



Manuale di installazione, uso e manutenzione
Manual for installation, use and maintenance
Manual de instalación, uso y manutención
Notice d'installation, d'utilisation et d'entretien
INSTALLATIONS-, BEDIENUNGS- UND INSTANDHALTUNGSHANDBUCH

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TECHNICAL ENCLOSURES

- A. Technical Specifications
- B. Wiring diagrams
- C. Exploded views

1. PRESENTATION

The **ERCOLINA PLUS** are dough divider-rounders, of different sizes and models, designed to meet the various needs of customers.


They have been designed and constructed to a high standard of quality and ease of maintenance so they last longer.


The construction of the machine has been undertaken with care: the use of stainless steel ensures extremely easy cleaning and a long working life to the product.


Manufacturer thanks you for the preference expressed in purchasing this product. We can confidently assure you that it is a good choice. Our company has been committed to the manufacture of quality products for many years. We do not believe in making compromises and use the best possible materials.


To get the best use out of your new divider and rounder please read the information contained in this manual carefully.

2. HOW TO USE THIS MANUAL


 The paragraphs marked with this symbol contain indications essential to safety. They must all be read by installers, the end user and any employees that use the machine. Manufacturer does not assume any responsibility for damage or injury incurring as a result of ignoring the safety criteria outlined in these paragraphs.

 This symbol, applied to various points on the machine, serves to warn the user of the presence of a non-insulated “high voltage hazard” inside the machine’s casing there being enough power to constitute a fire risk or to electrocute a person.

 The paragraphs marked with this symbol contain important information to avoid causing damage to the machine. It is in the users own interests to read these paragraphs carefully.

 It is recommended that this installation, instruction and service manual be kept in close proximity to the equipment so that it can be easily and quickly consulted. The manual must accompany the equipment if it is resold as it cannot be considered complete and safe without it.

Take note of the manual code and version shown on the back cover. In the event that this copy is lost or destroyed, you can order another using these

 This manual is made up of a number of chapters. They should be read in their entirety by both installers and service personnel as well as by the end user to ensure **safety of use** and to get the best results from this product.

Some useful indications for the consultation of each chapter are given below.

Chapter 3 contains the reference standards of the machine and directions for the proper use of the same.

Chapter 4 contains all the information needed to install the machine. These are mainly aimed at specialized personnel but should be read by the end user beforehand so as to predispose the environment where the machine will be operated for the installation.

Chapters 5 and 6 are intended for the user who has to learn how to **use the machine**. These serve as a guide to the essential operations of turning on, using and turning off of the machine under safe conditions.


Chapter 7 gives all the information necessary for the cleaning of the equipment: all those operations that must be carried out by the user to guarantee that it continues to function under safe, hygienic and sanitary conditions and continues to give the best results.

Chapter 8 gives directions for dismantling the machine.

The technical annexes contain features related to the specific model of machine and all values which may be necessary for the selection, installation and use. This chapter should be used as a point of reference to check that the way the owner intends to use it is in line with the way the machine has been designed to operate and ensure that information concerning the precise value of a given measurement or tolerance of the equipment is available whenever necessary.

This chapter also provides a description of the electrical equipment that comes with the machine, the exploded of equipment and a list of spare parts, to facilitate order and replace any damaged parts.

 **These maintenance operations must be carried out by specialized personnel.**

 The Manufacturer reserves the right to update the production series and instruction manuals without the obligation to update the previous production series and previously issued instruction manuals.

3. TECHNICAL SPECIFICATIONS

3.1. Identifying the product

This manual refers to the **ERCOLINA PLUS** divider-rounders for all models and versions.

3.2. Conformity to European directives

ERCOLINA PLUS divider-rounders carry the **CE** obligatory mark, that guaranteeing their conforming to the following European directives:

2014/35/CE low current directive;


2014/30/CE electromagnetic compatibility directive;

2006/42/CE machines directive;


Regulation 1935/2004/CE objects destined for coming into contact with food products.

3.3. Use intended for the product

The **ERCOLINA PLUS** divider-rounder has been designed exclusively for use in food, with predominant intended use of pizzerias, bakeries....

 The use to which the product should be put as stated above and the configurations foreseen for this equipment are the only ones authorized by the Manufacturer. **Do not use these machines in any way other than that indicated in the instructions provided.**

The **ERCOLINA PLUS** divider-rounders are conceived **for professional use in the foodservice industry by trained personnel.**


 The use intended is only valid for equipment which is in good structural, mechanical and electrical condition.


3.4. Technical Specifications

For technical specifications refer to the following technical annexes at the end of this manual:

- A. Technical Specifications
- B. Wiring diagrams
- C. Exploded views

4. INSTALLATION

 **ATTENTION!** These installation instructions are for the exclusive use of personnel qualified for the installation and maintenance of electrical equipment conceived for professional use in the foodservice industry and community catering operations. An installation carried out by unqualified persons could cause damage to the machine, to people, animals or property

 **ATTENTION!** Proceed with the installation according to those norms in force in the country where it is being carried out.

In addition, where it is necessary to carry out modifications or adaptations to the electrical systems of the building in which the machine will be installed, whoever carries out such modifications must certify that the work has been undertaken according to current “best practices”.


4.1. Checking on delivery

Unless otherwise agreed, the products are carefully packaged in a robust structure in wood and with a sheet of nylon bubble wrap giving protection against knocks and humidity during transport. These are consigned to the freight operator in the best of condition.

We recommend, however, that you to check the packaging on arrival for any signs of damage. If damage has occurred, have it noted on the receipt which must be signed by the driver.

Once the equipment has been unpacked, check that it has not suffered damage. Also check that all the disassembled parts are present.

In the event of damage to the equipment and/or missing parts, bear in mind that the freight operator can only accept claims within 15 days of delivery and that the manufacturer cannot be held responsible for damage incurred to its products during their delivery. We are however, available to assist you in presenting your claim.


 **In the event of damage do not try to use the equipment and consult with professionally qualified personnel.**

4.2. Choosing a place for installation

An effective, safe and long lasting functioning of the appliance also depends on the position in which it is installed. For this reason, it is advisable to carefully consider where to install the equipment before it is delivered.

Install the appliance in a dry and easily accessible place both to facilitate its use and to carry out cleaning and maintenance. The area around the equipment must be kept clear. It is particularly important to avoid obstructing the cooling outlets located on the sides of the machine.

 **The appliance must be installed at least 20 cm from the walls of the room or from other equipment.**


 A check must be made to ensure that the temperature and relative humidity never exceed the maximum and minimum values indicated in the specifications (Technical annexes) even when the machine or other machines in the room are functioning.

Exceeding these values especially the temperature or the maximum relative humidity can easily and unexpectedly damage electrical equipment creating hazardous situations.


4.3. Moving the unit


The appliance is supplied complete with all its parts in its own packaging closed and held together with straps.

The appliance must be offloaded from the transport vehicle using an appropriate moving equipment. Whilst it is being raised, avoid tugging or sudden movement. To transport the appliance to its place of installation use a wheeled trolley with an adequate weight capacity.

 Make sure that the lifting equipment has a lifting capacity superior to that of the weight of the load.

All responsibility for the lifting of loads rests with the person doing the lifting.

 In all circumstances, to avoid unpredictable movement, be aware of the equipment's centre of mass.

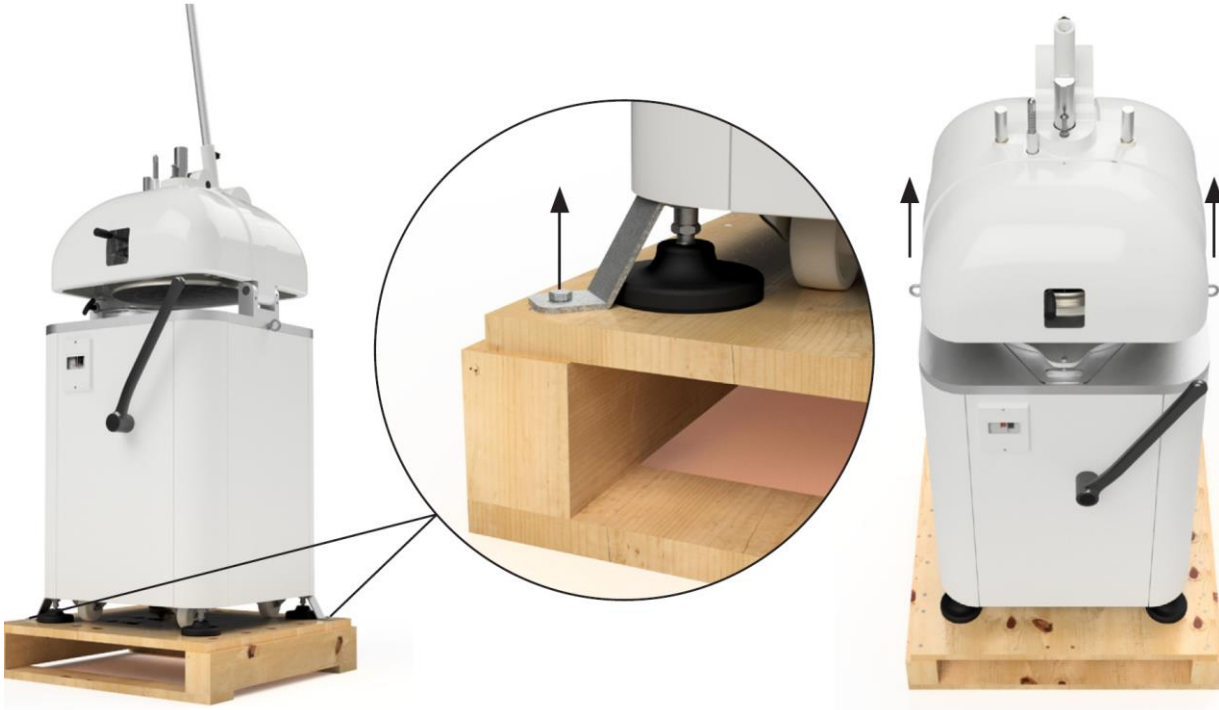
 **Take care that children do not play with the packaging materials (e.g., plastic sheeting and Styrofoam): suffocation danger!**

Remove the packaging vertically.


Carefully unpack the machine and check there are no signs of damage from transport. If found, promptly inform the carrier. You are always advised to photograph the damage.

Remove the fastening brackets as in the figure and, using a forklift (or a lifting device), remove the machine from the pallet.

To ensure further staff safety, you are advised to maintain a sufficient distance from the machine when it is being lifted.



4.4. Electrical Connection

 Before making any connection, check that the specifications of the electrical supply to which the equipment must be connected, correspond to the specifications of the power supply required by the apparatus itself.

In compliance with the norms in force. **It is obligatory to connect the ground/earth cable (yellow-green) to an earthing system with the same dispersion capacity as the appliance itself. The efficiency of this system must be correctly verified according to the norms in force.**

The electrical socket must be easily accessible and must not require further location after the installation of the equipment. The distance between the equipment and the socket must be sufficient to avoid stretching the power cable. The power cable must never be trapped under the feet or wheels of the equipment.

 **If the Power cable is damaged it must be substituted by customer support or by a qualified service engineer so as to avoid any risk.**

The Manufacturer does not accept responsibility for damage caused by failure to observe the abovementioned norms.


