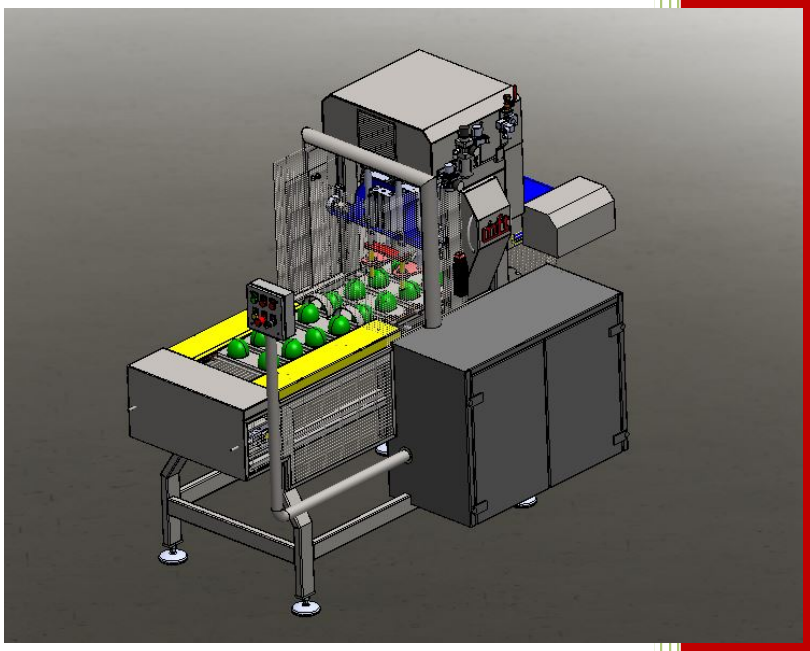
M.F.T. SRL unipersonale
Via Madonna di Fatima, 35
84016 Pagani (SA) – italia

2020

APPLE SLICER



Via Madonna di Fatima, 35
84016 PAGANI (SA) - ITALY

TYPE	Slicer
S.N.	104-20
MODEL	MW-R2
YEAR OF MANUFACTURE	2020

Use and maintenace manual

09/11/2020

DECLARATION OF CONFORMITY
2006/42/CE (Annex II part A)

The undersigned, representing the below identified manufacturer

Name	***Morrone Maurizio***
Address	***Via Madonna di Fatima,35 - 84016 PAGANI (SA) - ITALY***

has commissioned an authorized person to produce and file the technical dossier

Manufacturer	***M.F.T. SRL unipersonale***
Address	***Via Madonna di Fatima,35 - 84016 PAGANI (SA) - ITALY***

The undersigned hereby declares that the machine

Description	***SEGMENTING RING-SLICING CHUNKING AND CORING MACHINE FOR APPLES***
Purpose	***Suitable machine for slicing and coring apples***
Model	***MW-R2***
Type	***SLICER***
S.N.	***104-20***
Year of Manufacture	***2020***

Complies with the requirements of the following modified EC directives

2006/42/EC	***Machinery***
2014/35/UE	***Low voltage***
2004/30/UE	***Electromagnetic compatibility (EMC)***

Machine components coming into contact with food comply with:

CE Regulation n. 1935/2004
CE Regulation n. 2023/2006
UE Regulation n. 10/2011

*The list of the major standards applying is attached to this declaration

PAGANI.....(place).

09-11-2020.....(date).

(signed)

M.F.T. S.r.l.
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P. IVA 0470980 065 2

Legal Representative

Annex: list of standards

A Harmonised standards	
UNI EN ISO 12100 : 2010	*Safety of machinery – General principles for design - Risk assessment and risk reduction*
B Harmonised standards	
UNI EN ISO 13857:2008	*Safety of machinery – Safety distance to prevent danger zones being reached by the upper and lower limbs*
UNI EN ISO 13855:2010	*Safety of machinery. The positioning of protective equipment in respect of approach speeds of parts of the human body*
EN 349:1993+A1:2008	*Safety of machinery – Minimum gaps to avoid crushing of parts of the human body*
EN ISO 13850:2015	*Safety of machinery - emergency Stop - principles for design*
UNI EN ISO 14120:2015	*Safety of machinery – Guards - General requirements for the design and construction of fixed and movable guards*
EN ISO 13849-1:2016	*Safety of machinery - Safety-related parts of control systems - Part 1: General principles for design*
EN 1037:1995+A1:2008	*Safety of machinery - Prevention of unexpected start- up*
UNI EN ISO 14119:2013	*Safety of machinery - Interlocking devices associated with guards - Principles for design and selection.*
EN ISO 14159:2008	*Safety of machinery - Hygiene requirements for the design of machinery*
C Harmonised standards	
EN 1672-2:2005+A1:2009	*Food processing machinery - Basic concepts Hygiene requirements*

PAGANI.....(place).

