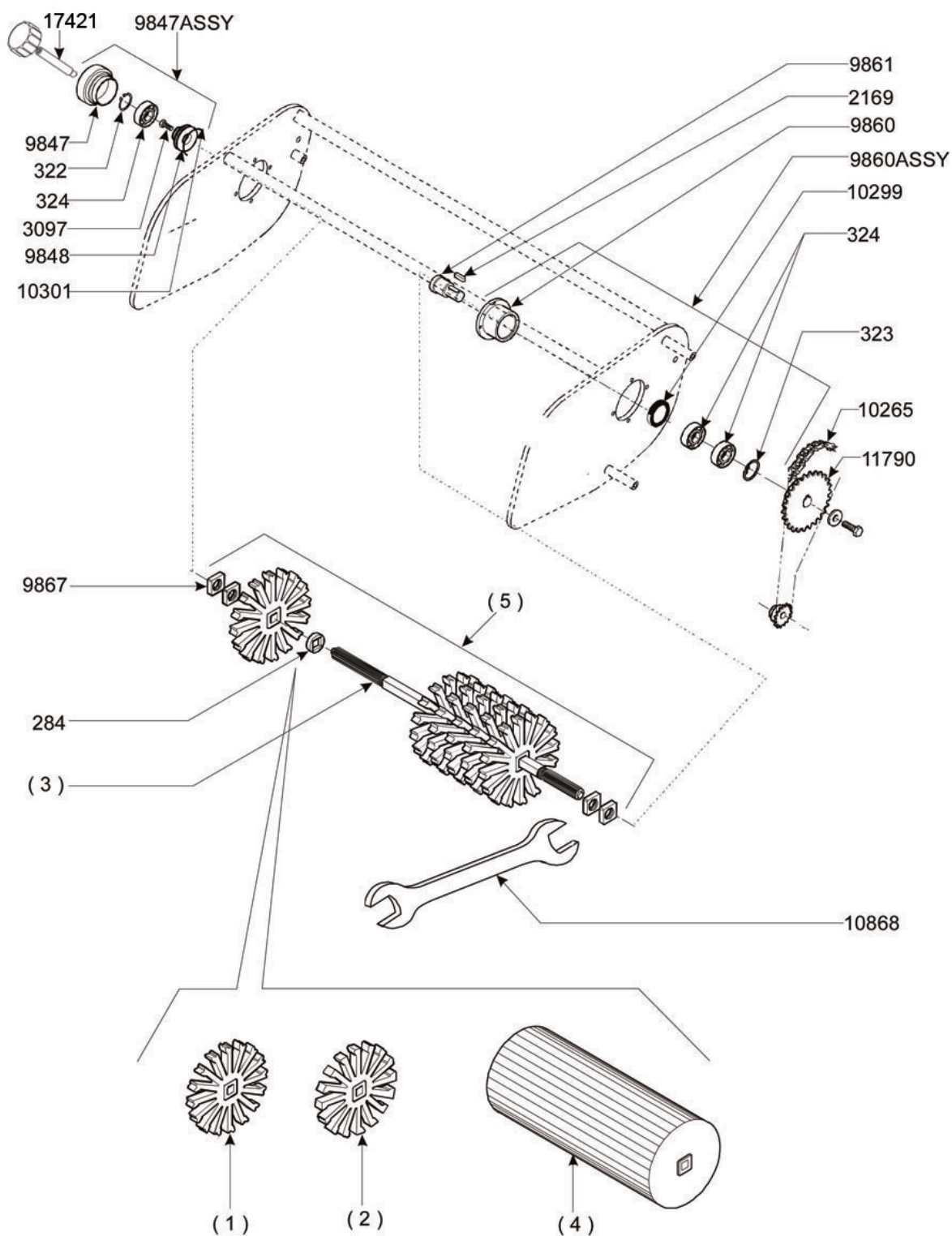


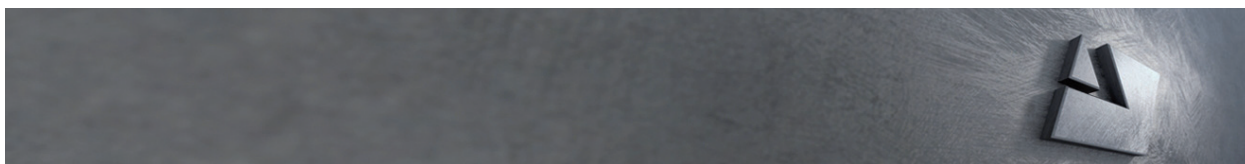


| GRUPPO RULLO GOMMA \RUBBER ROLLER UNIT\ GROUPE ROULEAU EN CAOUTCHOUC\ GRUPO RODILLO GOMA |                                                                                           |
|------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|
| CODE                                                                                     | DESCRIPTION                                                                               |
| 003                                                                                      | Cuscinetto\Bearing\Roulement\Cojinete                                                     |
| 031                                                                                      | Dado\Nut\Ecrou\Tuerca                                                                     |
| 095                                                                                      | Seeger\Seeger\Circlip\Seeger                                                              |
| 113                                                                                      | Linguetta\Key\Clavette\Lengüeta                                                           |
| 137                                                                                      | Vite\Screw\Vis\Tornillo TE 06x16                                                          |
| 273                                                                                      | Tendicatenà\Chain stretcher arm\Plat\ tendeur de chaine\Tensacadena                       |
| 274                                                                                      | Molla Tendicatenà\Chain stretcher spring\Ressort tendeur de chaine\Muelle tensacadena     |
| 299                                                                                      | Rondella\Plane washer\Rondelle\Arandela                                                   |
| 331                                                                                      | Rondella\Plane washer\Rondelle\Arandela                                                   |
| 366                                                                                      | Vite\Screw\Vis\Tornillo 08x16                                                             |
| 424                                                                                      | Vite\Screw\Vis\Tornillo 18x40                                                             |
| 425                                                                                      | Vite bloccaggio\Screw\Vis\Tornillo                                                        |
| 463                                                                                      | Rotella\Nylon wheel\Roue tendeur de chaine\Ruedecilla                                     |
| 497                                                                                      | Dado\Nut\Ecrou\Tuerca M12                                                                 |
| 530                                                                                      | Dado autobloccante\Nut\Ecrou\Tuerca                                                       |
| 643                                                                                      | Dado autobloccante\Nut\Ecrou\Tuerca                                                       |
| 646                                                                                      | Rondella\Plane washer\Rondelle\Arandela                                                   |
| 2169                                                                                     | Linguetta\Key\Clavette\Lengüeta                                                           |
| 2613                                                                                     | Vite\Screw\Vis\Tornillo TSCE 08x20                                                        |
| 3097                                                                                     | Vite\Screw\Vis\Tornello TE 08x10                                                          |
| 5688                                                                                     | Vite\Screw\Vis\Tornillo TE 08x65                                                          |
| 5757                                                                                     | Vite\Screw\Vis\Tornillo TCCE 08x40                                                        |
| 9759                                                                                     | Quadro\Head arm assy\Bras principal\Cuadrado                                              |
| 9815                                                                                     | Lamiera sinistra\Left plate\Tole fer. boutonierre\Plancha izq.                            |
| 9816                                                                                     | Lamiera destra\Right plate\Tole fer. boutonierre\Plancha drch.                            |
| 9862                                                                                     | Mozzo fulcro fiancata\Reverse unit bush\Coussinet point d'appui R.C.\Casquillo            |
| 9862ASSY                                                                                 | Mozzo fulcro completo\Reverse unit bush assy\Groupe coussinet\Casquillo completo          |
| 9877                                                                                     | Distanziale\Spacer\Entretoise\Distanciador                                                |
| 9878                                                                                     | Distanziale\Spacer\Entretoise\Distanciador                                                |
| 9942                                                                                     | Piatto scorrimento dx\Right regulation plate\Plate droite couliss.\ Plato der. desl. lado |
| 9945                                                                                     | Piatto scorrimento sx\Left regulation plate\Plate gauche couliss.\ Plato izq. desl. lado  |
| 9961                                                                                     | Lamiera destra\Right plate\Tole protection dx\Plancha drch.                               |
| 9962                                                                                     | Lamiera sinistra\Left plate\Tole protection sx\Plancha izq.                               |
| 10265                                                                                    | Catena\Rubber roller chian\Chaine\Cadena                                                  |
| 13088                                                                                    | Cilindro\Oil cylinder\Cylindre\Cilindro                                                   |
| 10300                                                                                    | Flangia\Cylinder foot\Bride\Brida                                                         |
| 10306                                                                                    | Vite\Screw\Vis\Tornillo 08x16                                                             |
| 10312                                                                                    | Vite poelier\Screw slotted mushroom\Vis\Tornillo TE 18x50                                 |
| 10759                                                                                    | Ingranaggio\Reverse gear\Engrenage\Engranaje Z=52                                         |
| 11790                                                                                    | Pignone\Pinion\Pignon\Pinon Z=35                                                          |
| 13428                                                                                    | Vite\Screw\Vis\Tornillo STEI 12x16                                                        |
| 14029                                                                                    | Pettine in lamiera\Rubber roller comb\Peine\Peine en plancha                              |
| 20107                                                                                    | Pignone\Pinion\Pignon\Piñón                                                               |
| 20586                                                                                    | Testata rullo gomma\Head roller comb\Tete rouleau\Cabezal completa                        |
| 20587                                                                                    | Carter destro completo\Right carter\Carter droite\Caja de seguridad derecha               |
| 22921                                                                                    | Albero fulcro rullo gomma\Albero per fulcro\Pin\Goujon\Eje rodillo goma                   |



## 9.6. RUBBER ROLLER





| RULLO GOMMA \RUBBER ROLLER\ ROULEAU EN CAOUTCHOUC\ RODILLO GOMA |                                                                 |
|-----------------------------------------------------------------|-----------------------------------------------------------------|
| CODE                                                            | DESCRIPTION                                                     |
| 284                                                             | Distanziale\Spacer\Entretoise\Distanciador\                     |
| 322                                                             | Seeger esterno\Seeger\Circlip\Seeger                            |
| 323                                                             | Seeger interno\Seeger\Circlip\Seeger                            |
| 324                                                             | Cuscinetto\Bearing\Roulement\Cojinete                           |
| 2169                                                            | Linguetta\Key\Clavette\Lengüeta                                 |
| 3097                                                            | Vite\Screw\Vis\Tornillo                                         |
| 9768                                                            | Albero\Head roller shaft\Rouleu\Perno rodillo                   |
| 9847                                                            | Pomolo\Knob\Pommeau\Pomo extracción                             |
| 9847ASSY                                                        | Pomello\Knob assy\Pommeau compl.\Pomo completo                  |
| 9848                                                            | Bussola\Support spacer\Coussinet\Casquillo cierre pomo          |
| 9860                                                            | Mozzo\Bush\Coussinet\Casquillo sostén rodillo goma              |
| 9860ASSY                                                        | Mozzo assemblato\Bush assy\Coussinet complet\Casquillo completo |
| 9861                                                            | Presa di forza\Drive gear\Prise de force\Eje de fuerza          |
| 9867                                                            | Ghiera sx\Ring nut\Frette ferm. R.C.\Virola                     |
| 10265                                                           | Catena\Chain\Chaine\Cadena                                      |
| 10299                                                           | Paraolio\Oil seal\Para-huile\Sello de aceite                    |
| 10301                                                           | Anello\O-ring\Joint oring\Junta torica                          |
| 11790                                                           | Pignone\Pinion\Pignon\Piñón                                     |
| 17421                                                           | Pomello\Rubber roller knob\Pommeau\Pomo                         |

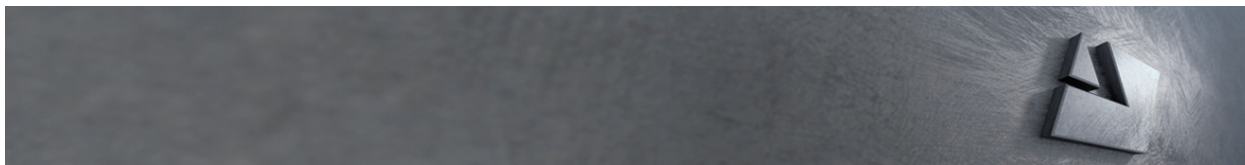
| RULLO CON PIEDE A SCARPETTA \TOOTH FOOT\ ROULEAU AVEC DES DOIGTS EN FORME DE PIED<br>RUEDA CON PIE A ZAPATOS |                                                                       |
|--------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------|
| CODE                                                                                                         | DESCRIPTION                                                           |
| 412A                                                                                                         | Rullo bianco\Tooth foot hard white\Blanc dur\Rodillo blanco con punta |
| 412AS                                                                                                        | Rullo rosa\Tooth foot soft pink\Rose moelleux\Rodillo rosa con punta  |

| RULLO CON PIEDE ARROTONDATO \ROUND TOOTH FOOT\ ROULEAU AVEC DES DOIGTS PLATS<br>RUEDA CON PIE REDONDEADO |                                                                            |
|----------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------|
| CODE                                                                                                     | DESCRIPTION                                                                |
| 412B                                                                                                     | Rullo bianco\Round foot hard white\Blanc dur\Rodillo blanco pie redondeado |
| 412BS                                                                                                    | Rullo rosa\Round foot soft pink\Rose moelleux\Rodillo rosa pie redondeado  |