4.5. Functional check

A qualified technician should carry out installation and an electrician should connect the machine to the power supply system. Firstly check the voltage and the connection phases are equal to those of the machine (see identification plate). If this is not the case, contact the retailer.

Check the rotation direction of the motor on the machine. Turn the main knob to position I-ON. Close the guard casing and run an "empty" work cycle. Check if the shaping plate oscillates. If this is not the case, an electrician must invert the phases, i.e. he must invert the two cables in the power plug to change the rotation direction of the motor.

5. FUNCTIONING AND USE

5.1. Preparing the machine for use

 If the machine has just been installed or if it has lain idle for a number of days, it needs to be completely cleaned as indicated in chapter 7 before using it for food preparation. This is to eliminate residues left over from the manufacturing process and the accumulation of dust or other substances that could contaminate food products.

5.2. Safety devices

ANTI-INTRUSION FIXED GUARDS

Structures that prevent operators coming close to the dangerous parts inside the machine.

SAFETY MICROSWITCHES

These stop the machine in case the over-vat guard is opened during the operation.

ANTI-VIBRATION FEET

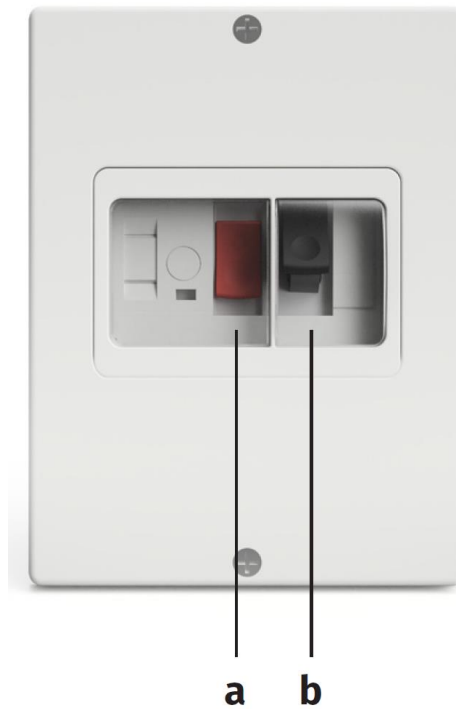
Reduce the transfer of vibrations to the ground.

LOW VOLTAGE CONTROLS

The control panel is supplied with 24 V to avoid the danger of electrocution.

 **IT IS ABSOLUTELY FORBIDDEN to inhibit and/or modify safety devices and functions.**

5.3. Description of controls



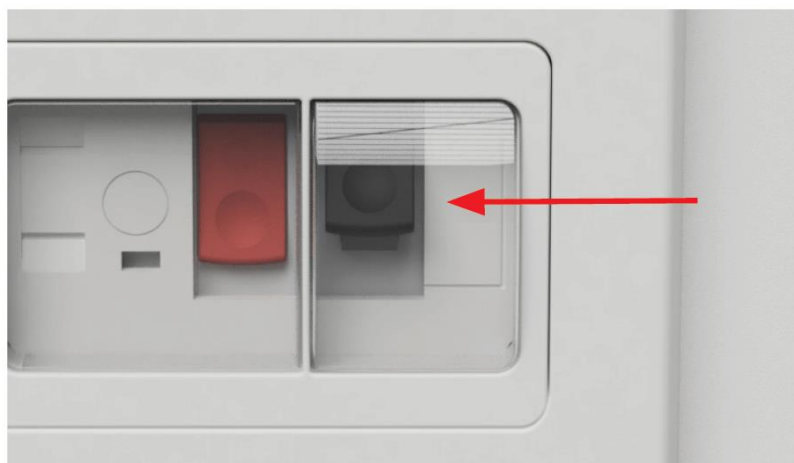
a	Start button
b	Stop button

5.4. Functioning

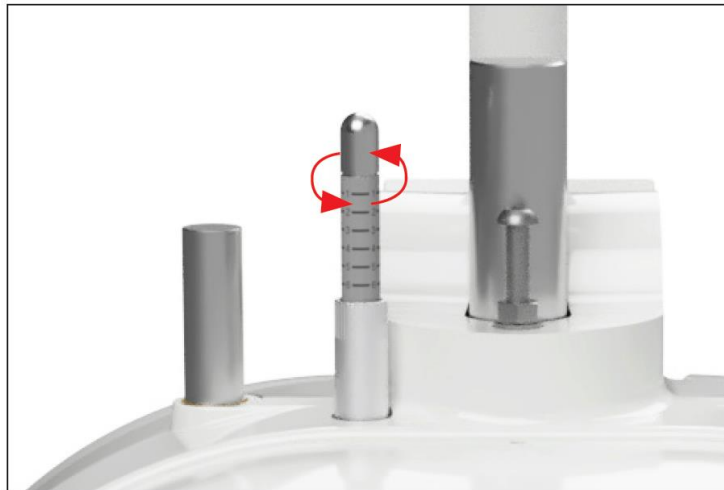
5.5. Working cycle

⚠ The operator visually checks the work cycle and intervenes personally when work is stopped.

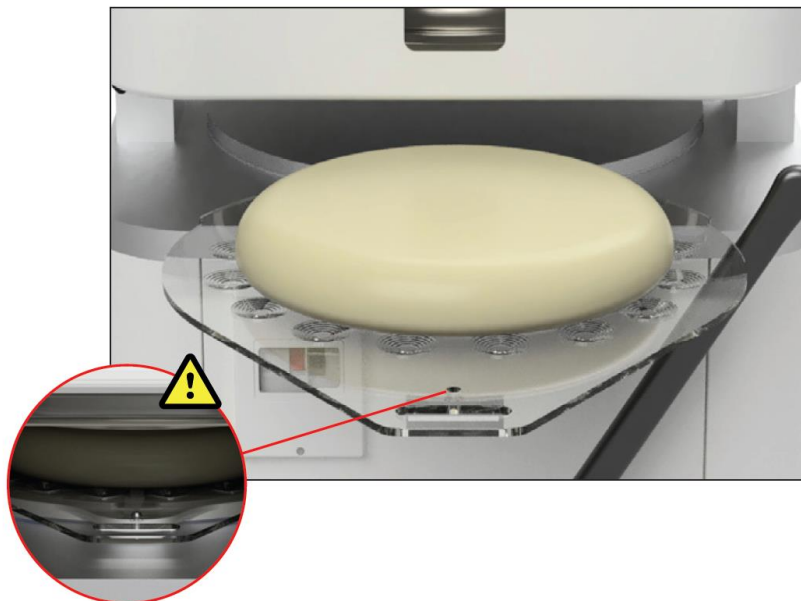
The phases follow for correct use of the divider-rounders.



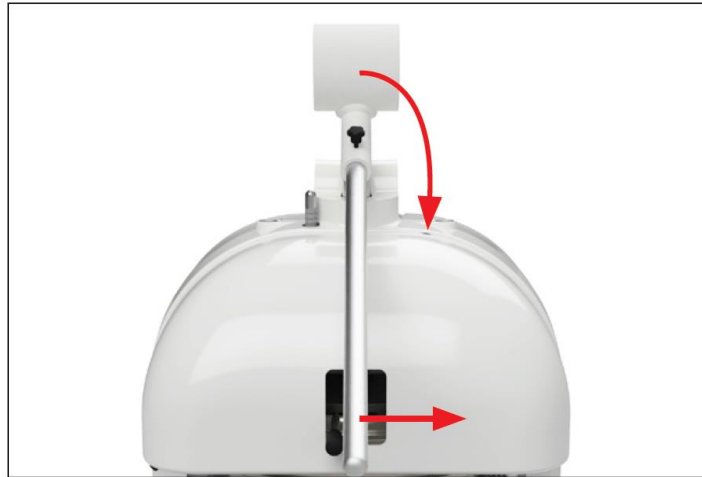
1. Press the START button to start the machine.



2. Adjust the weight regulating rod according to the desired dough weight. The regulating rod position determines the volume of the forming chambers, so it is regulated according to the weight of the dough that is to be cut. Since the correct adjustment depends on the dough consistency, regulating is a matter of experience. If the final volume of the forming chambers is too small, the balls of dough will be damaged. If the volume is excessive, the balls of dough will not be sufficiently formed.



3. Insert the plate with the weighed dough inside the machine, paying attention you insert it correctly.
Put the piece of dough in the middle of the forming plate and flatten it by hand, spreading it over the plate. Take care not to let the dough get out of the circular hollows.



4. (Operation 1) Lower the pressure handle and press it, thus compressing the dough. Once the pressing operation has been completed, do not lift the handle but keep it in that position.
(Operation 2) Cut the dough, pushing the dividing handle to the right; when this operation is performed, the blade will be released: lower the handle further, as far as it will go, to ensure that the dough has been completely cut.



5. To start forming, slightly lower the forming handle. The moulding operation continues as long as the handle is down. The optimum forming time is established by experience and depends on the consistency of the dough.



6. When the rounding phase is finished, return the forming handle to neutral position (wait until the forming plate stops), then raise also the pressure handle and return it to neutral position.



7. Extract the forming plate with the rounded pieces.

5.5.1. Useful advice

To obtain a good product, proceed as follows:

- Do NOT put flour on the shaping plate.
- Be sure the dough has the right pre-leavening time;
- Place the dough (the dough must stay inside the plate imprints);
- If the dough is sticky, put flour on the dough.

The pieces of dough are not the same weight?


- Ensure the piece of dough is positioned at the centre of the plate and is slightly pressed by hand. The dough must stay inside the plate imprints.
- Be sure the dough has the right pre-leavening time.
- (depending on the dough, but fifteen minutes is normally enough).
- If the outer pieces are smaller than the inner ones, you need to increase the pressing time.
- If the outer pieces are bigger than the inner ones, you need to decrease the pressing time.


The pieces of dough are not completely shaped or have an irregular surface?


- Increase or decrease the shaping chamber.
- Increase or decrease the rounding time until the dough will have a more even shape.


The pieces of dough have not got a smooth surface?

- Increase or decrease the shaping chamber.
- Increase or decrease the rounding time.

 Check the weight of the dough to cut complies with the capacity of the machine.

 You are advised to correctly insert the shaping plate inside the machine because incorrect insertion of the plate could seriously damage the machine.

 Check the rotation direction of the shaping plate, otherwise the machine will not work. If necessary, invert two phases of the current socket.

 With a medium consistency dough, the machine can produce pieces of dough varying in weight by 3-4%.

6. SAFETY WARNINGS

6.1. Prohibited actions and obligations towards the prevention of accidents

 **Read the warnings listed in this chapter carefully. They give important indications concerning safety.**

It is forbidden to install accessories that do not conform with safety standards.

Have the appliance inspected regularly by a qualified technician to guarantee your safety.

6.1.1. *Warnings for installers*

Check that the preparation for housing the appliance conforms to the local National and European regulations.

- Follow all the indications in this manual
- Do not make any overhead electrical connections using provisional or non-insulated cabling.
- Check that this electrical equipment is efficiently earthed.
- Always use personal safety devices and other means of protection foreseen by the law.