09-11-2020.....(date).

(signed)

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VIA MADONNA DI FATIMA 35
84016 PAGANI (SA)
P. IVA 0470980 065 2

Legal Representative

CONTENTS

WARRANTY STATEMENT

The manufacturer warrants the equipment, under normal use and regular service, will be free from defects in material and workmanship warranty. The warranty period has a duration of 12 (twelve) months starting on the date stated in the Sales contract for the Equipment described herein, except for the pneumatic, electrical and electronic installation and components. The manufacturer warrants pneumatic, electrical and electronic installation and components, under normal use and regular service, will be free from defects in material and workmanship for a period of 6 (six) months starting on the date stated in the Sales contract for the Equipment described herein. For electrical installation and components, this warranty is void in the event of wrong power supply, lack of or insufficient protection of the power supply line, lack of stabilization and/or power factor correction devices in the power supply installation, lighting, exposure to electric or magnetic fields, power surges. For pneumatic installation and components, this warranty is void in the event of improper or insufficient compressed air supply system with insufficient drying.

The warranties for all equipment, including electrical and pneumatic installations and components, shall not apply to normal maintenance service and it shall also be void in the event of damages caused by misuse, neglect, accident, abuse, failure to follow the Seller's written and oral instructions, improper Equipment use or processing of improper produce other than defined in the "Instructions for Use and Maintenance", wrong adjustments, tampering with, modifications or repairs that were either non-authorized or carried out by anyone other than the Seller; nor does it extend to any damages not arising as a result of manufacturing defects or material flaws.

The Purchaser/User shall notify the manufacturer in writing within 10 days of discovering any material or workmanship defect during the warranty period. The Purchaser's/User's failure to notify the Seller within such a period shall constitute a waiver of the warranty rights, if any, with respect to such defect or failure.

Manufacturer's obligation under the above warranties is limited to the replacement or repair, as manufacturer shall elect, of such parts as manufacturer shall determine are defective. Manufacturer will replace or repair defective parts without charge, with shipment costs at Purchaser's/User's expense. In case repairs of above-identified equipment are to be carried out at manufacturer's factory, all shipment charges shall be at Purchaser's/User's expense. If instead repairs are carried out at Purchaser's/User's factory, all travel, board and lodging charges for manufacturer's technicians shall be at Purchaser's/User's expense while all costs for labour, travel time and replaced components shall be at manufacturer's expense.

The warranty is valid only when the machine is accompanied by the Certificate of Acceptance issued by the manufacturer and indicating: the description of the machine, model, type, serial number, year of manufacturing and the details of the site where the Equipment has been tested.

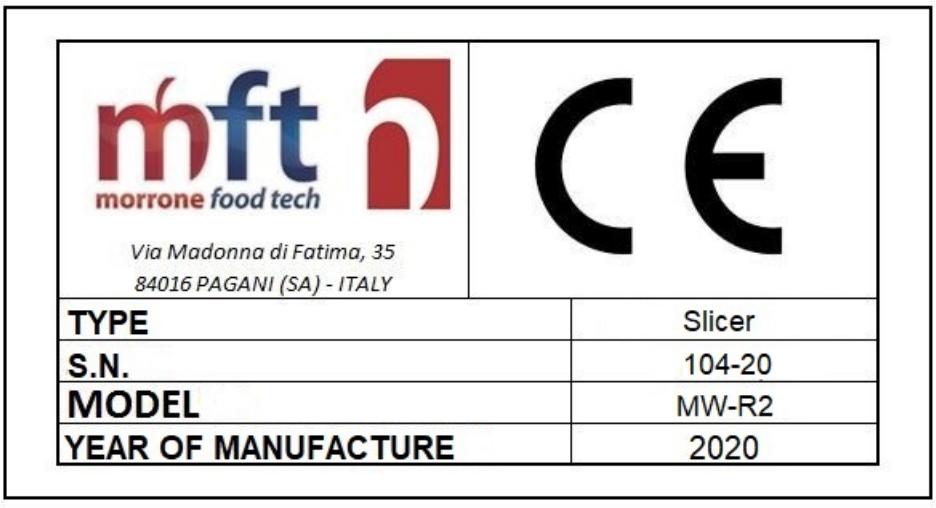
1 CONSISTENCY OF THE SUPPLY

The MW-R2/M ring slicing machine produced by MFT S.r.l. has been designed to core and slice apples. The machine may be used by a single operator and is available in mechanical and electronic advancement versions.