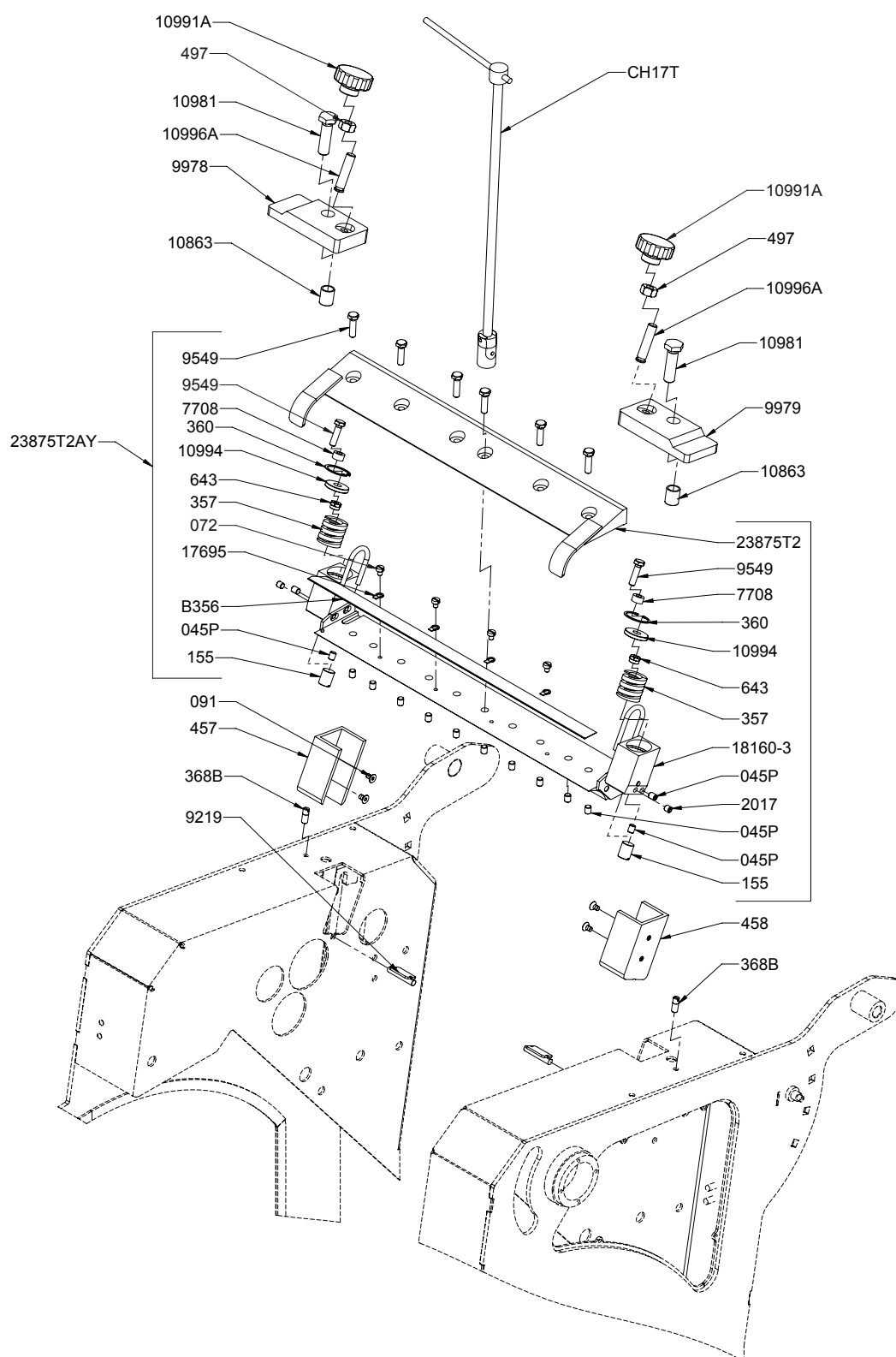
| RULLO A TUBO \TUBE ROLLER\ ROULEAU A TUBE\ TUBO GOMA |                                                                           |
|------------------------------------------------------|---------------------------------------------------------------------------|
| CODE                                                 | DESCRIPTION                                                               |
| 477                                                  | Rullo gomma rosa\Tube roller pink\Rouleau a tube rose\Tubo rosa con perno |

| RULLO COMPLETO \COMPLETE RUBBER ROLLER\ ROULEAU COMPLET\ RODILLO GOMA COMPLETO |                                                                                              |
|--------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|
| CODE                                                                           | DESCRIPTION                                                                                  |
| 9768A                                                                          | Rullo con ruote\Complete rubber roller with roller\Rouleau completavec\Rodillo con 412A      |
| 9768AS                                                                         | Rullo con\Roller with\Rouleau avec\Rodillo con 052/412AS                                     |
| 9768B                                                                          | Rullo con\Roller with\Rouleau avec\Rodillo con 052/412B                                      |
| 9768BS                                                                         | Rullo con\Roller with\Rouleau avec\Rodillo con 052/412BS                                     |
| 9768D                                                                          | Rullo con\Roller with\Rouleau avec\Rodillo con 052/412D                                      |
| 9768DS                                                                         | Rullo con\Roller with\Rouleau avec\Rodillo con 052/412DS                                     |
| 9768ASSY                                                                       | Rullo a tubo rosa con perno\Tube roller with pin\Rouleau a tube avec axe\Tubo goma con perno |
| 9768AM                                                                         | Rullo misto\Complete mixed roller\Rouleau mixte\Tubo goma misto                              |

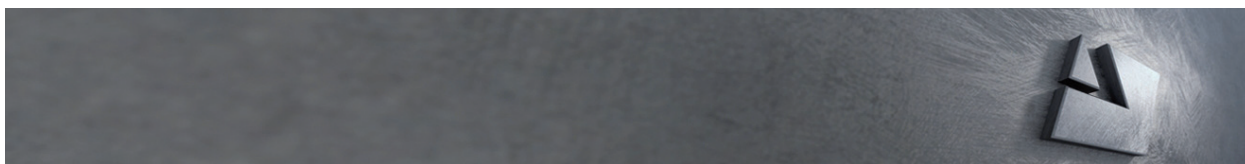




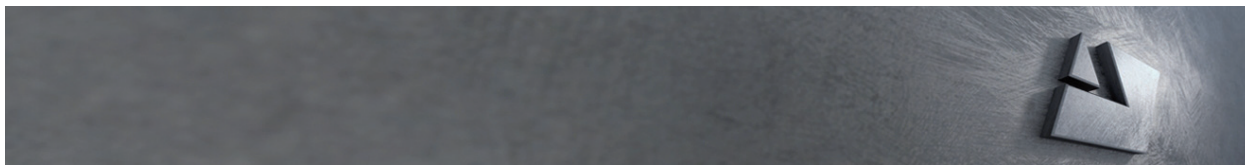
## 9.7. BLADE HOLDER vers. screwed



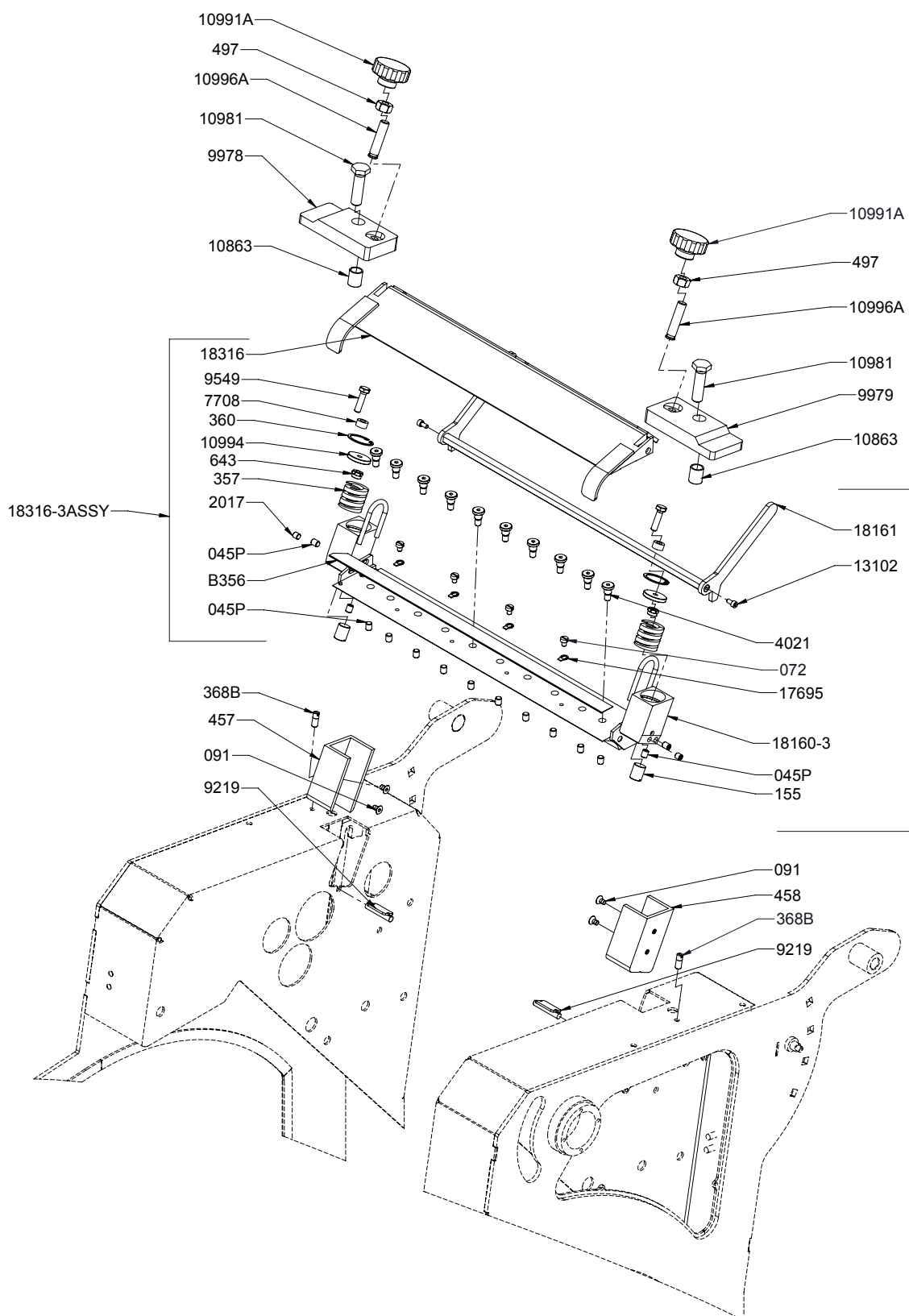


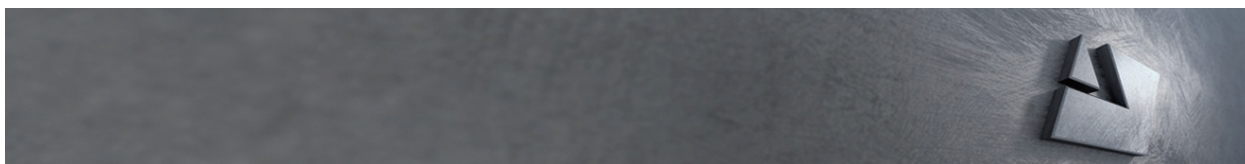


| PORTA LAMA\ BLADE HOLDER\ PORTE-LAME\ PORTACUCHILLA |                                                                                                           |
|-----------------------------------------------------|-----------------------------------------------------------------------------------------------------------|
| CODE                                                | DESCRIPTION                                                                                               |
| 072                                                 | Vite\Screw\Vis sans tete\Tornillo TCTC 06x08 UNI 6107                                                     |
| 091                                                 | Vite\Flat socket head cap screw\Vis\Tornillo TSCE 06x10                                                   |
| 155                                                 | Grano appoggio\Grub screw\Vis sans tete\Prisionero                                                        |
| 357                                                 | Molla\Blade holder spring\Ressort\Muelle                                                                  |
| 360                                                 | Seeger\Seeger\Circlip\Seeger Ø 33                                                                         |
| 457                                                 | Blocco scorrimento sx\left blade holder guide\Guide gauche\Guía izq.                                      |
| 458                                                 | Blocco scorrimento dx\Right blade holder guide\Guide droite\Guía drch.                                    |
| 497                                                 | Dado\Nut\Ecrou\Tuerca M12 UNI 5588                                                                        |
| 643                                                 | Dado\Nut\Ecrou\Tuerca M08 UNI 7474                                                                        |
| 2017                                                | Vite\Socket set screw\Axe\Tornillo STEI 08x08                                                             |
| CH17T                                               | Chiave a T\Blade spanner\Cié\Llave 17mm                                                                   |
| 7708                                                | Distanziale\Spacer\Entretoise\Distanciador                                                                |
| 9219                                                | Piastrina completa\Holder sheet\Plaque appui cube\Plaquita apoyo                                          |
| 9549                                                | Vite portalama\Blade holder screw\Axe porte lame\Tornillo tapa cuchilla                                   |
| 9978                                                | Piastrina sx\Left plate\Plaque gauche\Plaquita izquierda                                                  |
| 9979                                                | Piastrina dx\Right plate\Plaque droite\Plaquita derecha                                                   |
| 10863                                               | Distanziale\Spacer\Entretoise\Distanciador                                                                |
| 10981                                               | Vite\Special screw\Axe\Tornillo M14x50                                                                    |
| 10994                                               | Rondella\Washer\Rondelle\Arandela                                                                         |
| 17695                                               | Lamiera posizionamento lama\Blade positioning sheet                                                       |
| 23875T2                                             | Coperchio completo avvitato sporgente\Blade holder cover 6,5mm                                            |
| 045P                                                | Vite\Dowel\Axe\Tornillo STEI 08x10 UNI 5923                                                               |
| 10991A                                              | Pomello\Knob\Pommeau\Pomo                                                                                 |
| 10996A                                              | Perno filettato per pomello                                                                               |
| 18160-3                                             | Supporto portalama comp.\Support blade holder assy\Supportporte-lame comp.\Soporte portacuchilla comp. 3° |
| 23875T2AY                                           | Portalama completo\Blade holder assy\Porte-lame complet\ Portacuchilla completo 6.5mm                     |
| 368B                                                | Vite piastrina copricubetto\Plate lock pin                                                                |
| B356                                                | Lama\Blade\Lame\Cuchilla 517x22x0.7                                                                       |