6.1.2. *Warnings for users*

The environmental conditions of the place where the appliance is to be installed must have the following characteristics:

- the area must be dry;
- be distant from sources of heat or water;
- have adequate ventilation and illumination conforming to the norms of hygiene and safety foreseen by the laws in force;
- The floor must be level and compact to facilitate thorough cleaning;
- there must not be any obstacles of any kind in the immediate vicinity that could compromise the normal ventilation of the area;

Apart from this the user must:

- make sure that children do not come close to the equipment whilst it is functioning;
- observe the rules laid out in this manual;

- not use the machine inappropriately but stick scrupulously to the use for which it was designed;
- not remove or interfere with the equipment's safety mechanisms;
- keep the safety systems in good working order;
- carry out all working procedures with the utmost safety and calm;
- respect the instructions and warnings highlighted by the signs on the equipment. These signs are to prevent accidents and must always be perfectly legible. Whenever they are damaged or illegible it is obligatory to replace them by requesting the original part from the manufacturer;
- disconnect the electricity supply after the appliance has been used,
- before carrying out cleaning or maintenance.

⚠ ATTENTION! Whilst the machine is working it is forbidden to remove the safety protection seeing that its parts are moving. These could cause injury to hands.


⚠ In the case of fire do not use liquid extinguishing agents but only those in powder form

6.1.3. *Warnings for the maintenance operator*


⚠ Disconnect the electricity supply before working on electrical or electronic parts or connections.


- Always use personal safety devices and other means of protection.
 - Before beginning any maintenance, operations make sure that the equipment has cooled down if it has just been used.
 - Should one of the safety devices not work or not be set correctly the appliance must be considered out of order.
- .

7. CLEANING AND MAINTENANCE


 **Cleaning should be carried out with the equipment turned off and at room temperature having taken the precaution of disconnecting the electricity supply.**

Weekly maintenance can be carried out by the equipment's operator given that they observe the safety procedures set out in this manual. A simple but regular and careful clearing guarantees efficient performance and the normal functioning of this equipment.


 Always use person protection gear and always use tools that are appropriate for maintenance.

 Do not direct jets of water onto the equipment for clearing as these can penetrate through to and damage the electrical system with the consequent risk of electrocution and the equipment starting up unexpectedly.

It is advisable to wash the various removable parts before food residues on them dry and go hard.

 Do not use abrasive tools (abrasive sponges, etc.) because these will cause the stainless steel and glass parts to become opaque and will, quite quickly, remove the protective layer of aluminum coated sheet steel, at which point it will start to rust.

 Do not use detergents containing chlorine.

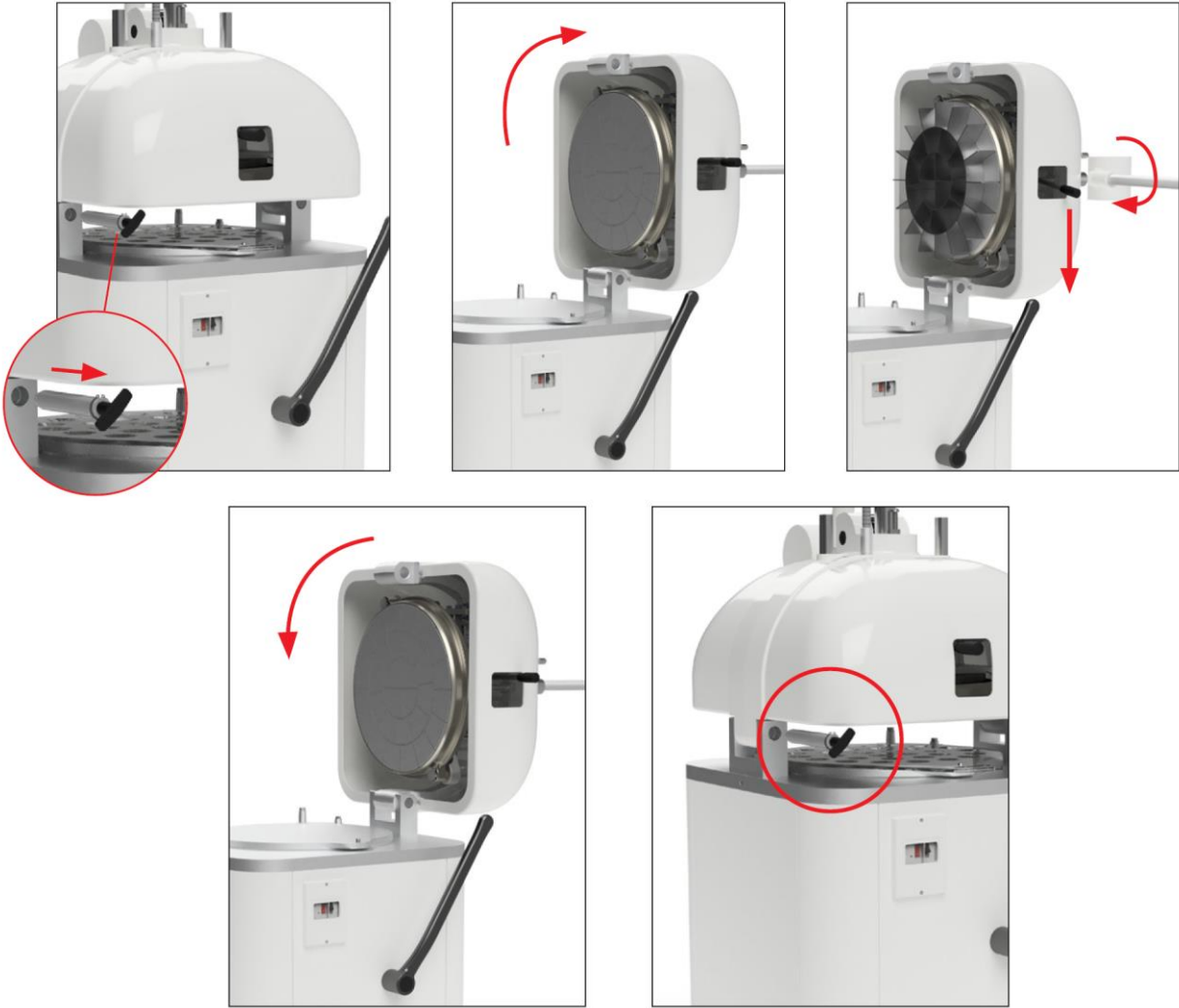
 **After the maintenance operation or repair has been carried out, reinstall all physical protection and reactivate all safety devices before putting the machine back into service.**

7.1. Daily cleaning

To clean the machine daily, follow the phases as outlined below.

1. Remove the fastening pin of the cutting unit.
2. Open the cutting unit accompanying it to the support
3. Release the divider handle and lower the pressure handle. The knife exits.
4. Once the knife is cleaned, reposition the pressure handle in the rest position. Close the cutting unit.

5. Insert the fastening pin of the cutting unit.

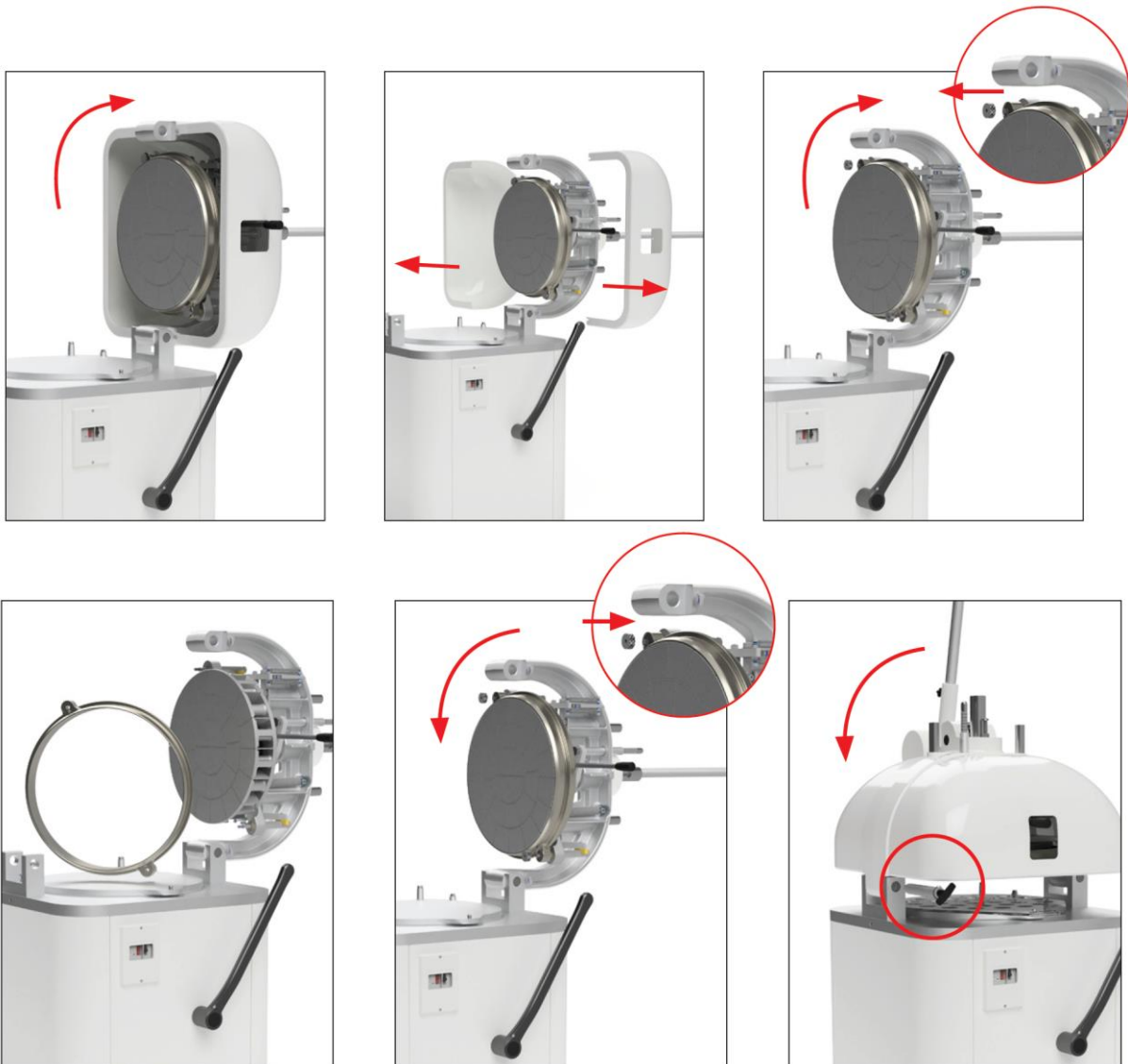


7.1.1. *Periodic maintenance*

To ensure the machine works properly and, in particular to ensure a long life, you are advised to periodically clean the ring on the head (see instructions below).

The stainless steel parts, the painted covers, the polyethylene PE500 and the plates in PETG can be easily cleaned with water and soap or a neutral detergent, then you need to rinse them with plenty of water and dry them with a soft cloth.

1. Open the cutting unit accompanying it to the support.
2. Remove the two casings of the cutting unit by unscrewing the fastening screws.
3. Remove the ring fastenings (x2).
4. Remove the ring and clean it inside with a plastic scraper.
5. After cleaning, re-position the ring and fasten the relevant locks.
6. Close the cutting unit and insert the fastening pin.

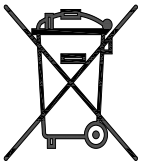


8. DECOMISSIONING AND DEMOLITION

Before proceeding with the decommissioning disconnect the electrical supplies to the equipment and any other connections there may be and then move the modules using suitable means such as: forklift trucks, hoists, and so on.