1.1. NOMENCLATURE

Model	Description
MW-R2	Ring slicing/coring/chunking/segmenting machine with mechanical advancement
MW-R2*	Ring slicing/coring/chunking/segmenting machine with mechanical advancement, with selectable "coring only" option
MW-R2/B	Ring slicing/coring machine with electronic advancement
MW-R2B*	Ring slicing/coring machine with electronic advancement, with selectable "coring only" option
MW-R2/M	Ring slicing/coring machine with mechanical advancement and manual loading
MW-R2/M*	Ring slicing/coring machine with mechanical advancement, manual loading and selectable "coring only" option

The machine is provided with an identification plate on which the following data is provided:



2. CONTENT ORGANISATION AND REFERENCE

2.1. PURPOSE OF THE MANUAL

IMPORTANCE OF THE MANUAL

This user manual must be considered an integral part of the machine:

- ✓ must be kept for the whole lifespan of the machine.
- ✓ must accompany the unit in case of its sale.
- ✓ besides providing all the useful information for operators, it also contains (collected in specific chapters) the wiring diagrams that will be used for any maintenance and repair work.

PURPOSE/OBJECTIVE OF THE MANUAL

The User Manual is intended to provide all the necessary information to the customer so that, in addition to suitable use of the machine supplied, the customer is able to manage it as independently and safely as possible. In addition, this manual has been prepared to provide indications and warnings for the user to become familiar with the machine, understand its principles and limits of operation. If you have any doubts consult the Manufacturer

This instruction manual is designed exclusively for users of the machine and contains proprietary information of the manufacturer. The texts, drawings and schematics contained in this instruction manual are technical in nature and the property of the manufacturer of the machine and cannot be reproduced in any manner whether in part or in full.

Without the prior written permission of the manufacturer, this manual or any part thereof may not be reproduced in any form, edited, transcribed, translated into any language, made available to third parties or used in a way that may prejudice the interests of the manufacturer.

RECIPIENTS

This instruction manual, given in 1 copy with the machine, is provided as an integral part thereof, and is for both operators and the professional technicians trained for installation, use and maintenance.

The person in charge of prevention and protection of the customer and the other persons for whom the machine is intended, must take note of these operating instructions in order to take all appropriate technical and organizational measures.

Before starting the machine, and whenever there is a doubt about its operation, the operator is obliged to read the operating instructions carefully.

STORAGE

- ✓ This user manual must be stored in the immediate vicinity of the machine away from liquids, moisture, excessive heat and anything else that may compromise its operation
- ✓ Consult the Manual to avoid completely or partially damaging the contents
- ✓ Do not remove pages from the Manual
- ✓ Do not write on the pages of the Manual

UPDATES, ADDITIONS AND REPLACEMENT

- ✓ If this manual is lost or damaged, another copy of it can be requested from the manufacturer.
- ✓ This manual reflects the state of the art at the time of construction of the machine; the manufacturer reserves the right to update products and consequently further editions of the manual without being obligated to update previous products or manuals, except in special cases concerning health and safety.
- ✓ If the customer wishes to receive further information, they are encouraged to contact the Manufacturer.
- ✓ The customer is requested, in case of the sale of the machine, to send the manufacturer the identification data of the new recipient, to facilitate the transmission of any additions to the manual which, as noted above, must accompany the removable container/dispenser in case of transfer .