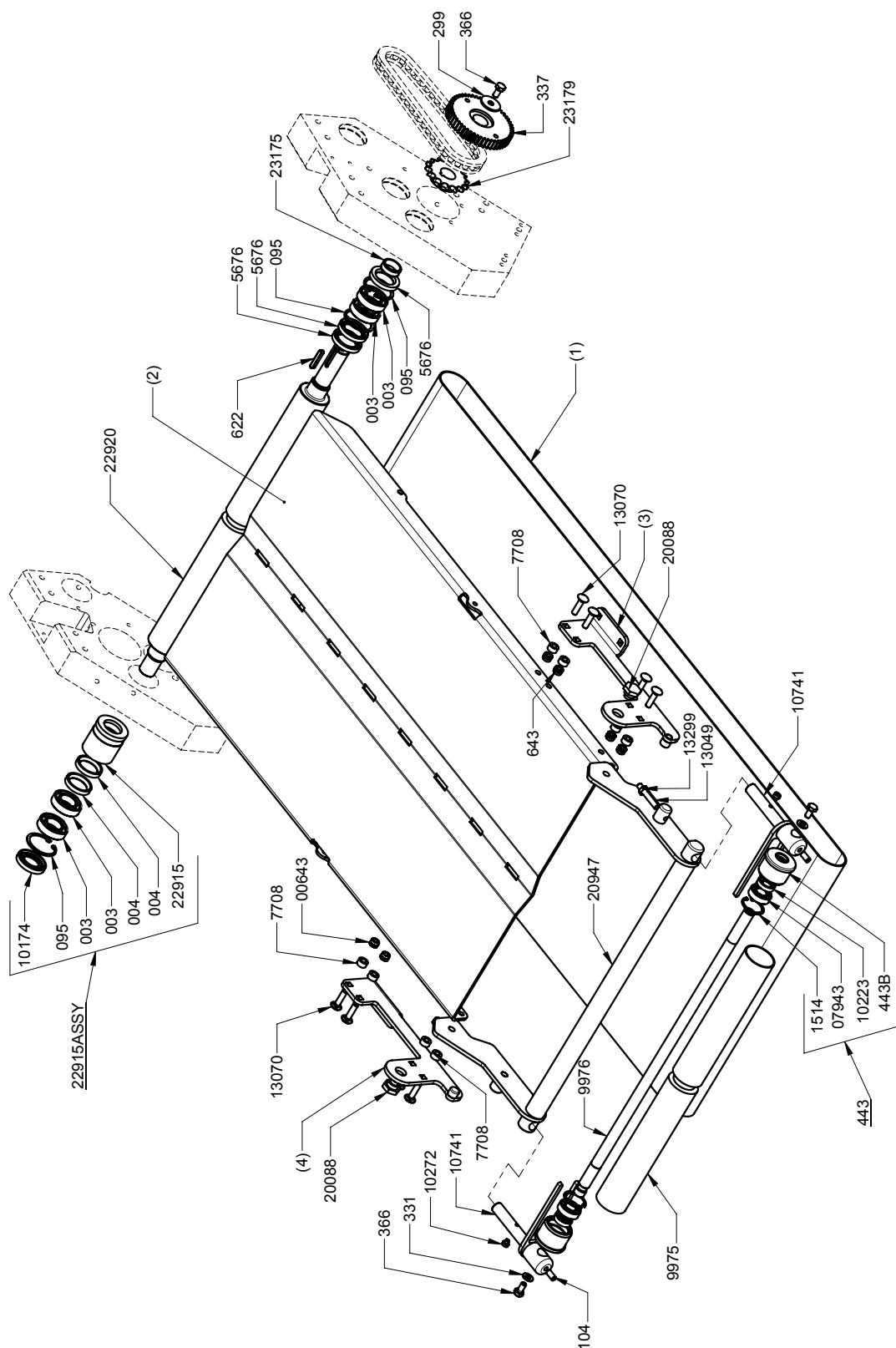
## 9.8. BLADE HOLDER fast version

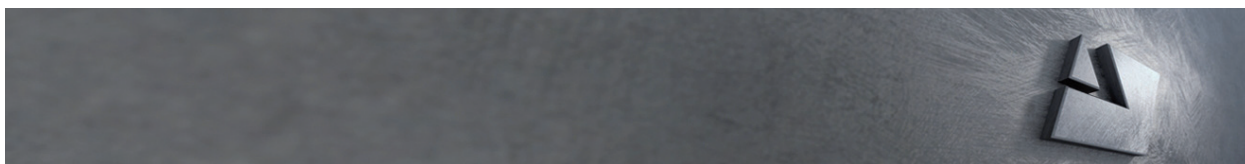




| PORTA LAMA\ BLADE HOLDER\ PORTE-LAME\ PORTACUCHILLA |                                                                                                           |
|-----------------------------------------------------|-----------------------------------------------------------------------------------------------------------|
| CODE                                                | DESCRIPTION                                                                                               |
| 072                                                 | Vite\Screw\Vis sans tete\Tornillo TCTC 06x08 UNI 6107                                                     |
| 091                                                 | Vite\Flat socket head cap screw\Vis\Tornillo TSCE 06x10                                                   |
| 155                                                 | Grano appoggio\Grub screw\Vis sans tete\Prisionero                                                        |
| 357                                                 | Molla\Blade holder spring\Ressort\Muelle                                                                  |
| 360                                                 | Seeger\Seeger\Circlip\Seeger Ø 33                                                                         |
| 457                                                 | Blocco scorrimento sx\left blade holder guide\Guide gauche\Guía izq.                                      |
| 458                                                 | Blocco scorrimento dx\Right blade holder guide\Guide droite\Guía drch.                                    |
| 497                                                 | Dado\Nut\Ecrou\Tuerca M12 UNI 5588                                                                        |
| 643                                                 | Dado\Nut\Ecrou\Tuerca M08 UNI 7474                                                                        |
| 2017                                                | Vite\Socket set screw\Axe\Tornillo STEI 08x08                                                             |
| 4021                                                | Perno per fissaggio coperchio lama\Blade holder plate lock pin\                                           |
| 7708                                                | Distanziale\Spacer\Entretoise\Distanciador                                                                |
| 9219                                                | Piastrina completa\Holder sheet\Plaque appui cube\Plaquita apoyo                                          |
| 9549                                                | Vite portalama\Blade holder screw\Axe porte lame\Tornillo tapa cuchilla                                   |
| 9978                                                | Piastrina sx\Left plate\Plaque gauche\Plaquita izquierda                                                  |
| 9979                                                | Piastrina dx\Right plate\Plaque droite\Plaquita derecha                                                   |
| 10863                                               | Distanziale\Spacer\Entretoise\Distanciador                                                                |
| 10981                                               | Vite\Special screw\Axe\Tornillo M14x50                                                                    |
| 10994                                               | Rondella\Washer\Rondelle\Arandela                                                                         |
| 17695                                               | Lamiera posizionamento lama\Blade positioning sheet                                                       |
| 18316                                               | Coperchio completo rapido\Blade holder cover                                                              |
| 045P                                                | Vite\Dowel\Axe\Tornillo STEI 08x10                                                                        |
| 10991A                                              | Pomello\Knob\Pommeau\Pomo                                                                                 |
| 10996A                                              | Perno filettato per pomello                                                                               |
| 045P                                                | Vite\Dowel\Vis\Tornillo STEI 08x10 UNI 5923                                                               |
| 18160-3                                             | Supporto portalama comp.\Support blade holder assy\Supportporte-lame comp.\Soporte portacuchilla comp. 3° |
| 18316-3ASSY                                         | Portalama completo\Blade holder assy\Porte-lame complet\ Portacuchilla completo 3°                        |
| 368B                                                | Vite piastrina copricubetto\Plate lock pin                                                                |
| B356                                                | Lama\Blade\Lame\Cuchilla 517x22x0.7                                                                       |

## 9.9. CANVAS INFEEED BELT





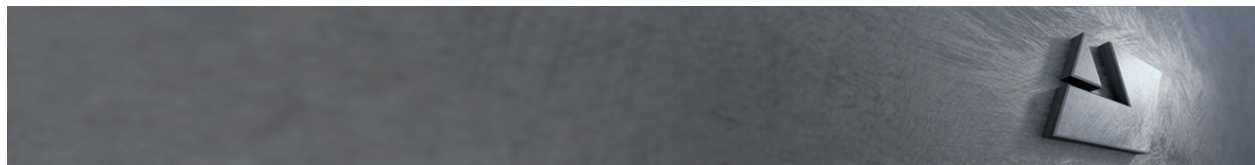
| NASTRO ENTRATA\ INFEED BELT\ TAPIS ROULANT D'ENTREE\ CINTA DE ENTRADA |                                                                                                      |  |
|-----------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|--|
| CODE                                                                  | DESCRIPTION                                                                                          |  |
| 003                                                                   | Cuscinetto\Bearing\Roulement\Cojinete 6005-2RS                                                       |  |
| 004                                                                   | Paraolio\Oil seal\Joint d'et ancheite\Sello aceite                                                   |  |
| 095                                                                   | Seeger\Seeger\Circlip\Seeger                                                                         |  |
| 104                                                                   | Vite\Screw\Vis\Tornillo STEI 08x16                                                                   |  |
| 299                                                                   | Rondella\Washer\Rondelle\Arandela                                                                    |  |
| 331                                                                   | Rondella\Washer\Rondelle\Arandela 08x17x1.5                                                          |  |
| 337                                                                   | Ingranaggio\Rubber roller driving gear\Engrenage\Engranaje z=52                                      |  |
| 366                                                                   | Vite\Screw\Vis\Tornillo TE 08x16                                                                     |  |
| 622                                                                   | Linguetta\Key\Clavette\Lengüeta                                                                      |  |
| 643                                                                   | Dado\Nut\Ecrou\Tuerca M08 UNI 7474                                                                   |  |
| 443                                                                   | Bussola tubo folle\Idle roller bush\Coussinet\Casquillo                                              |  |
| 443B                                                                  | Bussola tubo folle\Idle roller bush\Coussinet\Casquillo                                              |  |
| 1514                                                                  | Seeger\Seeger\Circlip\Seeger                                                                         |  |
| 5676                                                                  | Paraolio\Oil seal\Joint d'et ancheite\Sello aceite                                                   |  |
| 7708                                                                  | Distanziale\Spacer\Entretoise\Distanciador                                                           |  |
| 7943                                                                  | Bussola\Belt drive bush\Coussinet\Casquillo                                                          |  |
| 9775                                                                  | Rullo con guida\Idle tube\Rouleau d'alignement\Rodillo                                               |  |
| 9776                                                                  | Perno tubo folle\Pin\Pivot support tube\Perno soporte                                                |  |
| 10223                                                                 | Paraolio\Oil seal\Joint d'et ancheite\Sello aceite 17287 VITON                                       |  |
| 10174                                                                 | Paraolio\Oil seal\Joint d'et ancheite\Sello aceite 25447 VITON                                       |  |
| 10741                                                                 | Blocchetto per nastro\Conveyor terminal pin\Portée terminale du transporteur\Perno terminal de cinta |  |
| 10272                                                                 | Vite\Screw\Vis\Tornillo TE 06x10                                                                     |  |
| 13049                                                                 | Vite\Screw\Vis\Tornillo STEI 08x50                                                                   |  |
| 13070                                                                 | Vite\Screw\Vis\Tornillo TT SQ 08x30 UNI 5732                                                         |  |
| 13299                                                                 | Dado\Nut\Ecrou\Tuerca M08 UNI 5589                                                                   |  |
| 20088                                                                 | Vite fulcro\Pin's screw\Vis\Tornillo                                                                 |  |
| 20947                                                                 | Terminale completo conveyor complete end frame\Châssis terminal complet\Terminal de cinta completo   |  |
| 22915ASSY                                                             | Bussola nastro completa\Belt drive bush assy\Coussinet compl.\Casquillo completo                     |  |
| 22915                                                                 | Bussola rullo motori nastri\Belt drive bush\Coussinet\Casquillo                                      |  |
| 22920                                                                 | Rullo motore\Infeed belt pin\Axe de tapis d'entree\Ejec inta de entrada                              |  |
| 23175                                                                 | Distanziale\Spacer\Entretoise\Distanciador                                                           |  |
| 23179                                                                 | Corona nastro anteriore\Crown\Couronne\Corona z=16                                                   |  |
| 23545                                                                 | Pignone\Pinion\Pignon\Pifiñón z=13                                                                   |  |

|   |         |                                  |
|---|---------|----------------------------------|
| 1 | 10285T1 | Nastro\Belt\Ruban\Cinta 1800x515 |
|   | 10285T2 | Nastro\Belt\Ruban\Cinta 2260x515 |