The machines are made up of the following materials: stainless steel, coated steel, glass, ceramic material, rock wool and electrical parts. For the purposes of demolition therefore the materials have to be separated in observance with the norms in force in the place where the machine is being dismantled.

In any case, do not dispose of these directly into the environment.



Separate collection. This product must not be disposed of with normal household waste. Local RAEE regulations may provide for separate collection of this kind of product.

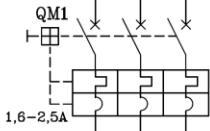
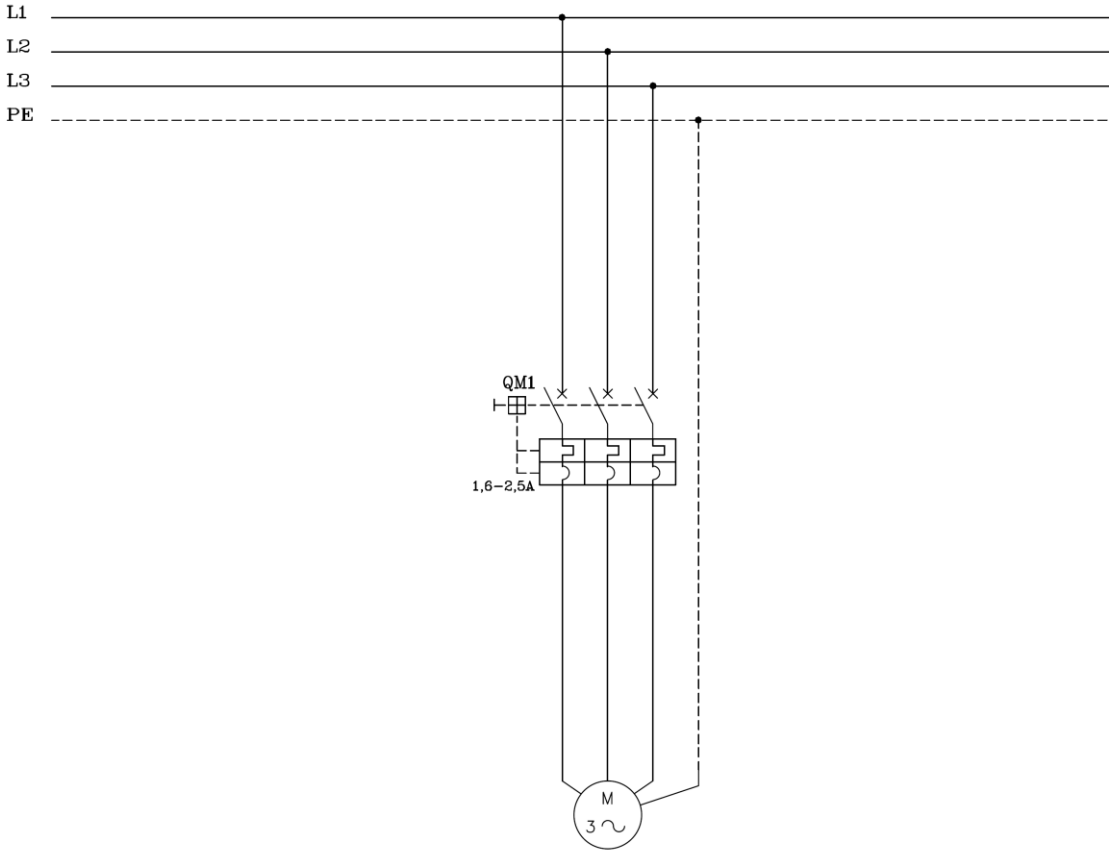
Allegati tecnici
Technical enclosures

A. CARATTERISTICHE TECNICHE

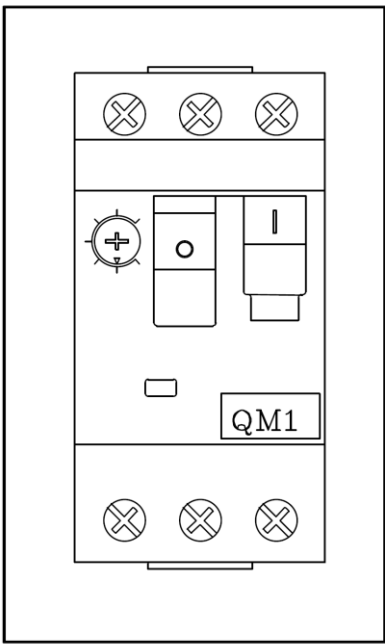
A. TECHNICAL SPECIFICATIONS

	DIVISIONI						
	11	15	18	22	30	30s	36
Peso Weight	180 kg	180 kg	180 kg	180 kg	180 kg	180 kg	180 kg
Larghezza A Width A	610 mm	610 mm	610 mm	610 mm	610 mm	610 mm	610 mm
Profondità B1 Depth B1	680 mm	680 mm	680 mm	680 mm	680 mm	680 mm	680 mm
Profondità B2 Depth B2	1000 mm	1000 mm	1000 mm	1000 mm	1000 mm	1000 mm	1000 mm
Altezza H1 Height H1	2050 mm	2050 mm	2050 mm	2050 mm	2050 mm	2050 mm	2050 mm
Altezza H2 Height H2	1500 mm	1500 mm	1500 mm	1500 mm	1500 mm	1500 mm	1500 mm
Ø testata Head Ø	400 mm	400 mm	400 mm	400 mm	400 mm	340 mm	400 mm
Potenza totale Total electrical power	0,55 kW	0,55 kW	0,55 kW	0,55 kW	0,55 kW	0,55 kW	0,55 kW
Tensione Voltage	400 V	400 V	400 V	400 V	400 V	400 V	400 V
Frequenza Frequency	50 Hz	50 Hz	50 Hz	50 Hz	50 Hz	50 Hz	50 Hz
Grammatura Grammage	180/500 g	150/360 g	120/280 g	60/220 g	40/135 g	25/90 g	34/110 g
Peso pasta Pastry weight	5,5 kg	5,5 kg	5 kg	5 kg	4 kg	2,7 kg	4 kg
Capacità oraria Capacity per hour	1300 pz	1800 pz	2100 pz	2600 pz	3600 pz	3600 pz	4300 pz
Condizioni ambientali - Environment							
Temperatura ambiente Temperature	0 – 40 °C						
Umidità massima Maximum humidity	95% senza condensa without condensation						
Livello di rumore Noise level	< 70 decibel						

B. SCHEMI ELETTRICI
B. WIRING DIAGRAMS



MOTORE ARROTOLAMENTO



C. DISEGNI ESPLOSI ED ELENCO PARTI DI RICAMBIO

Per interventi complessi e nel caso di rotture vi preghiamo di contattarci. Comunque, allo scopo di semplificare la ricerca dei guasti e l'eventuale sostituzione delle parti danneggiate, diamo di seguito una lista delle parti di ricambio, i disegni esplosi e figure con i riferimenti a ciascuna delle parti elencate.

C. EXPLODED VIEWS AND LIST OF SPARE PARTS

For complicated maintenance works and in case of breakages we kindly ask you to contact us.

However, in order to simplify troubleshooting and possible replacement of damaged parts, we give below a list of spare parts, exploded drawings and figures with references to each party listed.

C. DIBUJOS TÉCNICOS Y LISTA DE REPUESTOS

Para interventos más complicados y en caso de rupturas, les rogamos contactarnos. En todo caso, con el fin de simplificar la búsqueda de las averías y la eventual sustitución de piezas dañadas, damos a continuación una lista de repuestos, los dibujos técnicos y figuras referentes a cada una de las piezas elencadas.

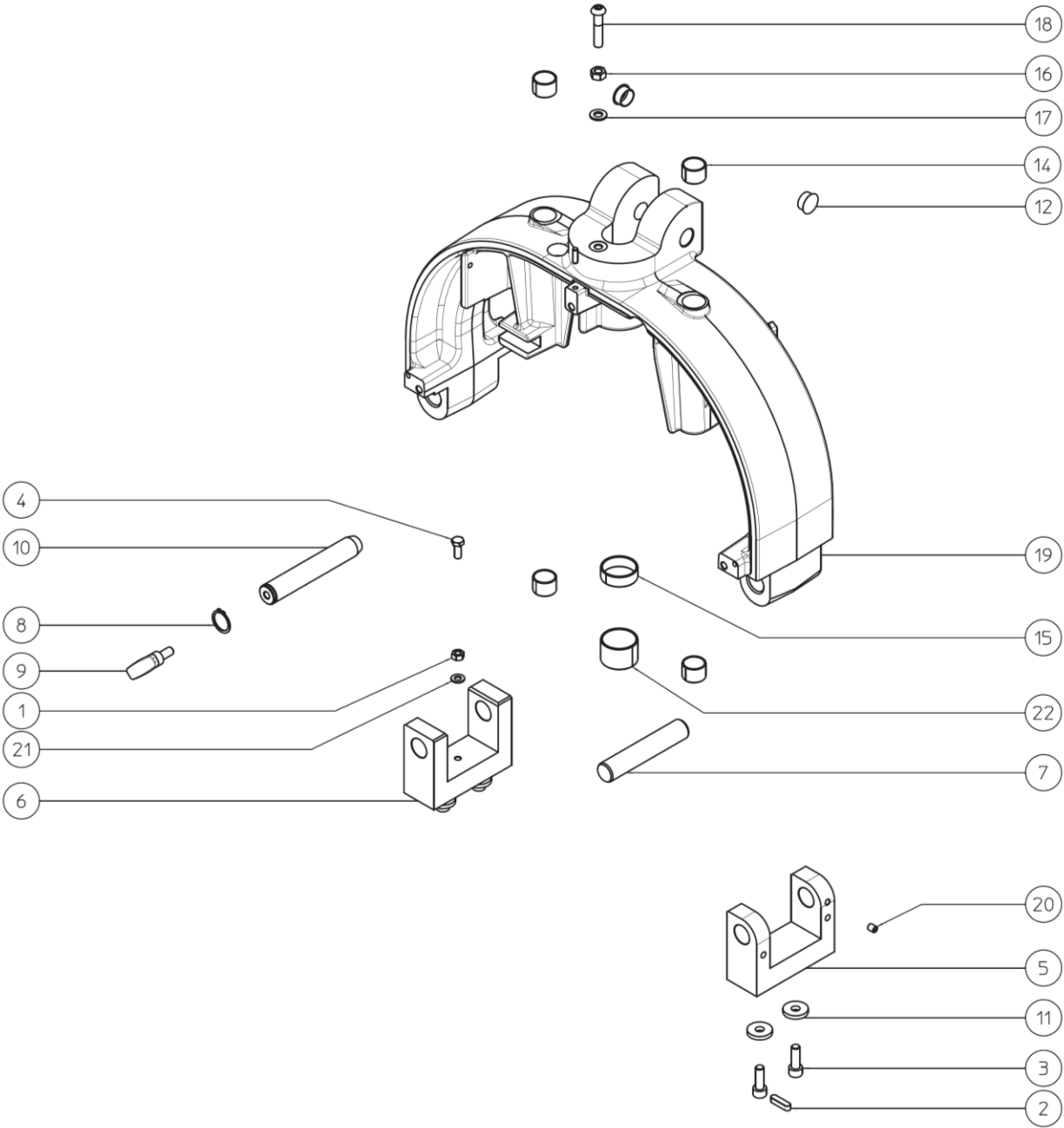
C. Dessins d'ensemble et liste des pièces de rechange

Nous vous prions de nous contacter en cas d'interventions plus complexes ou de ruptures. Toutefois, afin de simplifier la recherche des avaries et l'éventuelle substitution de pièces endommagées, vous trouverez ci-dessous une liste des pièces de rechange, les dessins d'ensemble et les figures avec les références de toutes les pièces indiquées.