2.2. RESPONSIBILITIES

- ✓ If this manual is lost or damaged, another copy of it can be requested from the manufacturer.
- ✓ This manual reflects the state of the art at the time of construction of the machine; the manufacturer reserves the right to update products and consequently further editions of the manual without being obligated to update previous products or manuals, except in special cases concerning health and safety.
- ✓ Pay particular attention to the content of the residual risks present on the machine and to the requirements which apply to operators.
- ✓ The manufacturer is responsible for the machine in its original configuration.
- ✓ The manufacturer is not responsible for damage caused by improper or incorrect use of the machine and documentation or for any damage caused by violation of mandatory rules, negligence, incompetence, carelessness and failure to respect the regulations by the employer, operator or maintainer, and any failure caused by unreasonable, improper and/or incorrect use.
- ✓ The manufacturer is not responsible for the consequences caused by the use of spare parts that are not original or with equivalent characteristics.
- ✓ The manufacturer is responsible only for the information contained in the original Italian-language manual.
- ✓ Failure to comply with the requirements contained in this manual will result in immediate termination of the warranty.

The plant managers who oversee the work activities must, within their respective functions and responsibilities:

- ✓ implement the safety measures foreseen;
- ✓ warn operators of the specific risks they face and make them aware of the basic rules of prevention;
- ✓ provide for and require that the individual operators observe safety rules and use the means of protection provided for them:
- ✓ simultaneously provide more than one operator to work on this device.

It also noted that following the commissioning of the machine, it is subject to the provisions/requirements of Directive 89/655/EEC and subsequent amendments

2.3. EXPLANATION OF SYMBOLS

Here below is clearly specified the meaning of the symbols and definitions that are used in this document.

DANGER

Indicates the presence of a hazard for those working on the machine and bystanders, therefore the indicated activities must be conducted in compliance with the safety regulations and instructions contained in this manual.

CAUTION

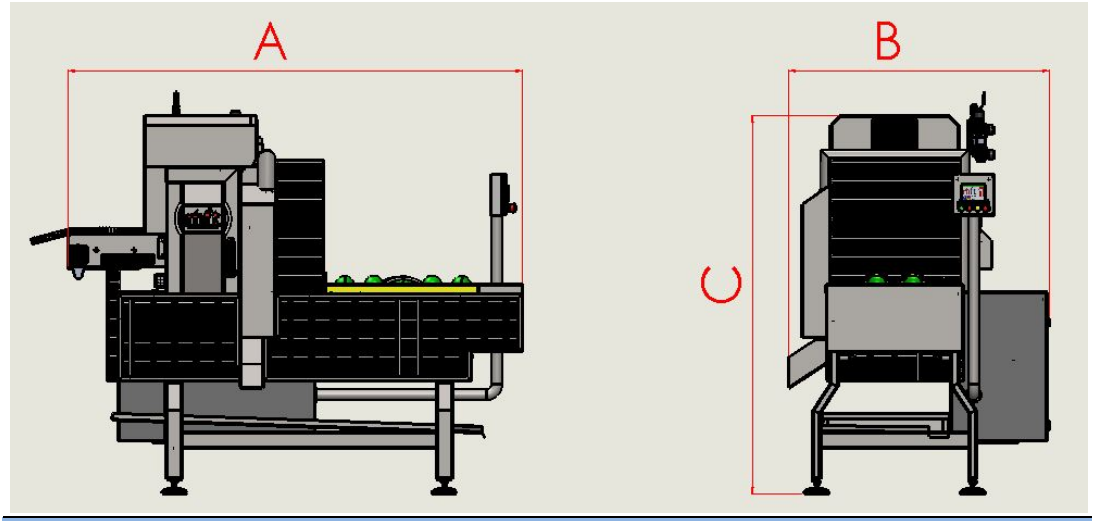
Indicates an alert of useful information and/or additional recommendations and/or tricks for the current operation.

ATTENTION

Indicates an operation to be performed carefully so as to avoid damaging the machine.

3. GENERAL INFORMATION AND FEATURES

3.1. TECHNICAL FEATURES



Model	MW-R2	MW-R2*	MW-R2/B	MW-R2/B*	MW R2/M	MW R2/M*
Capacity	40 fruits/min	40 fruits/min 60 fruits/min coring only	40 fruits/min	40 fruits/min 60 fruits/min coring only	40 fruits/min	40 fruits/min Coring only
Dimensions						
A	2085 mm	2085 mm	2085 mm	2085 mm	2200 mm	2200 mm
B	1077 mm	1077 mm	1110 mm	1110 mm	1265 mm	1265 mm
C	1835 mm	1835 mm	1790 mm	1790 mm	1840 mm	1840 mm
D	4867 mm	4867 mm	4027 mm	4027 mm		
E	1585 mm	1585 mm	683 mm	683 mm		
F	935 mm	935 mm	871 mm	871 mm		
Weight (tank not included)	600 Kg	600 Kg	600 Kg	600 Kg	600 kg	600 kg
Slice discharge belt motor	0.18 kW	0.18 kW	0.18 kW	0.18 kW	0.18 kW	0.18 kW
Disc motor	0.55 kW	0.55 kW	0.55 kW	0.55 kW	0.55 kW	0.55 kW
Main motor	0,55 KW	0,55 KW	1,1 KW	1,5 KW	0,55 KW	0,55 KW
Water circulation pump motor	0,55 KW	0,55 KW	1,5 KW	1,5 KW		
Waste extraction belt motor	/	/	0,18 kW	0,18 kW		