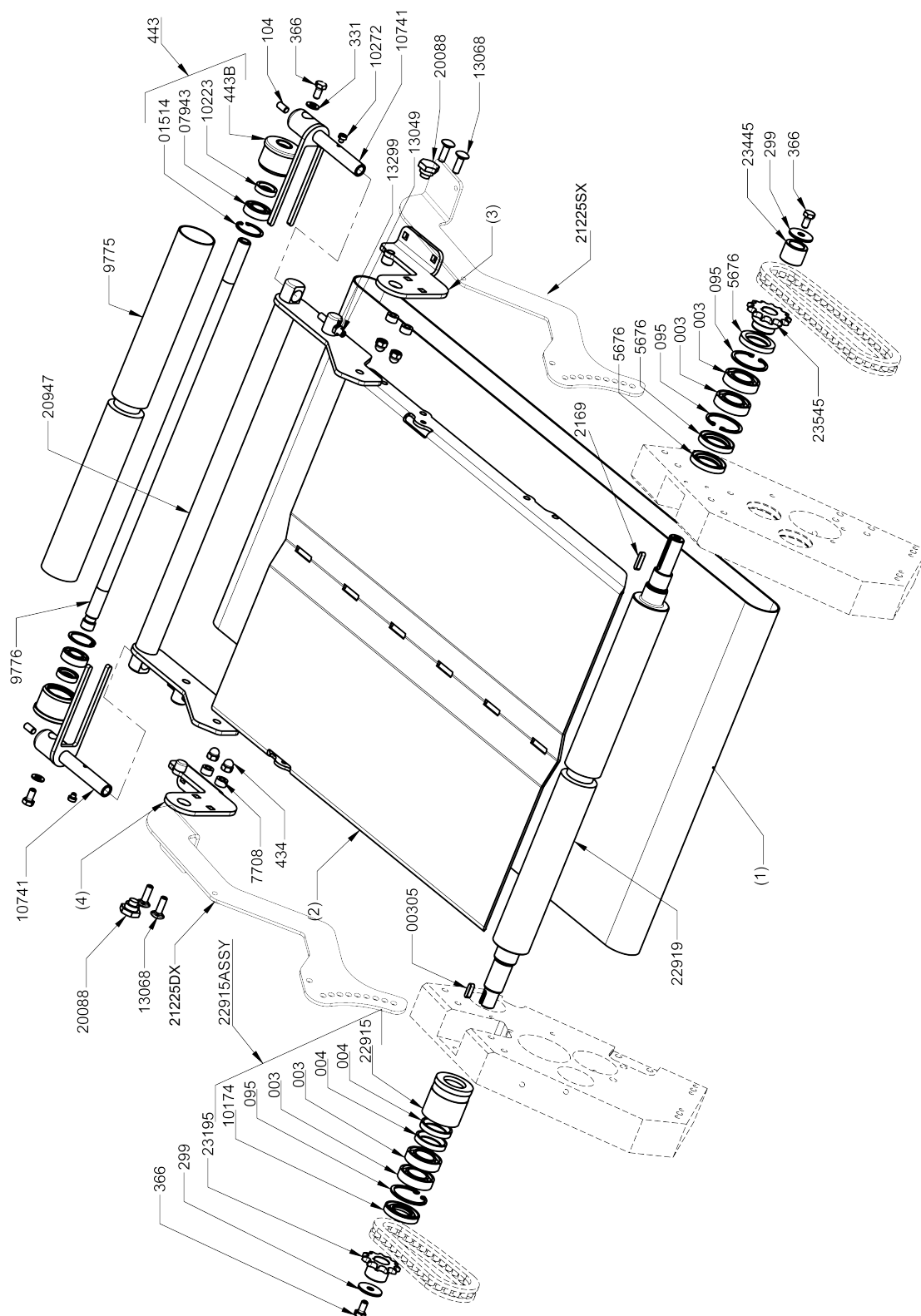
|   |       |                                                                                             |
|---|-------|---------------------------------------------------------------------------------------------|
| 2 | 20950 | Lamiera sostegno nastro\Support belt plate\Plaque de support tapis\Plaque por tapis 1800 mm |
|   | 20951 | Lamiera sostegno nastro\Support belt plate\Plaque de support tapis\Plaque por tapis 1800 mm |

|   |       |                                                                                            |
|---|-------|--------------------------------------------------------------------------------------------|
| 3 | 20949 | Supporto sinistro nastro\Left belt support\Support tapis gauche\Soporte cinta izq. 1800 mm |
|   | 20952 | Supporto sinistro nastro\Left belt support\Support tapis gauche\Soporte cinta izq. 1800 mm |

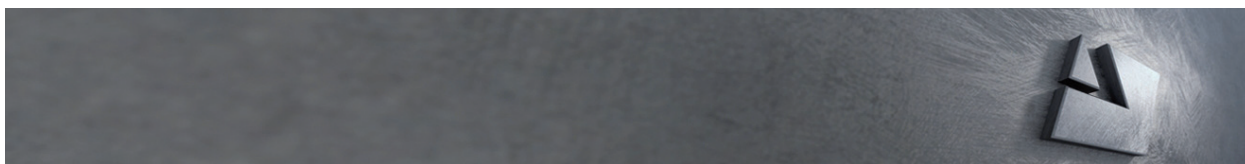
|   |       |                                                                                           |
|---|-------|-------------------------------------------------------------------------------------------|
| 4 | 20948 | Supporto destro nastro\Right belt support\Support tapis droite\Soporte cinta der. 1800 mm |
|   | 20953 | Supporto destro nastro\Right belt support\Support tapis droite\Soporte cinta der. 2260 mm |



## 9.10. CANVAS OUTFEED BELT

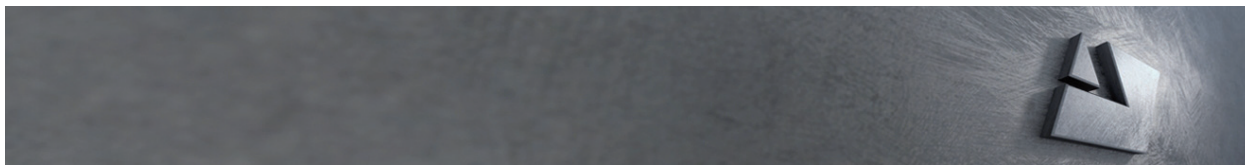




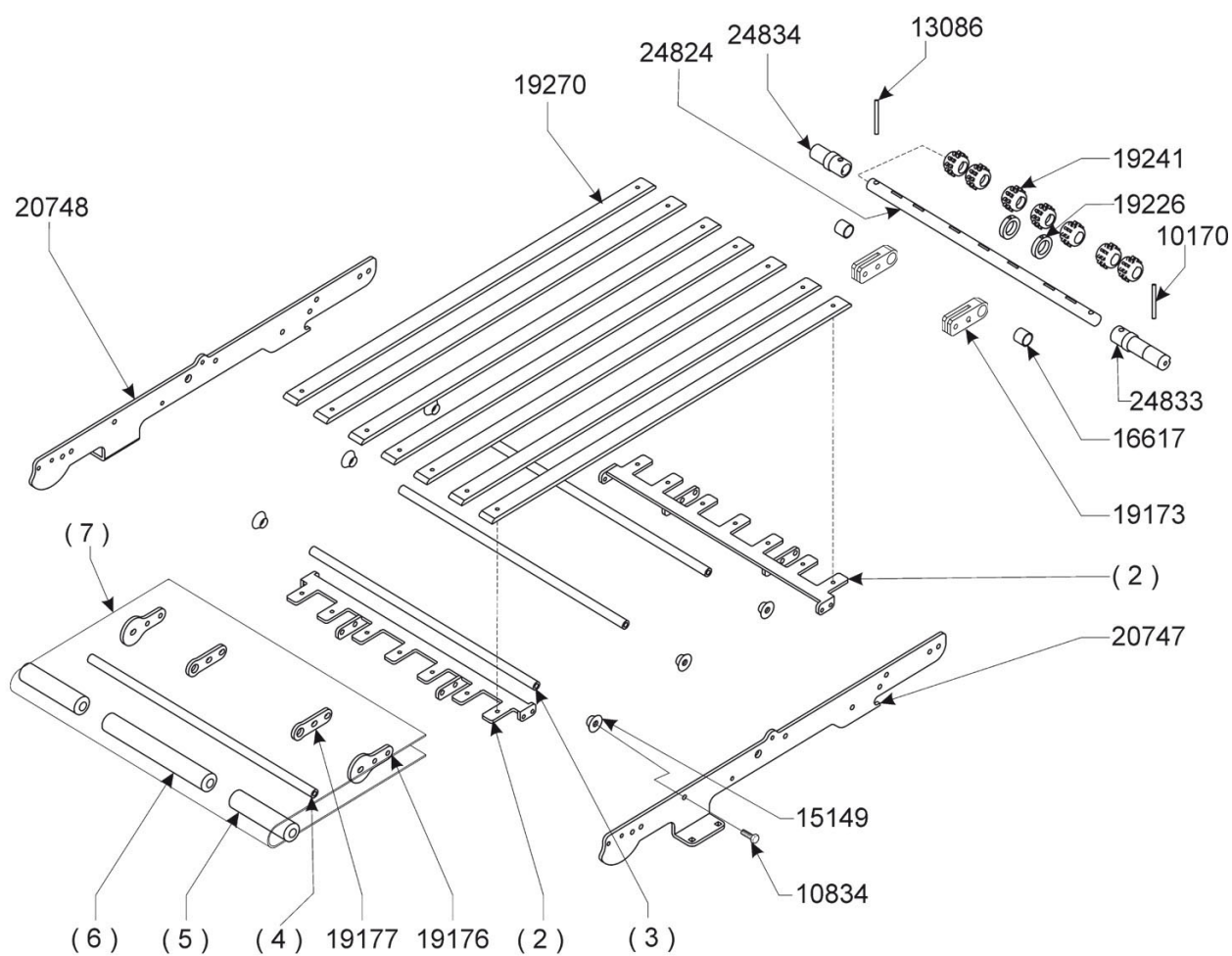


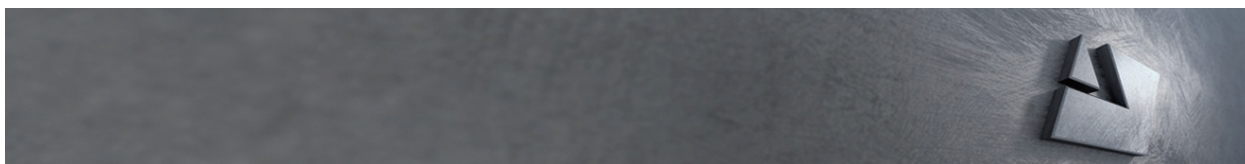
| NASTRO USCITA\ OUTFEED BELT\ TAPIS ROULANT DE SORTIE\ CINTA DE SALIDA |                                                                                  |  |
|-----------------------------------------------------------------------|----------------------------------------------------------------------------------|--|
| CODE                                                                  | DESCRIPTION                                                                      |  |
| 003                                                                   | Cuscinetto\Bearing\Roulement\Cojinete 6005-2RS                                   |  |
| 004                                                                   | Paraolio\Oil seal\Joint d'et ancheite\Sello aceite                               |  |
| 095                                                                   | Seeger\Seeger\Circlip\Seeger                                                     |  |
| 104                                                                   | Vite\Screw\Vis\Tornillo STEI 08x16                                               |  |
| 299                                                                   | Rondella\Washer\Rondelle\Arandela                                                |  |
| 305                                                                   | Linguetta\Key\Clavette\Lengüeta                                                  |  |
| 331                                                                   | Rondella\Washer\Rondelle\Arandela 08x17x1.5                                      |  |
| 366                                                                   | Vite\Screw\Vis\Tornillo TE 08x16                                                 |  |
| 434                                                                   | Dado\Nut\Ecrou\Tuerca M08                                                        |  |
| 443                                                                   | Bussola tubo folle\Idle roller bush\Coussinet\Casquillo                          |  |
| 443B                                                                  | Bussola tubo folle\Idle roller bush\Coussinet\Casquillo                          |  |
| 1514                                                                  | Seeger\Seeger\Circlip\Seeger                                                     |  |
| 2169                                                                  | Linguetta\Key\Clavette\Lengüeta 06x16x25                                         |  |
| 5676                                                                  | Paraolio\Oil seal\Joint d'et ancheite\Sello aceite                               |  |
| 7708                                                                  | Distanziale\Spacer\Entretoise\Distanciador                                       |  |
| 7943                                                                  | Bussola\Belt drive bush\Coussinet\Casquillo                                      |  |
| 9775                                                                  | Rullo con guida\Idle tube\Rouleau d'alignement\Rodillo                           |  |
| 9776                                                                  | Perno tubo folle\Pin\Pivot support tube\Perno soporte                            |  |
| 10223                                                                 | Paraolio\Oil seal\Joint d'et ancheite\Sello aceite 17287 VITON                   |  |
| 10174                                                                 | Paraolio\Oil seal\Joint d'et ancheite\Sello aceite 25447 VITON                   |  |
| 10741                                                                 | Blocchetto per nastrino\Belt terminal pin                                        |  |
| 10272                                                                 | Vite\Screw\Vis\Tornillo TE 06x10                                                 |  |
| 13049                                                                 | Vite\Screw\Vis\Tornillo STEI 08x50                                               |  |
| 13068                                                                 | Vite\Screw\Vis\Tornillo TT SQ 08x25 UNI 5732                                     |  |
| 13299                                                                 | Dado\Nut\Ecrou\Tuerca M08 UNI 5589                                               |  |
| 16038                                                                 | Spintore monoblocco\Pusher\Poussoir\Empujador                                    |  |
| 20088                                                                 | Vite fulcro\Pin's screw\Vis\Tornillo                                             |  |
| 20947                                                                 | Terminale completo                                                               |  |
| 22915ASSY                                                             | Bussola nastro completa\Belt drive bush assy\Coussinet compl.\Casquillo completo |  |
| 22915                                                                 | Bussola rullo motori nastri\Belt drive bush\Coussinet\Casquillo                  |  |
| 23195                                                                 | Pignone\Pinion\Pignon\Piñón                                                      |  |
| 23445                                                                 | Distanziale\Spacer\Entretoise\Distanciador                                       |  |
| 23545                                                                 | Pignone\Pinion\Pignon\Piñón z=13                                                 |  |
| 21225DX                                                               | Fianco dx per supporto nastro\Outfeed belt right side                            |  |
| 21225SX                                                               | Fianco sx per supporto nastro\Outfeed belt left side                             |  |