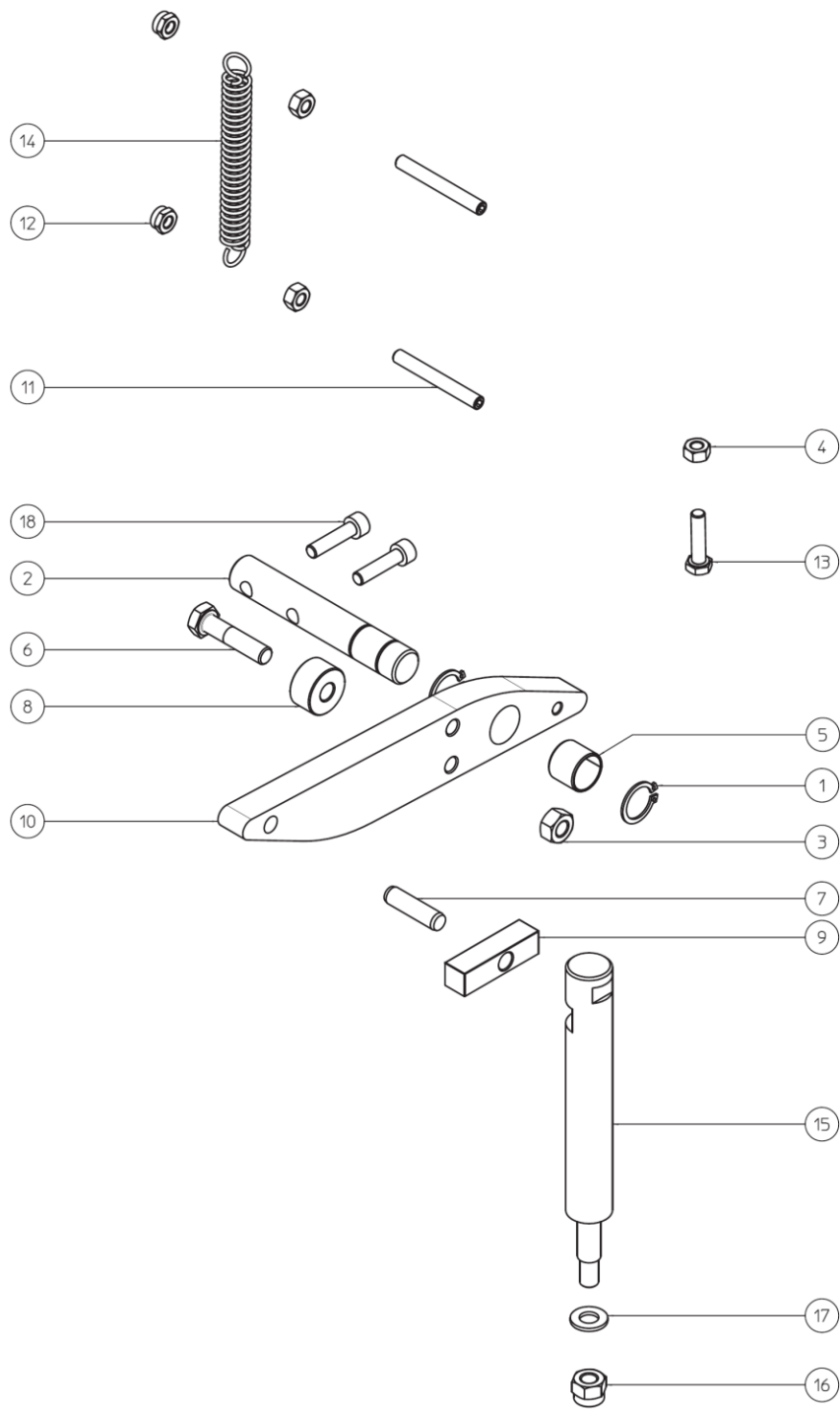
C. EXPLOSIONSZEICHNUNGEN UND ERSATZTEILLISTE

BITTE SETZEN SIE SICH BEI UMFANGREICHEREN EINGRIFFEN BZW. BEI BRÜCHEN MIT UNS IN VERBINDUNG. UM DIE STÖRUNGSSUCHE UND DAS AUSWECHSELN VON EVENTUELL BESCHÄDIGTEN TEILEN ZU ERLEICHTERN, FÜHREN WIR NACHSTEHEND EINE ERSATZTEILLISTE UND DIE EXPLOSIONSZEICHNUNGEN MIT DEN BEZÜGEN DER AUFGEFÜHRTE TEILE AUF.

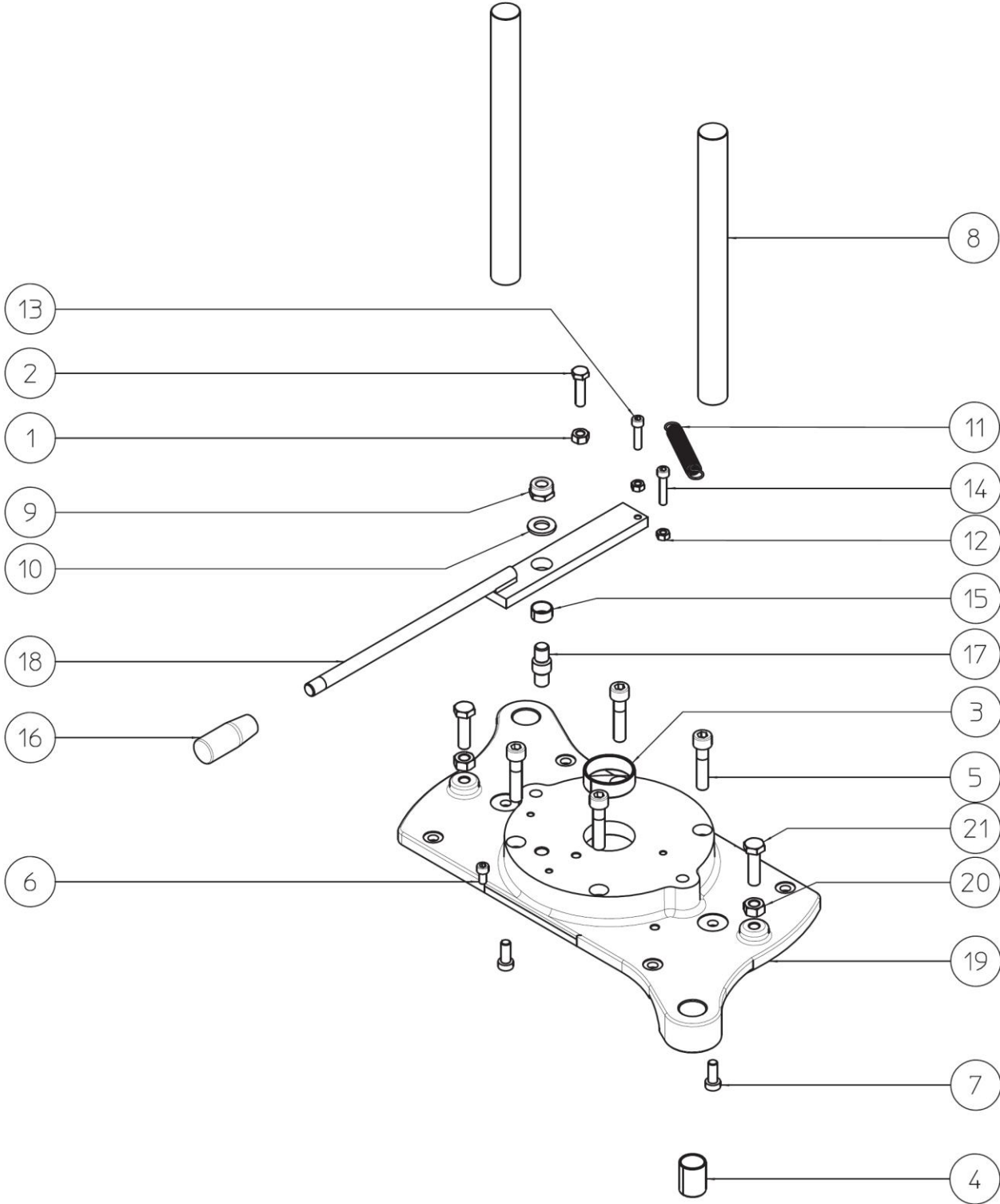
Gruppo supporto taglio - Knife support group



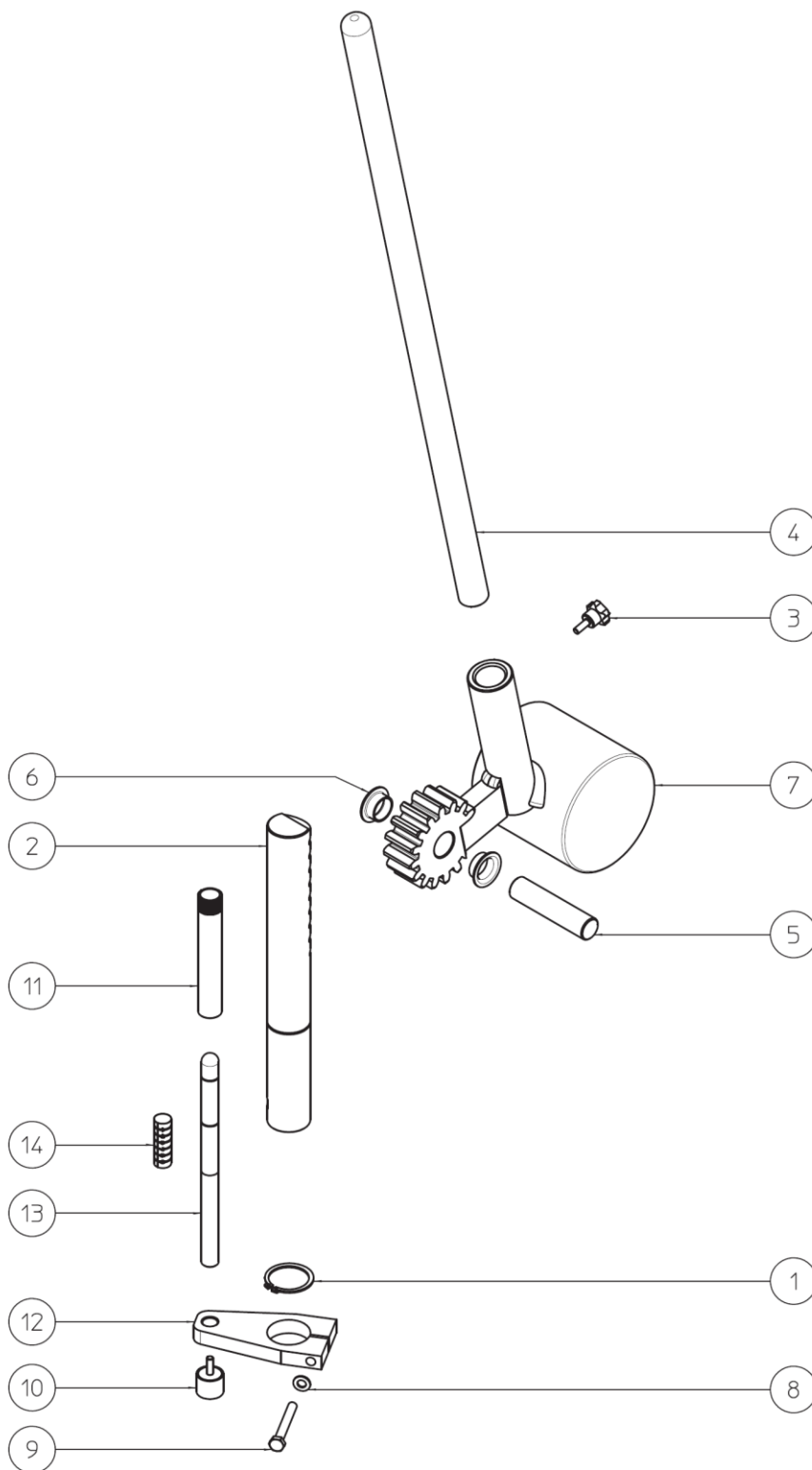
Gruppo azionamento anello – Operate ring group