*"**Coring only**" option: machine only performs coring operations.

3.2. SERVICES

The following are the electric power, compressed air, and water consumption necessary for the machine to function correctly. The user must therefore secure the links according to the connections indicated in this chart. The water consumption refers to the spraying nozzles for the slicing group and to the restoration of water in the supply tank. Initial filling of the tank is not considered. The compressed air input is provided with a pressure gauge control and, in case of lack of air, an alarm is shown on the control panel display.

Utility	Consumption		
	MW-R2	MW-R2B	MW-R2/M
Electric power	1,83 kW	3,91 kW	1.3 kW
Compressed air	100 NL/min P=8 bar Quick coupling tube Ø12 mm	100 NL/min P=8 bar Quick coupling tube Ø12 mm	100 NL/min P=8 bar Quick coupling tube Ø12 mm
Water	30 L/min Threaded sleeve connection 1/2"G	30 L/min Threaded sleeve connection 1/2"G	30 L/min Threaded sleeve connection 1/2"G

3.3. TESTING PERFORMED BEFORE DELIVERY

Before delivery, at the manufacturer's site, the machine has undergone all safety tests required by the current and applicable legislation as well as the operational tests according to the intended use as defined in this instruction manual. Furthermore, all installed components undergo careful visual and instrumental control so as to also guarantee conformity with contractual requisites.

3.4. INTENDED USE AND CONSTRUCTION PARTS

The MW-R2/M model ring slicing machine is conceived for slicing and coring apples. The machine is generally composed of the following parts (see enclosed document):

N. 1 - Chassis supporting the motor bodies and the transport and slicing devices
N. 1 - Intermittent motion conveyor belt, composed of plates set transversally in relation to the motion direction, with moulded lodgings (holding cups) for the fruit
N. 1 - Fruit rotation group
N. 1 - Slicing group
N. 1 - Slice discharge conveyor belt
N. 1 - Switchboard
N. 1 - Control button panel

All machine parts intended for contact with food products, the fruit bearing plate and the utensils are in stainless steel materials or in plastic materials designed for contact with edible products.

3.5. NORMAL USE, IMPROPER USE, INCORRECT OR FORBIDDEN USE

The machine is designed to be operated by **two** fully trained persons, the model with manual feeding, or by **one** fully trained person, the model with automatic feeding, who have been informed about the residual risks, and who have the same competences as the maintenance staff as regards safety as well as the professional qualifications mentioned above.

In its **NORMAL USE,** and reasonably foreseeable use, the machine can be used only for halving and pitting peaches.

The machine must not be used **IMPROPERLY;** in particular:

- ✓ the manufacturer declines all responsibility for any use of the machine different from that indicated in this manual,
- ✓ the user is liable for damage resulting from failure to follow operating conditions agreed by the technical specifications and order confirmation,
- ✓ must not tamper with or intentionally damage or remove or hide the labels.

The machine must not be used **INCORRECTLY** or in a manner that is **FORBIDDEN** as it could cause damage or injury to the operator; in particular:

- ✓ it is forbidden to move the machine when it is connected to the power supply;
- ✓ it is forbidden to pull the power supply cable or the machine to disconnect the power plug,
- ✓ it is forbidden to put weight on the power supply cable,
- ✓ it is forbidden to place the power supply cable on sharp edges or in a situation where there is danger of burning,
- ✓ it is forbidden to use the machine with the power supply cable or the control devices damaged and not intact;
- ✓ it is forbidden to leave the loaded machine unattended;
- ✓ it is forbidden to use flammable, corrosive or harmful substances for cleaning,
- ✓ it is forbidden to employ unauthorized personnel and to use clothing other than that indicated for use,
- ✓ it is forbidden to introduce products or articles having characteristics different from those indicated in normal use, such as e.g. non-food products
- ✓ it is forbidden to operate with safety protections and guards not properly locked or removed;
- ✓ the partial or total neutralization, removal, modification or in any way rendering ineffective of the protections is forbidden
- ✓ it is forbidden to operate without the user taking all the appropriate measures regarding the elimination of residual risks,
- ✓ it is forbidden to smoke or use open-flame devices and handle incandescent materials, unless the proper safety measures have been taken,
- ✓ it is prohibited to use substances hazardous to the health of the operator and maintenance personnel.