|   |         |                                                                                            |
|---|---------|--------------------------------------------------------------------------------------------|
| 1 | 10285T1 | Nastro\Belt\Ruban\Cinta 1800x515                                                           |
|   | 10285T2 | Nastro\Belt\Ruban\Cinta 2260x515                                                           |
| 2 | 20950   | Lamiera sostegno nastro\Support belt plate\Plaque de support tapis\Placa por tapis 1800 mm |
|   | 20951   | Lamiera sostegno nastro\Support belt plate\Plaque de support tapis\Placa por tapis 1800 mm |
| 3 | 20949   | Supporto sinistro nastro\Left belt support\Support tapis gauche\Soporte cinta izq. 1800 mm |
|   | 20952   | Supporto sinistro nastro\Left belt support\Support tapis gauche\Soporte cinta izq. 1800 mm |
| 4 | 20948   | Supporto destro nastro\Right belt support\Support tapis droite\Soporte cinta der. 1800 mm  |
|   | 20953   | Supporto destro nastro\Right belt support\Support tapis droite\Soporte cinta der. 2260 mm  |



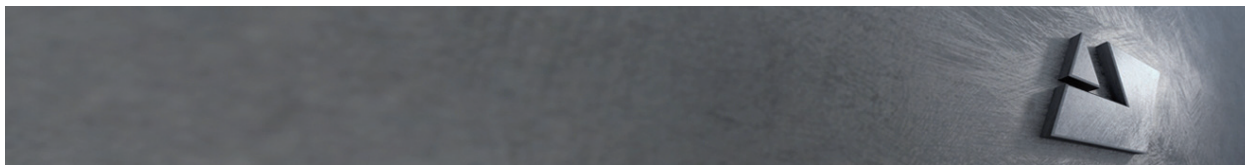
## 9.11. INFEEED MODULAR BELT



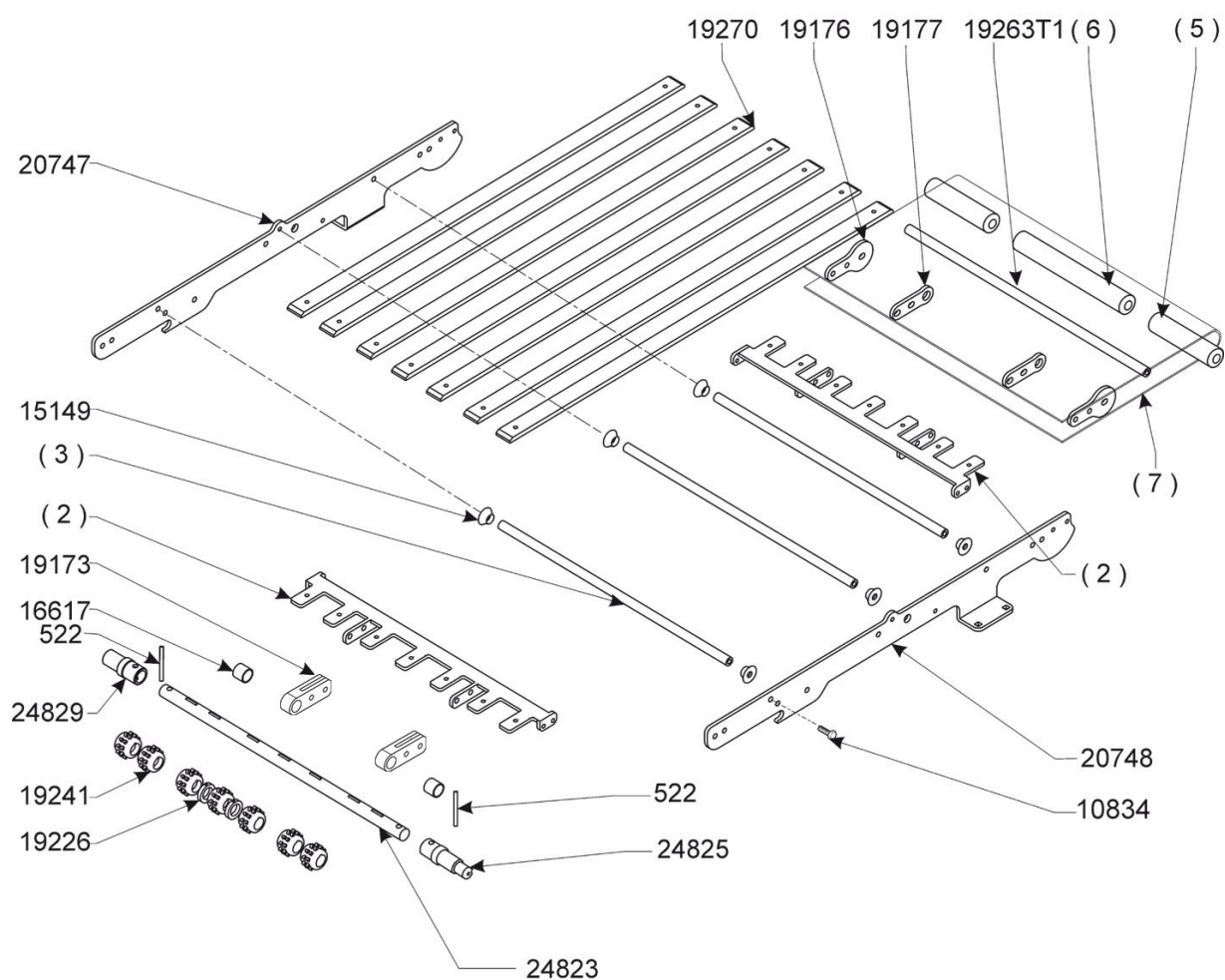


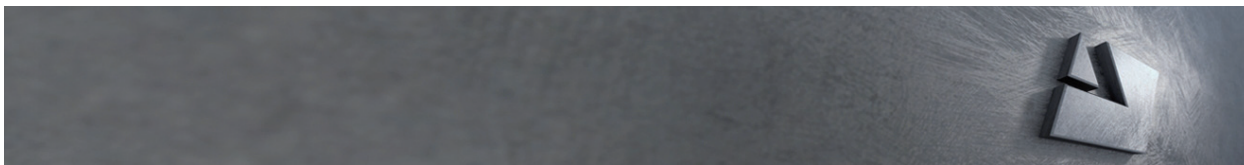
| INFEED MODULAR BELT - 1800 |                        |
|----------------------------|------------------------|
| CODE                       | DESCRIPTION            |
| 522                        | Parallel pin           |
| 10834                      | Screw                  |
| 15149                      | Bush                   |
| 16617                      | Plastic bush           |
| 19173                      | Support plate          |
| 19176                      | External support plate |
| 19177                      | Internal support plate |
| 19226                      | Spacer                 |
| 19241                      | Plastic pinion         |
| 19270                      | Nylon guide            |
| 20747                      | Right plate            |
| 20748                      | Left plate             |
| 24823                      | Shaft                  |
| 24825                      | Right belt drive pin   |
| 24829                      | Left belt drive pin    |

|   |                |                         |
|---|----------------|-------------------------|
| 2 | 20562          | Support belt            |
| 3 | 20561          | Bush                    |
| 4 | 19263T1        | Idle roller shaft       |
| 5 | 19264          | Plastic roller L=132    |
| 6 | 19179          | Plastic roller L=234    |
| 7 | 147M1233BAC500 | Blue modular belt L=500 |



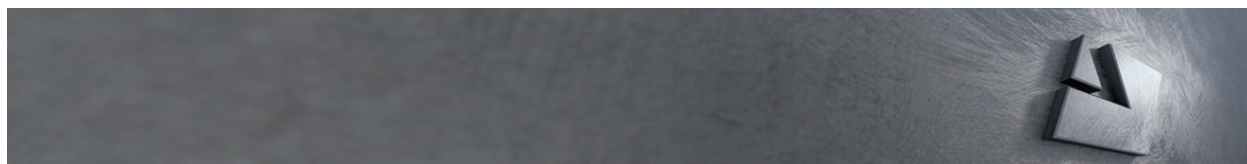
## 9.12. OUTFEED MODULAR BELT



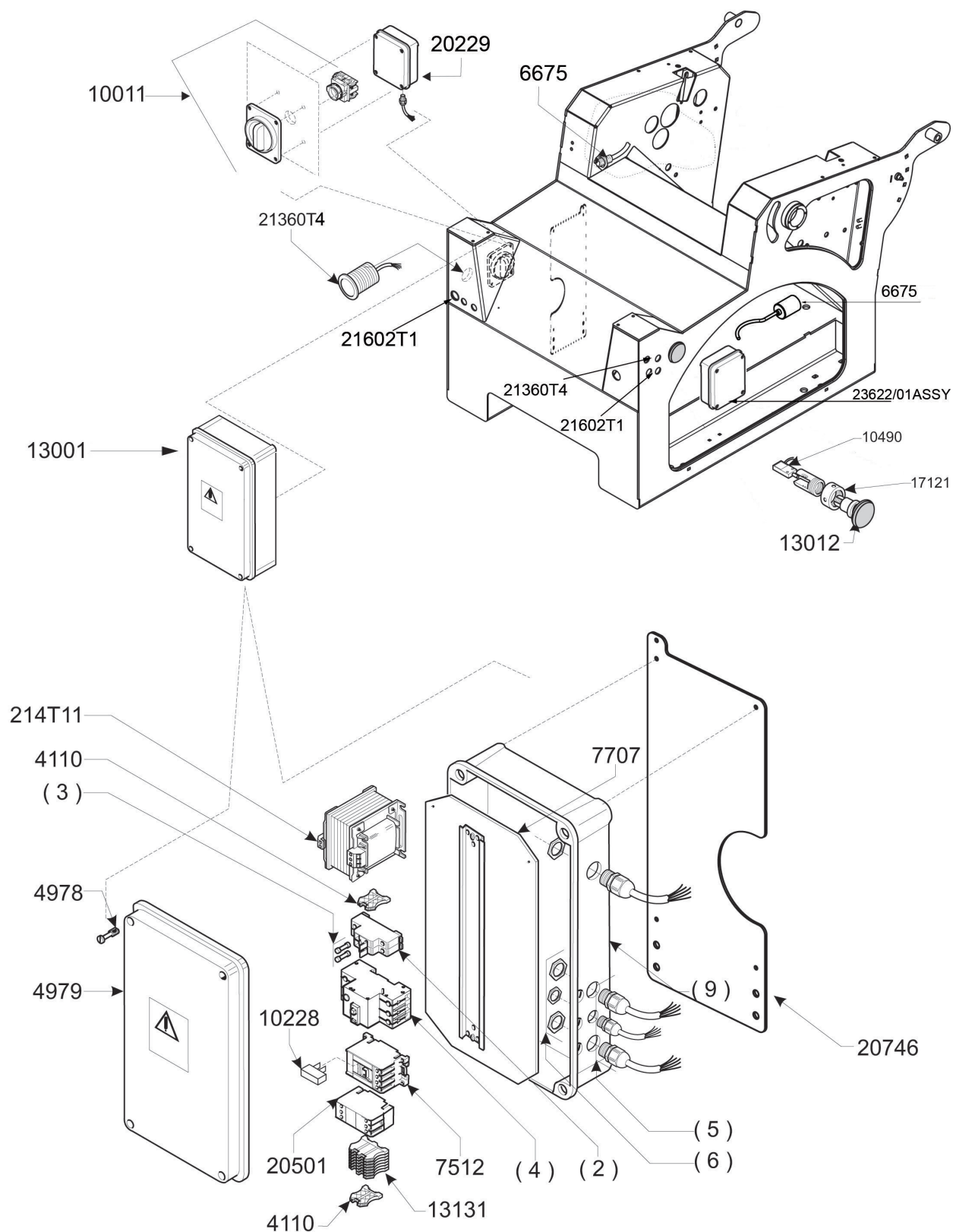


| OUTFEED MODULAR BELT - 1800 |                        |
|-----------------------------|------------------------|
| CODE                        | DESCRIPTION            |
| 13086                       | Parallel pin           |
| 10834                       | Screw                  |
| 10170                       | Dowel                  |
| 15149                       | Bush                   |
| 16617                       | Plastic bush           |
| 19173                       | Support plate          |
| 19176                       | External support plate |
| 19177                       | Internal support plate |
| 19179                       | Plastic roller L=234   |
| 19226                       | Spacer                 |
| 19241                       | Plastic pinion         |
| 20563                       | Support plate          |
| 20747                       | Right plate            |
| 20748                       | Left plate             |
| 24824                       | Shaft                  |
| 24833                       | Belt drive pin         |
| 24834                       | Pin                    |