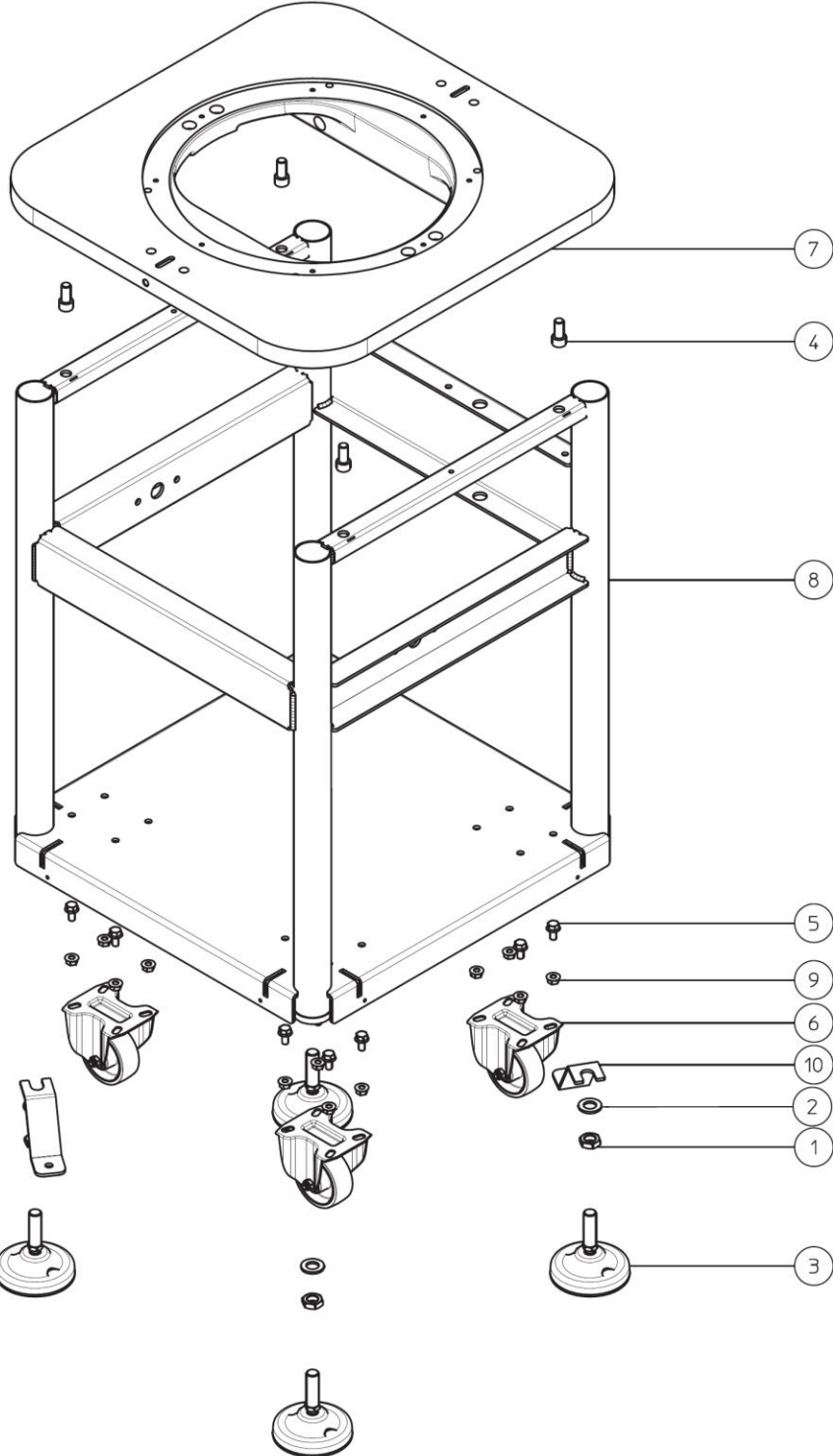
Gruppo piastra attacco testata – Head plate group