The user is however fully liable for damage resulting from failure to observe the normal operating conditions specified. If you have any questions, please contact the manufacturer.

4. SAFETY INSTRUCTION

Failure to adhere to the safety rules and procedures can lead to hazards and even damage. It should be understood that use of the machine is subject to the final user adhering to:

- all the rules regarding machine set-up and people's behavior in the vicinity of the machine as laid down by the applicable laws and/or regulations, with reference in particular to the apparatus attached upstream of the machine for the purpose of connecting it to the utilities/running it;
- all the other instructions and warnings regarding use of the machine forming part of the technical/graphic documentation attached to the actual machine.

4.1. OBLIGATIONS AND DUTIES

FENERAL REQUIREMENTS FOR THE STAFF

The staff that interacts with the machine must:

- have read and understood all safety instructions contained in the user manual;
- be in normal physical and mental condition;
- be informed and trained, in advance, about:
- the dangers of injury or other damage that may result from direct or indirect contact;
- hazards caused by overheating, electrical arcs or radiation produced and/or emitted from any electrical equipment present;
- the non-electric dangers which, as experience shows, can be derived from any electrical equipment present;
- the dangers of injury or other damage resulting from the residual risks indicated in the instructions for use;
- they therefore have (or acquire through appropriate training), the following requirements:
- general and technical education at a level sufficient to understand the contents of this user manual
- and correctly interpret all technical drawings;
- knowledge of the principal rules of hygiene, safety and technology;
- overall knowledge of the machine and electrical equipment that may be present;
- know how to behave in an emergency;
- know where to find the personal protective equipment and how to use it correctly if prescribed by the manufacturer's specifications if the collective protections are insufficient;
- they must also:
- immediately report to the employer the deficiencies of the devices and means of safety and
- protection, as well as any other dangerous conditions of which they are aware, by working directly, in the case of emergency, and within their competence and ability to eliminate or reduce these deficiencies or hazards;
- must not remove or modify the devices or other means of safety and protection without first obtaining permission;
- not perform, at its own initiative, operations or maneuvers that are not their responsibility and that can compromise their own safety or that of others:
- not wear rings, watches, jewelry, torn clothing, scarves, ties, or any other garment or accessory that could be a source of risk; properly tighten the sleeves around the wrists, and always keep hair well collected.

Except where specified otherwise, **the personnel performing the tasks of installation, connection, maintenance, reuse, and reinstallation, troubleshooting of problems or failures, demolition and dismantling** must be an **expert staff member** trained in safety and informed on the residual risks, with the safety skills of the maintenance personnel.

All specific skills, tasks and dangerous areas within which the operator and maintenance staff are required intervene in performing the functions of this manual, are shown in the following chapters.

This expert personnel must be able to evaluate the work assigned to them and recognize the potential dangers on the basis of their training, knowledge and professional experience and their knowledge of the machine, related equipment and related regulations; they must also be in possession of adequate professional qualifications for the machine in question. They must be trained in safety issues and informed on the residual risks.

They must also **be highly trained and experienced,** that is, a graduate from a technical school or university with technical knowledge regarding the machine, its related equipment and related legislation, and must have a particular technical field of expertise or training.

In addition to **performing all maintenance work**, they must also in some cases support the operator with certain tooling activities. The maintainer can also access the electrical cabinet with the equipment under voltage.

For safety reasons, during machining operations, in the area surrounding the machine, the presence of persons other than the operator is prohibited. As an exception to this requirement the maintenance personnel is allowed if expressly authorized by the production manager.

The personnel assigned to adjustment/registration, use and maintenance activities must immediately suspend the activities and inform the employer or the department manager when they find defects or malfunctions.

In case **the user does not have experienced or highly trained staff available,** the activities in question must be commissioned to a company that is competent for this purpose, such as for example, the supplier of the same.