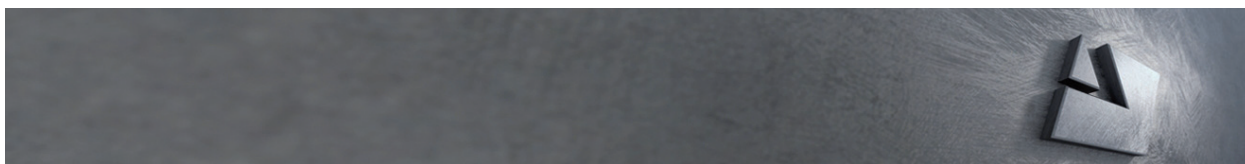
|   |                |                         |
|---|----------------|-------------------------|
| 2 | 20562          | Support belt            |
| 3 | 20561          | Bush                    |
| 4 | 19263T1        | Idle roller shaft       |
| 5 | 19264          | Plastic roller L=132    |
| 6 | 19270          | Nylon guide             |
| 7 | 147M1233BAC500 | Blue modular belt L=500 |



## 9.13. ELECTRIC SYSTEM

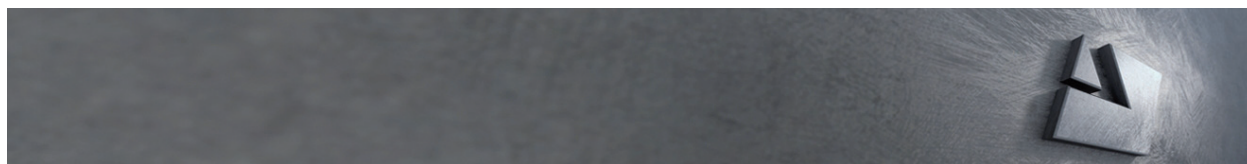




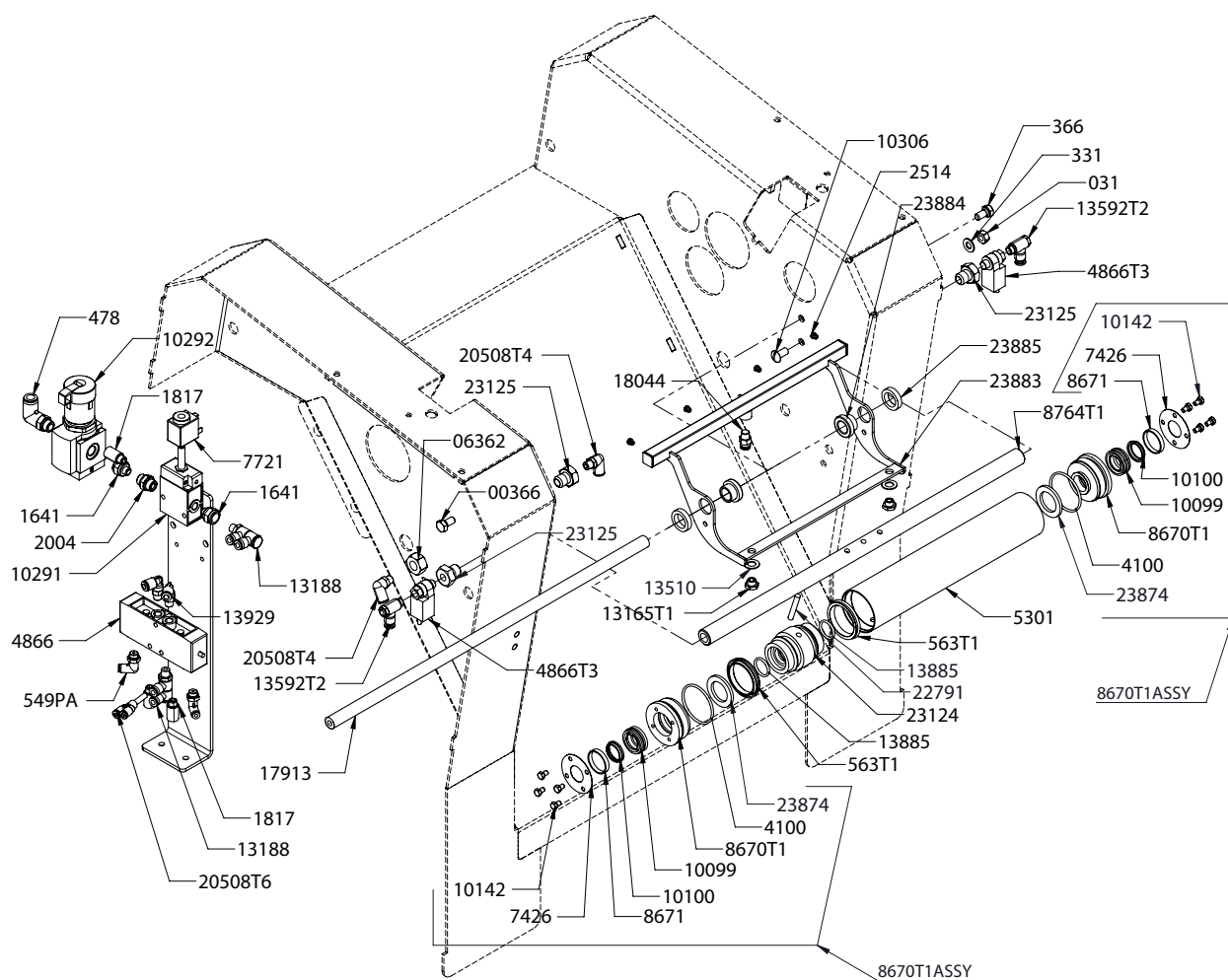


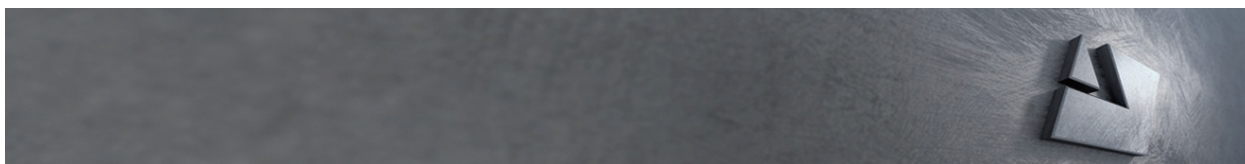
| IMPIANTO ELETTRICO\ ELECTRIC SYSTEM\ CIRCUIT ELECTRIQUE\ INSTALACION ELECTRICA |                                                                                                |
|--------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|
| CODE                                                                           | DESCRIPTION                                                                                    |
| 214T11                                                                         | Trasformatore\Transformer\Trasnformateur\Trasformador                                          |
| 4110                                                                           | Morsetto\Terminal block\Bloc\Borne terminal                                                    |
| 4978                                                                           | Vite cassetta\Screw\Vis de plastique\Tornillo tapa                                             |
| 4979                                                                           | Coperchio\Box cover\Couvercle de boite\Tapa                                                    |
| 7512                                                                           | Teleruttore\Contactor\Telerupteur\Teleruptor                                                   |
| 7707                                                                           | Piastra\Electrical box plate\Plat\Plaque                                                       |
| 10011                                                                          | Selettore breter\Selector breter\Selecteur breter\Interruptor general                          |
| 20229                                                                          | Scatola\Box\Boitier\Caja                                                                       |
| 10228                                                                          | Antidisturbo\Antijamming\Filter de telerupteur\Filtre elettrico                                |
| 10490                                                                          | Finecorsa completo\Limit switch\Fin de course pizzato\Tope de decorrido                        |
| 13001                                                                          | Spia luminosa verde\Green lamp\Lampe vert\Luz de puesta en marcia                              |
| 13012                                                                          | Pulsante emergenza\Emergency button\Bouton rouge\Pulsante de emergencia                        |
| 13131                                                                          | Morsetto\Port\Borne\Borne                                                                      |
| 17121                                                                          | Ghiera pulsanti\Ring nut\Bague boutons\ botones de marcación                                   |
| 6675                                                                           | Sensore\Sensor\Sensour\Sensor Schmersal                                                        |
| 20501                                                                          | Centralina\Trigger box\Centrale\Centralina Schmersal                                           |
| 20746                                                                          | Lamiera sostegno scatola\Micro switch support\Plaque sur le chassis\Plaque soporto caja elect. |
| 21602T1                                                                        | Spia luminosa rossa-verde\Red-green lamp\Lampe vert-rouge\Luz de puesta en marcia roja-verde   |
| 21360T4                                                                        | Pulsante\Star button\Bouton piezo start\Pulsante de puesta en marcia                           |
| 23622/01ASSY                                                                   | Impianto elettrico\Electric system\Circuit electrique\Instalacion electrica                    |

|   |       |                                                                                     |
|---|-------|-------------------------------------------------------------------------------------|
| 2 | 6279  | Portafusibile bipolare\Two-pole fuse-holder\Porte-fusible\Portafusibile bipolar     |
|   | 6280  | Portafusibile tripolare\Three-pole fuse-holder\Porte-fusible\Portafusibile tripolar |
| 3 | 6281  | Fusibile\Fuse\Fusible\Fusible 10x38 2A                                              |
|   | 6282  | Fusibile\Fuse\Fusible\Fusible 10x38 4A                                              |
|   | 6283  | Fusibile\Fuse\Fusible\Fusible 10x38 10A                                             |
| 4 | 5237  | Salvatore\Motor protector\Thermique\Salvatore Siemens 1 - 1.6A                      |
|   | 5238  | Salvatore\Motor protector\ Thermique\Salvatore Siemens 1.8 - 2.5A                   |
|   | 5239  | Salvatore\Motor protector\ Thermique\Salvatore Siemens 2.8 - 4A                     |
|   | 5240  | Salvatore\Motor protector\ Thermique\Salvatore Siemens 4 - 6A                       |
|   | 10492 | Salvatore\Motor protector\ Thermique\Salvatore Siemens 0.7 - 1A                     |
|   | 13549 | Salvatore\Motor protector\ Thermique\Salvatore Siemens 0.5 - 0.8A                   |
| 5 | 4116  | Pressacavo\Cable gland\Passe-cable\Pressacavo Skintop PG9                           |
|   | 4117  | Pressacavo\Cable gland\Passe-cable\Pressacavo Skintop PG11                          |
|   | 4188  | Pressacavo\Cable gland\Passe-cable\Pressacavo Skintop PG7                           |
|   | 5130  | Pressacavo\Cable gland\Passe-cable\Pressacavo Skintop PG16                          |
|   | 5370  | Pressacavo\Cable gland\Passe-cable\Pressacavo Skintop PG13.5                        |
| 6 | 4683  | Ghiera ottone\ Ring nut\Ecrou\Tuerca anular PG9                                     |
|   | 4684  | Ghiera ottone\ Ring nut\Ecrou\Tuerca anular PG11                                    |
|   | 5131  | Ghiera ottone\ Ring nut\Ecrou\Tuerca anular PG7                                     |
|   | 5681  | Ghiera ottone\ Ring nut\Ecrou\Tuerca anular PG16                                    |
|   | 5359  | Ghiera ottone\ Ring nut\Ecrou\Tuerca anular PG13                                    |
| 9 | 4977  | Cassetta impianto elettrico\Electrical box\Boitier\Caja electrica WIMEX             |