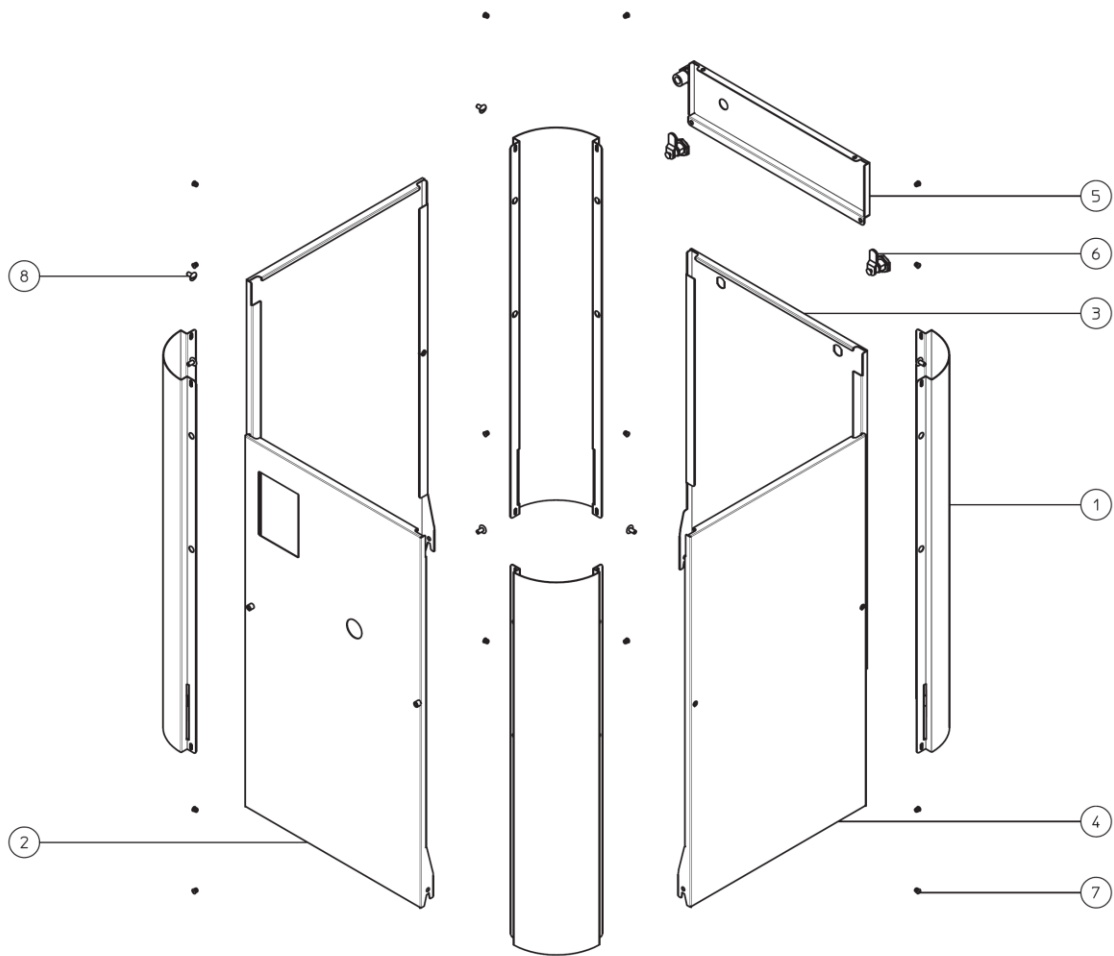
Gruppo azionamento taglio –



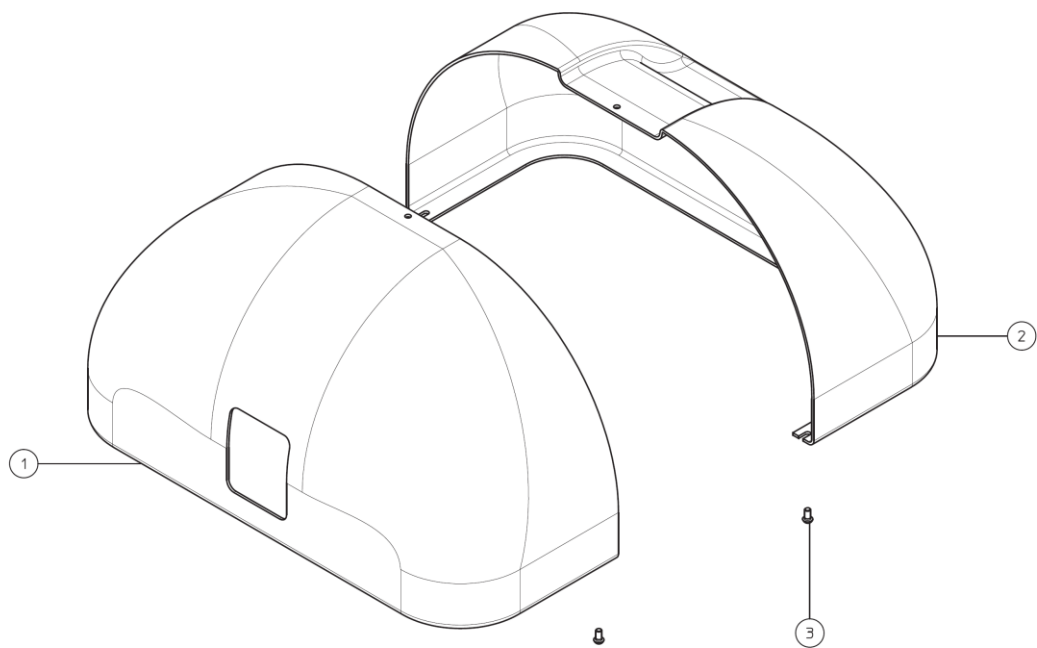
Gruppo telaio – Frame group



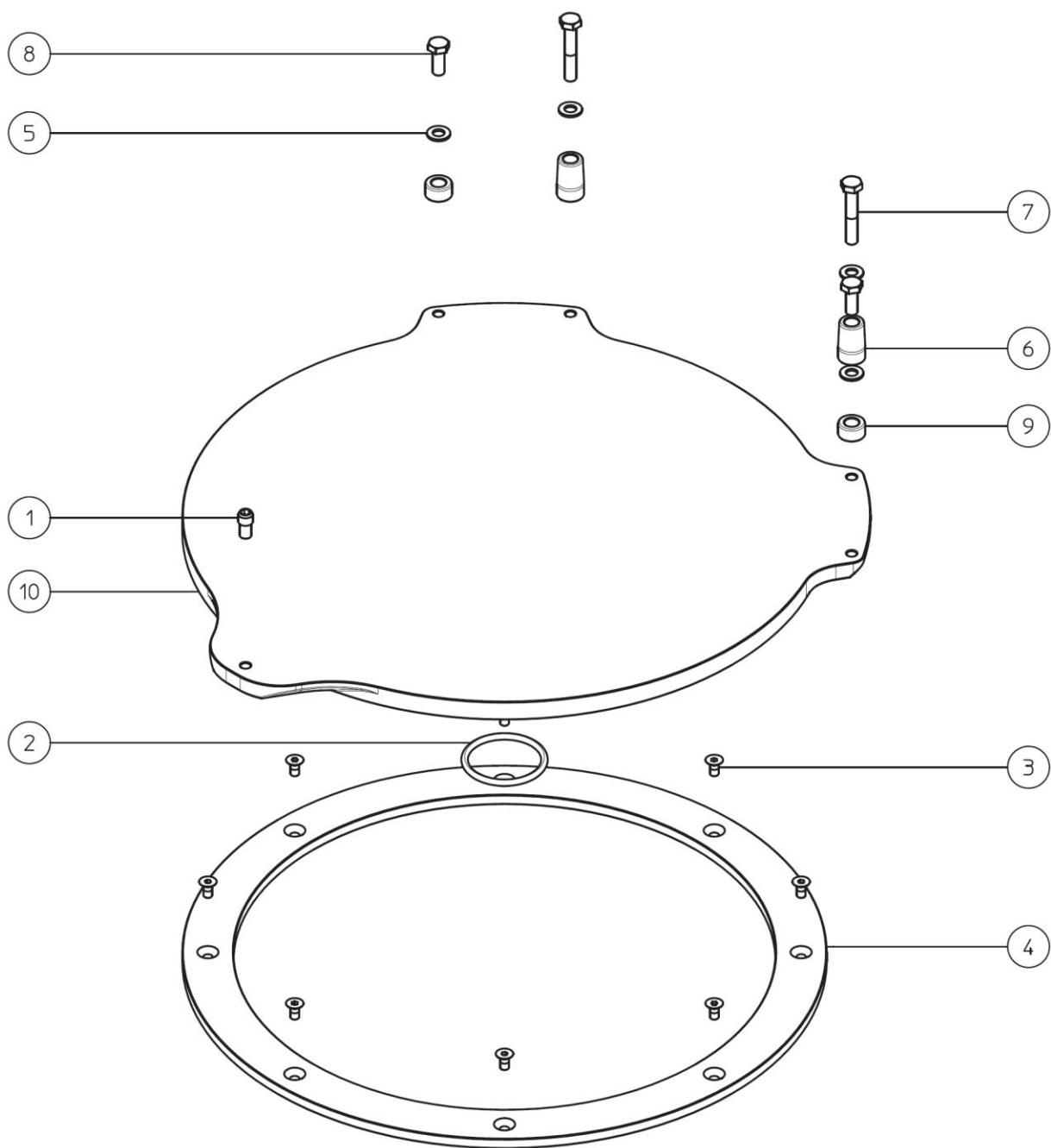
Gruppo scocca - Casing group



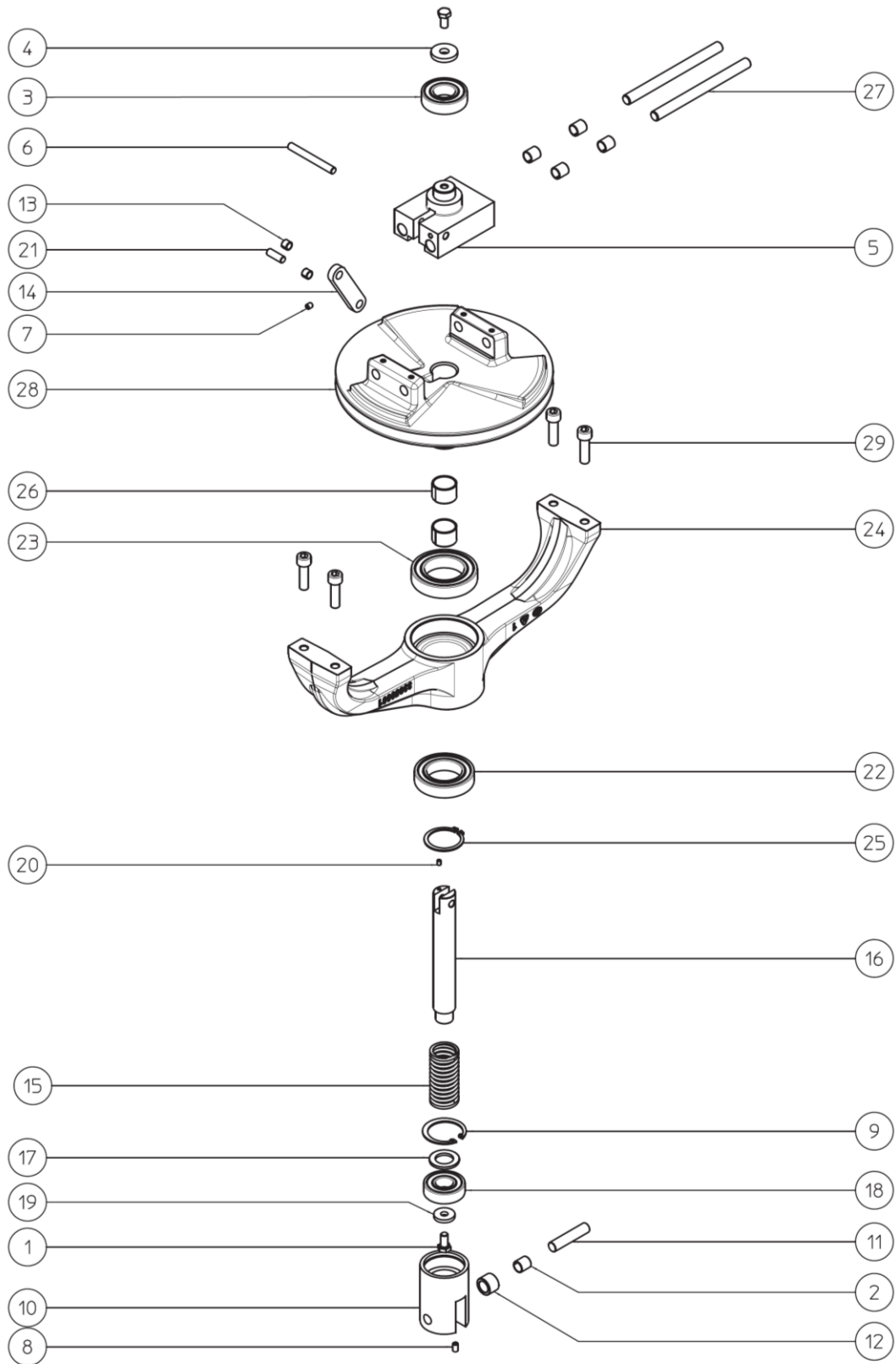
Gruppo riparo testata – Guard head group



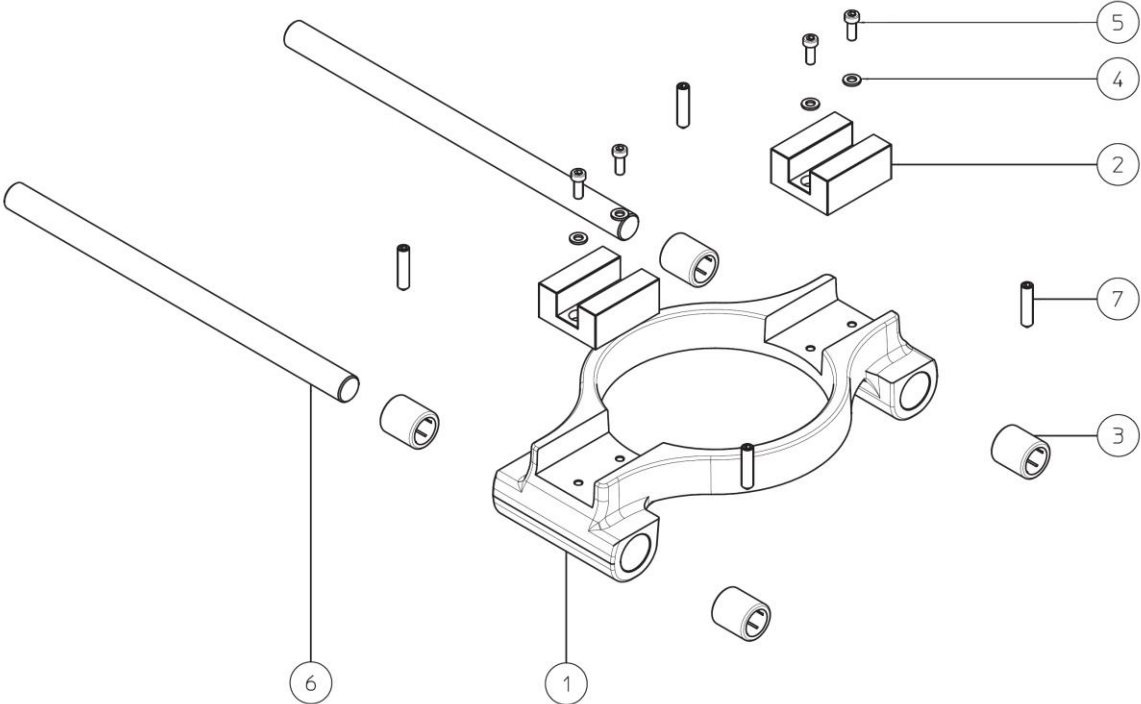
Gruppo piastra arrotondamento – Rounding plate group