4.2. ENVIRONMENTS AND WORKPLACES

The working environment must meet the requirements of Directive 89/654/EEC. In the work area there must be no foreign objects present.
The employer, in compliance with Directive 89/391/EEC on the introduction of measures to encourage improvements in the safety and health of workers at work, must proceed to correct or reduce the residual risks identified as provided for in this manual.
manuale.

4.3. WARNING RELATED TO RESIDUAL RISKS

The employer must educate staff about the risks of injury, safety devices and the general rules regarding accident prevention foreseen by EU directives and legislation of the country where the machine is installed. It is therefore necessary that **the use, maintenance conducted by the user, and the cleaning** be handled by trained and competent personnel.
It is the employer's responsibility to ensure that the given instructions have been properly implemented. When necessary, **it is also the responsibility of the user to:**

- take a training/education course, possibly in cooperation with the manufacturer of the machine, **so that operators and maintenance personnel** are adequately educated about the risks in general and the residual risks indicated in this manual
- the **provision of personal protective equipment** conforming to the requirements of the Directive 89/656/EEC and subsequent amendments and updates **and information on permitted uses.**

RESIDUAL RISKS DUE TO NOISE

The machine produces, as demonstrated in experimental tests performed, **a continuous sound level equal to weighted noise A less than 85 dB.**
To avoid the dangers of injury to the ears due to piercing or persistent noise, during operation of the machine, the operator, in addition to being properly informed and trained, **must always use appropriate ear protection devices, such as headphones or protective caps or** similar **personal hearing protectors.**

RESIDUAL RISKS DUE TO FLAMMABILITY

To avoid the dangers arising from a fire, the user, in addition to adequately training and informing the operator and maintenance staff, must also provide suitable **fire protection systems** (e.g. first-aid portable fire extinguishers) **close to the workplace of the machine,** adapted to the types of materials that can ignite: such as for example electrical equipment. Water must not be used to extinguish fires.

RESIDUAL RISKS DUE TUO SAFETY-RELATED COMMAND/CONTROL SYSTEM

From the activation of the machine stop command or the absence of electricity supply, both the operator and the maintainer, **before accessing moving parts, must ensure that they have actually stopped.**

RESIDUAL RISKS DUE TO THE REMOVAL OF THE FOXED GUARDS, INTERVENTIONS ON BROKEN/WORN PARTS

The operator must never in any case try to open or remove a fixed guard or tamper with a safety device.
During the tooling, maintenance, and cleaning phase and during all subsequent manual operations that take place with the introduction of hands or other body parts in hazardous areas of the machine, there is residual risk primarily due to:

- collisions with constructional parts of the machine,
- cutting with sharp parts of utensils.

As well as being properly informed and trained, whenever performing the operations described above the operator and maintainer **must use protective devices for hands and feet, and clothing that is suitable for the workplace, such as cut-resistant gloves with metal fibres, and non-slip footwear that is durable and suitable for the particular nature of the hazard, with steel toes.**
Furthermore, operators and maintainers **must be trained for interventions related to manual operations with open guards**, and must be educated on the consequent risks, and must be authorised by the person responsible.

RESIDUAL RISK DUE TO LIFTING OPERATIONS AND OPERATIONS WHICH REQUIRE MANUAL INTERVENTION

Operations to lift and transport parts of the machinery are manual operations which involve a residual risk, above all due to impact, crushing, dragging, grazing or abrasion. The machine movement/transport manager has the duty to adequately inform staff about these residual risks.
There is also a residual risk of impact, abrasion, cutting, piercing and grazing during maintenance, cleaning and other manual operations, for both machine operators and maintenance staff, due in part to the need to remove and/or replace parts of the machinery and accessories.
The staff assigned to transporting the machinery or its component parts, machine operators and maintenance staff must all not only be adequately informed about and trained to adhere to the protocols for using the machinery, but also wear personal protective equipment (PPE) on their hands and feet, as well as suitable clothing for their work environment, such as: hard hats, cut-resistant gloves with metal fibres, hardwearing steel-toe-capped footwear with non-slip soles suitable for the specific risks entailed.