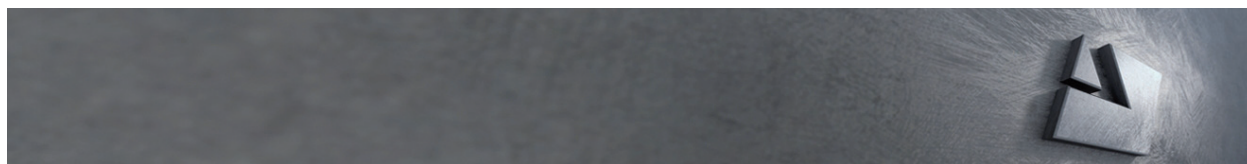


## 9.14. CLEANING SYSTEM until May 2011

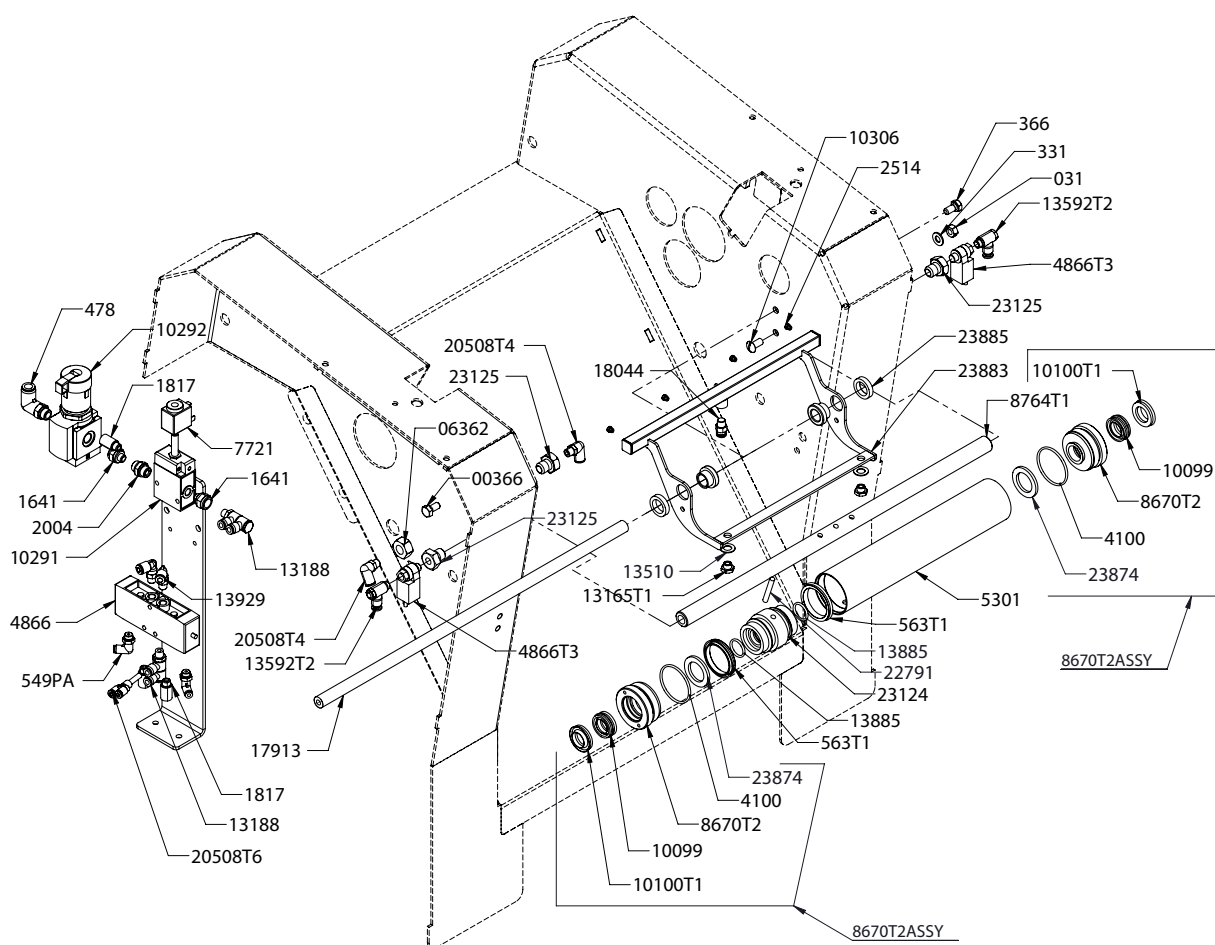


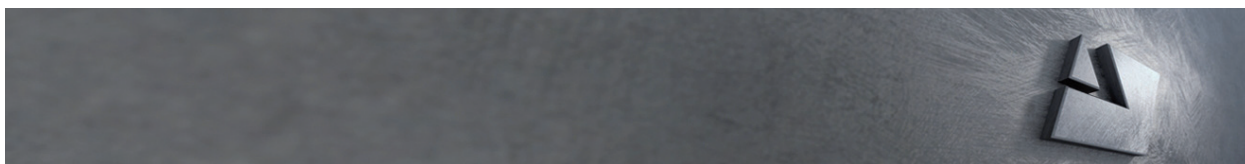


| IMPIANTO DI PULIZIA\CLEANING SYSTEM\DISPOSITIF DE NETTOYAGE\SISTEMA DE LIMPIEZA |                                                                                                         |
|---------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------|
| CODE                                                                            | DESCRIPTION                                                                                             |
| 031                                                                             | Dado\Nut\Ecrou\Tuerca                                                                                   |
| 331                                                                             | Rondella\Washer\Rondelle\Arandela 08x17x1.5                                                             |
| 366                                                                             | Vite\Screw\Vis\Tornillo TE 08x16                                                                        |
| 478                                                                             | Raccordo a L\Elbow union\Connecteur\Empalme decodo                                                      |
| 563                                                                             | Guarinzione dem\Gasket\Joint cylindre\Junta 50                                                          |
| 1641                                                                            | Riduzione\Reducer\Réduction\Reducción 1/4"F-1/8"M                                                       |
| 1817                                                                            | Silenziatore in bronzo\Bronze silencer\Silencieux de bronze\Silenciador 1/8"                            |
| 2004                                                                            | Nipples\Nipples\Raccord filete\Unión 1/4" conico                                                        |
| 2514                                                                            | Getto aria\Nozzle\Jet air\Chorro aire                                                                   |
| 4100                                                                            | Anello\O-ring\Joint o-ring\Junta 3181                                                                   |
| 4866                                                                            | Valvola\Valve\Soupage\Válvula "FESTO"                                                                   |
| 5301                                                                            | Canna per cilindro aria\Cylinder tube\Tube de cylindre\Tubo para cilindro aire                          |
| 6362                                                                            | Dado\Nut\Ecrou\Tuerca                                                                                   |
| 7426                                                                            | Raschiatore per cilindro pulizia\Scraping plate\Plaque à racleur\Placa de limpeza                       |
| 7721                                                                            | Bobina\Coil\Bobine 24\Bobina FESTO MSFW-24AC-OD                                                         |
| 8671                                                                            | Anello sede guarnizione\Still ring head cylinder\Anneau aciernecimeuse cylindre\Anillo acero NR20CNBR   |
| 10099                                                                           | Guarnizione verde testata cilindro\Gasket\Joint\Junta                                                   |
| 10100                                                                           | Raschiatore\Scraper\Racleur\Rascador NR20C                                                              |
| 10142                                                                           | Vite\Screw\Vis\Tornillo TE 05x08                                                                        |
| 10291                                                                           | Elettrovalvola\Valve\Soupage\Electrovalvula FESTO                                                       |
| 10292                                                                           | Regolatore di pressione\Regulator\Regler\Regulador                                                      |
| 10306                                                                           | Vite poelier\Screw slotted mushroom head\Vis\Tornillo TE 08x16                                          |
| 13188                                                                           | Raccordo doppio girevole tubo\Union\Raccord\Empalme Ø6-1/8"                                             |
| 13510                                                                           | Rondella gomma\Gasket\Joint\Junta                                                                       |
| 13885                                                                           | Anello\O-ring\Joint o-ring\Junta 3081                                                                   |
| 13929                                                                           | Raccordo a L girevole\Connector\Raccord\Empalme Ø 6 - 1/8"                                              |
| 17913                                                                           | Tondo per posizionamento sistema pulizia\Pin\Guide\Redondo                                              |
| 18044                                                                           | Raccordo diritto tubo\Connector\Raccord\Unión Ø 6 - 1/8"                                                |
| 22791                                                                           | Spina cilindrica\Parallel pin\Goupille cylindrique\Pasador cilindrico 06x40                             |
| 23124                                                                           | Tondo interno sistema pulizia\Gasket support\Guide\Redondo                                              |
| 23125                                                                           | Vite\Screw\Vis\Tornillo TE 08x16                                                                        |
| 23874                                                                           | Distanziale\Spacer\Entretoise\Distanciador 26.3x40x3.5                                                  |
| 23883                                                                           | Tubo aria\Air pipe\Complete tayau\Tubo                                                                  |
| 23885                                                                           | Ghiera\Ring nut\Bague\Tuerca anular                                                                     |
| 13165T1                                                                         | Tappo cilindrico\Cap\Bouchon\Tapón 1/8"                                                                 |
| 13592T2                                                                         | Regolatore flusso di scarico\Airflow regulator pipe\                                                    |
| 20508T4                                                                         | Raccordo a L girevole\Connector\Raccord\Empalme Ø 6 - 1/8"                                              |
| 20508T6                                                                         | Raccordo a Y\Connector pipe\Raccord\Empalme                                                             |
| 4866T3                                                                          | Valvola\Valve\Soupage\Válvula "FESTO" PPL 1/8"                                                          |
| 549PA                                                                           | Raccordo a L girevole\Connector\Raccord\Empalme Ø 4 - 1/8"                                              |
| 8670T1                                                                          | Testata cilindro pulizia\Head for air cleaning system\Tête du cylindre\Tope de cilindro                 |
| 8670T1ASSY                                                                      | Testata cilindro pulizia completa\Head for air cleaning system assy\Tête du cylindre\Tope de cilindro   |
| 8764T1                                                                          | Perno per sistema pulizia\Pin for air cleaning\Axe dispositif de nettoyage\Perno de sistema di limpieza |



## 9.14.a CLEANING SYSTEM from June 2011

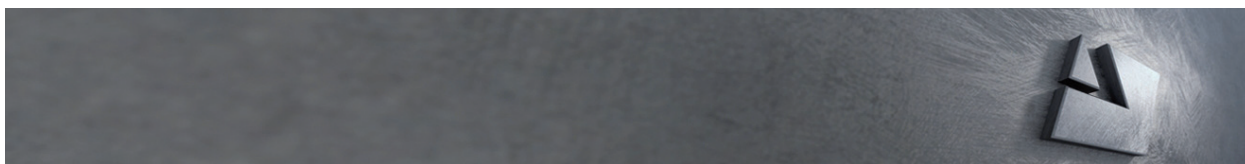




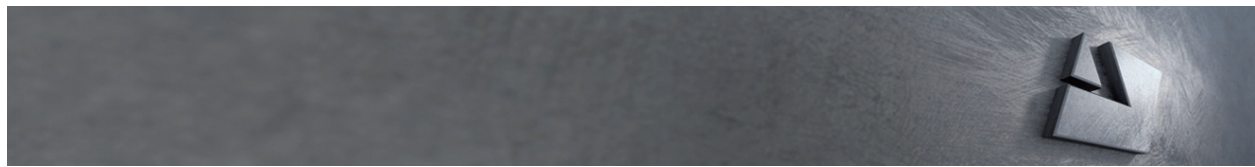
| IMPIANTO DI PULIZIA\CLEANING SYSTEM\DISPOSITIF DE NETTOYAGE\SISTEMA DE LIMPIEZA |                                                                                                         |
|---------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------|
| CODE                                                                            | DESCRIPTION                                                                                             |
| 031                                                                             | Dado\Nut\Ecrou\Tuerca                                                                                   |
| 331                                                                             | Rondella\Washer\Rondelle\Arandela 08x17x1.5                                                             |
| 366                                                                             | Vite\Screw\Vis\Tornillo TE 08x16                                                                        |
| 478                                                                             | Raccordo a L\Elbow union\Connecteur\Empalme decodo                                                      |
| 563                                                                             | Guarinizione dem\Gasket\Joint cylindre\Junta 50                                                         |
| 1641                                                                            | Riduzione\Reducer\Réduction\Reducción 1/4"F-1/8"M                                                       |
| 1817                                                                            | Silenziatore in bronzo\Bronze silencer\Silencieux de bronze\Silenciador 1/8"                            |
| 2004                                                                            | Nipples\Nipples\Raccord filete\Unión 1/4" conico                                                        |
| 2514                                                                            | Getto aria\Nozzle\Jet air\Chorro aire                                                                   |
| 4100                                                                            | Anello\O-ring\Joint o-ring\Junta 3181                                                                   |
| 4866                                                                            | Valvola\Valve\Soupage\Válvula "FESTO"                                                                   |
| 5301                                                                            | Canna per cilindro aria\Cylinder tube\Tube de cylindre\Tubo para cilindro aire                          |
| 6362                                                                            | Dado\Nut\Ecrou\Tuerca                                                                                   |
| 7426                                                                            | Raschiatore per cilindro pulizia\Scraping plate\Plaque à racleur\Placa de limpieza                      |
| 7721                                                                            | Bobina\Coil\Bobine 24V\Bobina FESTO MSFW-24AC-OD                                                        |
| 8671                                                                            | Anello sede guarnizione\Still ring head cylinder\Anneau acier necimeuse cylindre\Anillo acero NR20CNBR  |
| 10099                                                                           | Guarnizione verde testata cilindro\Gasket\Joint\Junta                                                   |
| 10100                                                                           | Raschiatore\Scraper\Racleur\Rascador NR20C                                                              |
| 10142                                                                           | Vite\Screw\Vis\Tornillo TE 05x08                                                                        |
| 10291                                                                           | Elettrovalvola\Valve\Soupage\Electrovalvula FESTO                                                       |
| 10292                                                                           | Regolatore di pressione\Regulator\Regler\Regulador                                                      |
| 10306                                                                           | Vite poelier\Screw slotted mushroom head\Vis\Tornillo TE 08x16                                          |
| 13188                                                                           | Raccordo doppio girevole tubo\Union\Raccord\Empalme Ø6-1/8"                                             |
| 13510                                                                           | Rondella gomma\Gasket\Joint\Junta                                                                       |
| 13885                                                                           | Anello\O-ring\Joint o-ring\Junta 3081                                                                   |
| 13929                                                                           | Raccordo a L girevole\Connector\Raccord\Empalme Ø 6 - 1/8"                                              |
| 17913                                                                           | Tondo per posizionamento sistema pulizia\Pin\Guide\Redondo                                              |
| 18044                                                                           | Raccordo diritto tubo\Connector\Raccord\Unión Ø 6 - 1/8"                                                |
| 22791                                                                           | Spina cilindrica\Parallel pin\Goupille cylindrique\Pasador cilindrico 06x40                             |
| 23124                                                                           | Tondo interno sistema pulizia\Gasket support\Guide\Redondo                                              |
| 23125                                                                           | Vite\Screw\Vis\Tornillo TE 08x16                                                                        |
| 23874                                                                           | Distanziale\Spacer\Entretoise\Distanciador 26.3x40x3.5                                                  |
| 23883                                                                           | Tubo aria\Air pipe\Complete tayau\Tubo                                                                  |
| 23884                                                                           | Bussola\Bush                                                                                            |
| 23885                                                                           | Ghiera\Ring nut\Bague\Tuerca anular                                                                     |
| 13165T1                                                                         | Tappo cilindrico\Cap\Bouchon\Tapón 1/8"                                                                 |
| 13592T2                                                                         | Regolatore flusso di scarico\Airflow regulator pipe\                                                    |
| 20508T4                                                                         | Raccordo a L girevole\Connector\Raccord\Empalme Ø 6 - 1/8"                                              |
| 20508T6                                                                         | Raccordo a Y \Connector pipe\Raccord\Empalme                                                            |
| 4866T3                                                                          | Valvola\Valve\Soupage\Válvula "FESTO" PPL 1/8"                                                          |
| 549PA                                                                           | Raccordo a L girevole\Connector\Raccord\Empalme Ø 4 - 1/8"                                              |
| 8670T1                                                                          | Testata cilindro pulizia\Head for air cleaning system\Tête du cylindre\Tope de cilindro                 |
| 8670T1ASSY                                                                      | Testata cilindro pulizia completa\Head for air cleaning system assy\Tête du cylindre\Tope de cilindro   |
| 8764T1                                                                          | Perno per sistema pulizia\Pin for air cleaning\Axe dispositif de nettoyage\Perno de sistema di limpieza |