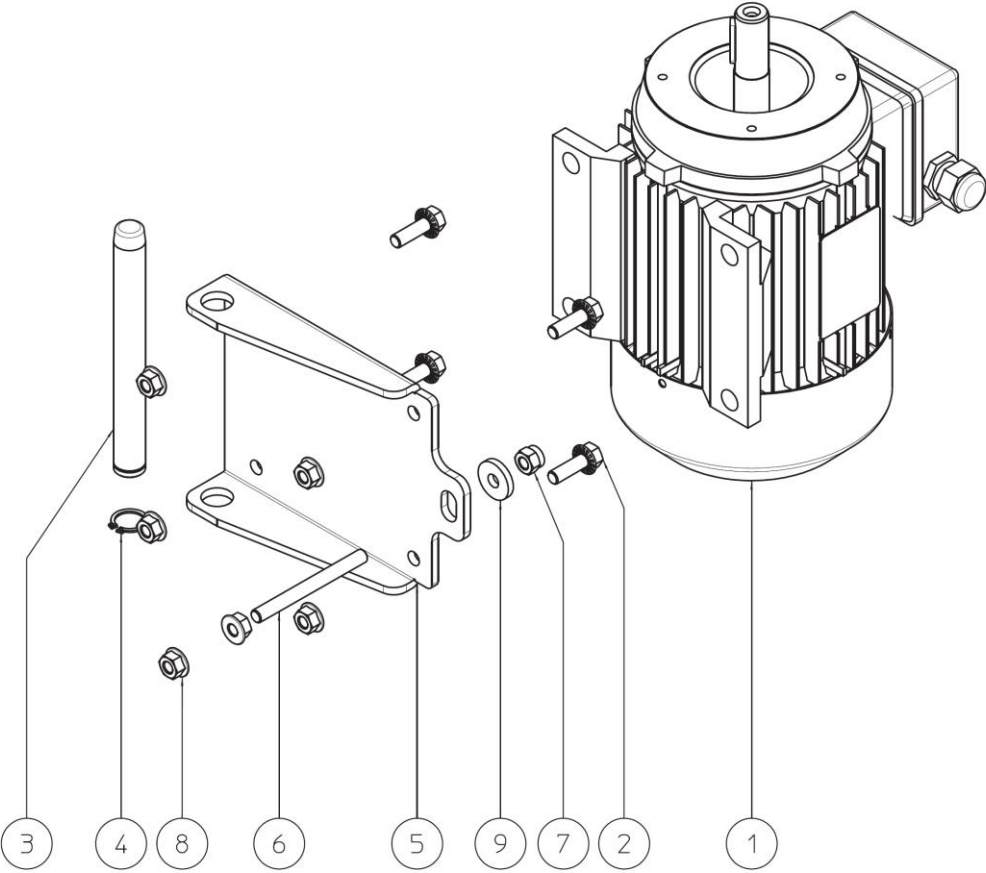
Gruppo puleggia semi automatica – Semi-automatic pulley group



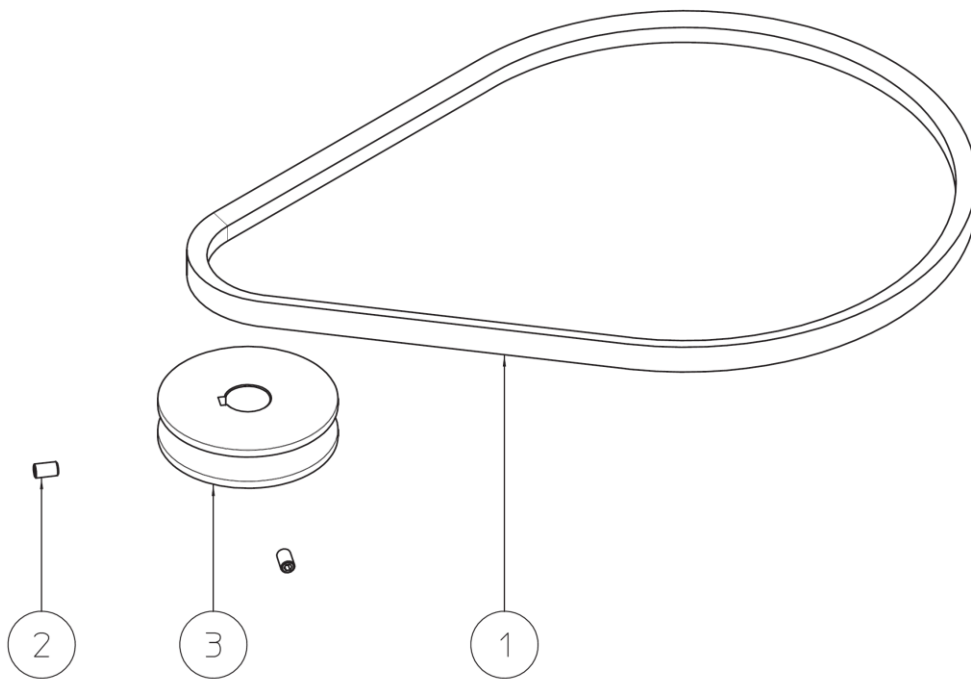
Gruppo carrello eccentrico – Sliding trolley group



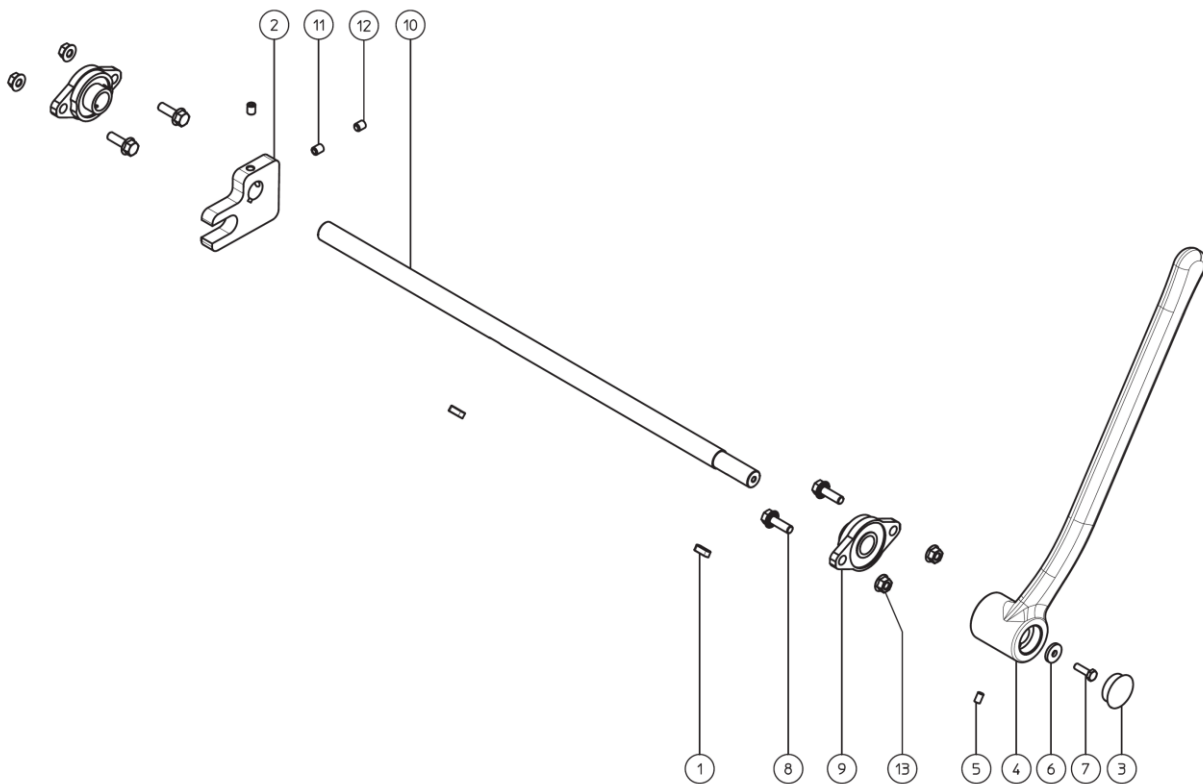
Gruppo motore – Motor group



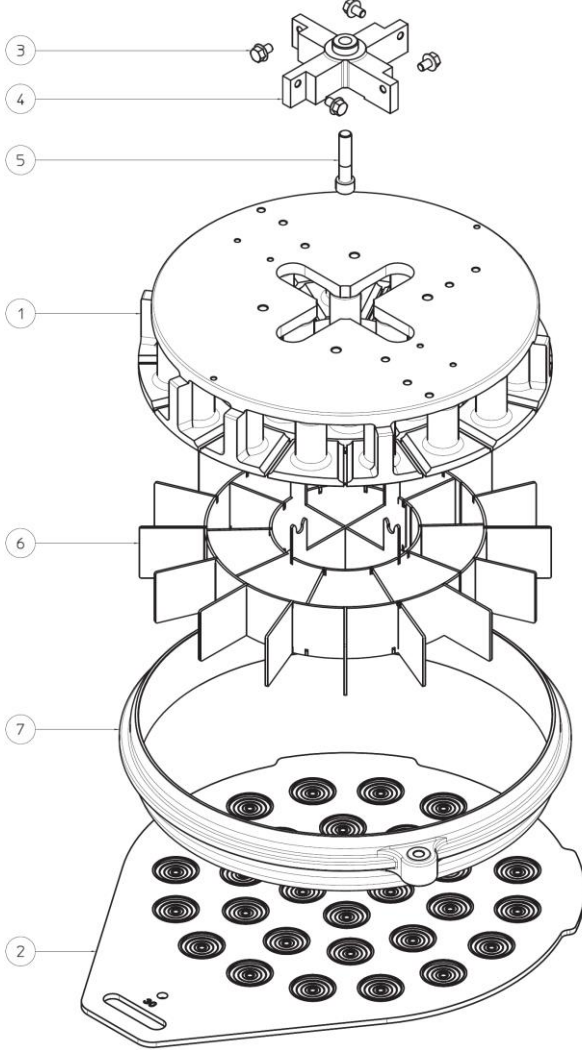
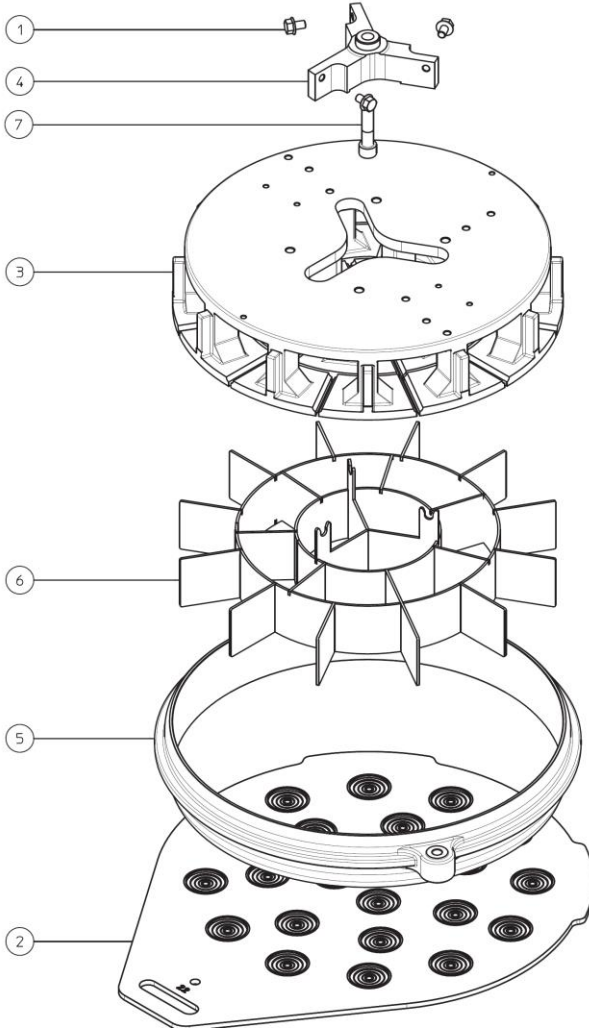
Gruppo puleggia – Pulley group
(specificare frequenza motore – specify motor frequency)



Gruppo azionamento leva arrotondamento –
Rounding lever group



Gruppo taglio – Knife group
(specificare n°divisioni – specify n.divisions)



Gruppo quadro elettrico – Electrical group