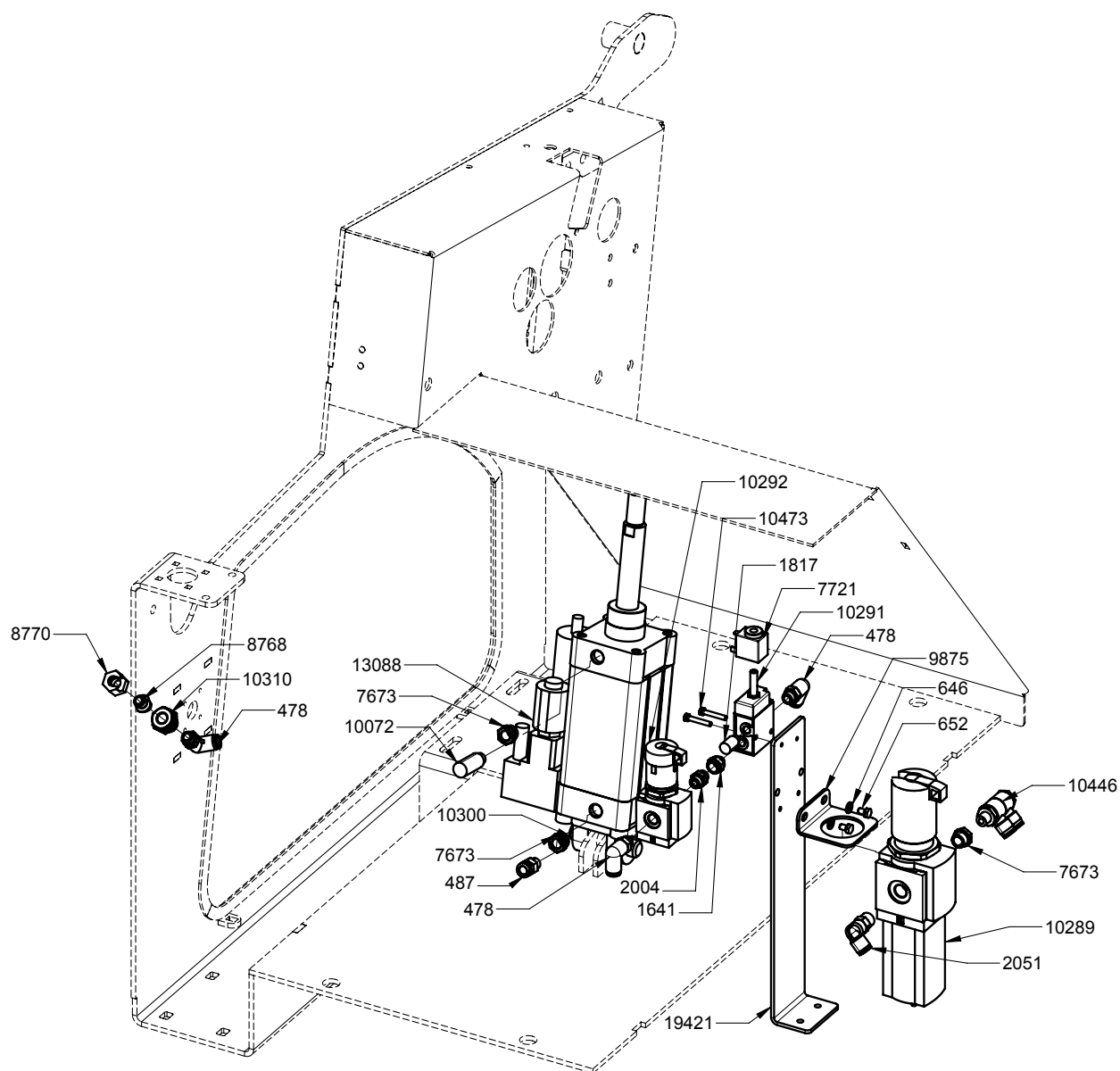


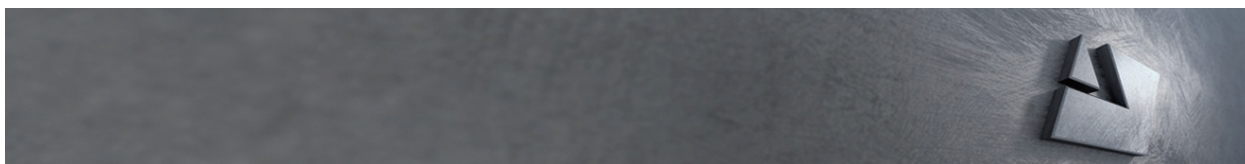


| MOVIMENTAZIONE PRINCIPALE\ MOTOR UNIT\ MOTORISATION PRINCIPALE\ TRANSMISION PRINCIPAL |                                                                |
|---------------------------------------------------------------------------------------|----------------------------------------------------------------|
| CODE                                                                                  | DESCRIPTION                                                    |
| 048                                                                                   | Rondella piana\Washer\Rondelle\Arandela 10x21x2                |
| 299                                                                                   | Rondella piana\Washer\Rondelle\Arandela 08x32x2.5              |
| 331                                                                                   | Rondella piana\Washer\Rondelle\Arandela 08x17x1.5              |
| 337                                                                                   | Ingranaggio\Reverse gear\Engrenage de inversion\Engranaje Z=52 |
| 366                                                                                   | Vite\Screw\Vis\Tornillo TE 08x16                               |
| 390                                                                                   | Vite\Screw\Vis\Tornillo TE 10x40                               |
| 475                                                                                   | Motore\Gear\Motor\Motor Kw1.8                                  |
| 702                                                                                   | Vite\Screw\Vis\Tornillo 10x30                                  |
| 1633                                                                                  | Vite\Screw\Vis\Tornillo 08x50                                  |
| 4074                                                                                  | Distanziale\Spacer\Entretoise\Distanciadador                   |
| 5688                                                                                  | Vite\Screw\Vis\Tornillo 08x65                                  |
| 10298                                                                                 | Riduttore motovario\Gearbox\Reducteur\Reductor motovario       |
| 16075                                                                                 | Tendicatena\Chain stretcher\Tendeur de chaine\Tensacadena      |
| 20107                                                                                 | Pignone\Pinion\Pignon\Piñión                                   |
| 23172                                                                                 | Gruppo Pignoni\Pinion group\Pignon\Pinón                       |
| 23173                                                                                 | Rondella\Washer\Rondelle\Arandela M10                          |
| 23179                                                                                 | Corona nastro anteriore\Crown\Couronne\Corona z=16             |
| 23186                                                                                 | Pignone doppio\Twin pinion\Pignon\Piñión                       |
| 23195                                                                                 | Pignone\Pinion\Pignon\Piñión 1/2" z=11                         |
| 23445                                                                                 | Distanziale\Spacer\Entretoise\Distanciadador                   |
| 23545                                                                                 | Pignone\Pinion\Pignon\Piñión 1/2" z=13                         |
| 134SENI08B.1                                                                          | Catena\Chain\Chain\Cadena 1/2"                                 |

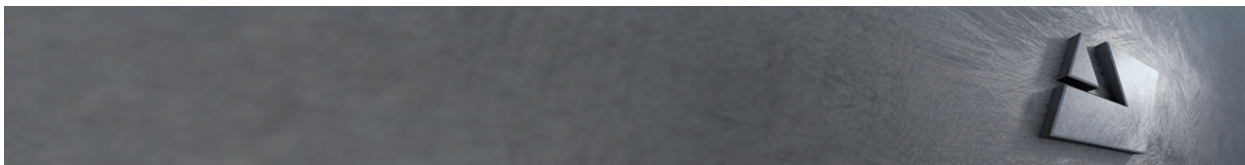


## 9.16. PNEUMATIC SYSTEM





| IMPIANTO PNEUMATICO\ PNEUMATIC SYSTEM\ CIRCUIT PNEUMATIQUE\ INSTALACION NEUMATICA |                                                                                  |
|-----------------------------------------------------------------------------------|----------------------------------------------------------------------------------|
| CODE                                                                              | DESCRIPTION                                                                      |
| 478                                                                               | Raccordo a L girevole\Connector\Raccord\Empalme Ø 10 - 1/4"                      |
| 487                                                                               | Raccordo diritto tubo\Connector\Raccord\Unión Ø 10 - 1/4"                        |
| 646                                                                               | Rondella\Washer\Rondelle\Arandela 06x12x1.6                                      |
| 652                                                                               | Vite\Screw\Vis\Tornillo TE 06x10                                                 |
| 1641                                                                              | Riduzione\Reducer\Reducteur\Reducción 1/4"F - 1/8"M                              |
| 1817                                                                              | Silenziatore in bronzo\Bronze silencer\Silencieux de bronze\Silenciador 1/8"     |
| 2004                                                                              | Nipples\Nipples\Raccord filete\Unión 1/4" conico                                 |
| 2051                                                                              | Raccordo a L girevole\Fastening\Raccord\Unión Ø 10 - 3/8"                        |
| 7673                                                                              | Riduzione\Union\Reducteur\Reducción 3/8"M - 1/4"F                                |
| 7721                                                                              | Bobina festo\Coil\Bobin et connecteur\Bobinas MSFW-24AC-OD                       |
| 8768                                                                              | Raccordo avvitato al basamento\Connector\Raccord\Empalme                         |
| 8770                                                                              | Dado fresato\Clamping cylinder milled nut\Ecrou fraise\Tuerca fresada            |
| 9875                                                                              | Squadretta fissaggio filtro\Stretcher angle fixing plate\Plat\Plato              |
| 10072                                                                             | Silenziatore nylon\Silencer\Silencieux\Silenciador 1/4"                          |
| 10289                                                                             | Filtro regolatore\Filter regulator\Filter manomètre\Filtro-regulador FESTO       |
| 10291                                                                             | Elettrovalvola\Solenoid valve\Bobine\Electrválvula FESTO                         |
| 10292                                                                             | Regolatore di pressione\Regulator\Regler\Regulador                               |
| 10300                                                                             | Flangia oscillante\Flange\Collerette\Brida                                       |
| 10310                                                                             | Raccordo passalamiera\Fitting\Raccord\Reducción 1/4"                             |
| 10446                                                                             | Raccordo doppio girevole\Double fastening\Double Raccord\Double unión Ø 10 - 1/4 |
| 10473                                                                             | Vite\Screw\Vis\Tornillo TE 05x30                                                 |
| 13088                                                                             | Cilindro\Toothroll opening cylinder\Cylindre\Cilindro TECNAIR                    |
| 19421                                                                             | Staffa per supporto filtro\Holder\Patte de suspension\Pata de suspensión         |



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