4.4. PICTOGRAMS

The plates and signs must always be clearly visible and must never be removed.
The plates and signs are a safety tool and must not be overlooked.
The user is required to immediately replace all safety and/or warning signs that may become unreadable due to wear.
Below is the list and the meaning of the plates present:

RISK OF SHEARING AND CUTTING

HIGH VOLTAGE DANGER

LUBRICATION PROHIBITED WHEN PARTS ARE IN MOTION AND GUARD REMOVAL PROHIBITED

4.5. PROTECTION DEVICES ON THE MACHINE

The machine's protections and safety devices must not be removed

If these require removal due to non-routine maintenance requirements **measures will immediately be taken to highlight and reduce related danger to the minimum possible level.**

The protection or the safety device's return to position and to efficiency must be completed as soon as the reasons that required their temporary removal have ceased to be.

The coring and slicing work area is protected with a steel cover, with openings sized according to the EN 294; these openings allow inspection of the coring and slicing group in safety conditions. Furthermore, the inspection doors for the slicing group, which is composed of two rotating discs, are provided with an electric safety device, preventing the removal of protections while the machine is operational. This protection will unblock automatically some seconds after the machine is stopped, to ensure that the discs do not pose a threat to the operator, as they are still rotating.

Please keep in mind that spaces are present which are necessary for the conveyance of apples towards the slicing group; without these spaces the machine's operation would be compromised, making it strictly forbidden to introduce hands or other body parts into said areas, to avoid the risk of shearing and slicing. Other interlockings are located on the left and right side areas of the conveyor belt which carries the fruit towards the coring and slicing area. This conveyor belt is protected in its sides with two casings provided with safety switches. If the casings should be opened while machine is operational, two specific safety switches will activate. The transmission components located on the side part are instead only reachable with the removal of the fixed protections.

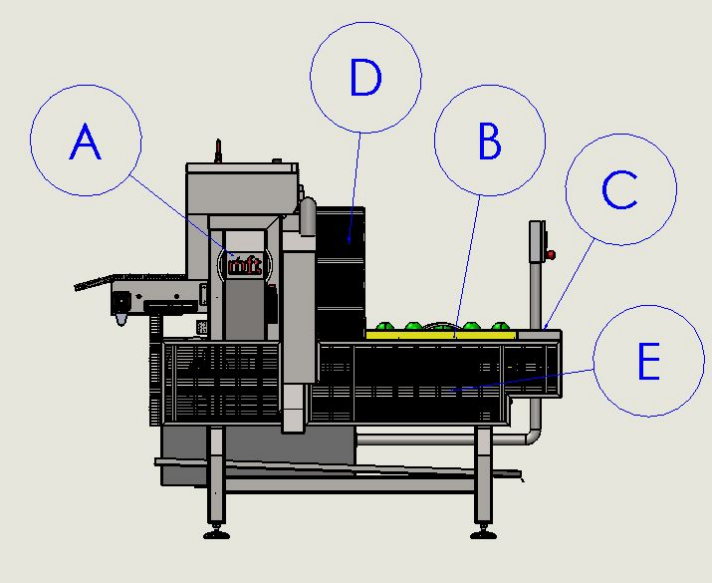


Fig. 1 Covers and protections installed on the machine

TYPE - POSITION	TYPE OF DANGER SAFEGUARDED
Mobile cover **(B)**	Steel plate mobile covers, at least 2 mm wide and provided with magnetic safety switches, are present on the left and right-side areas, to avoid contact with the movement transmission components.
Fixed cover **(D)**	A steel cover with openings is present in the coring and slicing area, to avoid contact with the cutting utensils.
Fixed cover **(C)**	To avoid contact with the movement transmission components, the hind part of the machine is provided with a fixed cover.
Mobile cover **(A)**	Mobile covers provided with electric locking systems are present in the coring and slicing area on the left and right sides of the machine, to avoid contact with the cutting utensils.
Fixed cover **(E)**	To avoid contact with the movement transmission components, fixed covers with openings are present on the left and right-side areas.

As regards **fixed guards it is also specified** that:

- the size of the fixed guards are such as to leave no openings in the protected hazardous work area when they are set in place;
- the fixed guards that are not permanently welded to the machine are secured with screws that require the use of special keys (Allen keys) and can be removed, with the appropriate key, exclusively by those responsible for the maintenance;
- access to spaces protected by a fixed guard is allowed only to the maintainer. The operator must never in any case try to open a fixed guard;
- it is not possible to refit a guard in the wrong position such as to leave dangerous openings in the fairing;
- If the guards are not fixed in their seat with the special screws, they cannot remain ostensibly closed and supported in their seat in the absence of fastening elements.
- For all the **safety functions** comprising the parts of the control systems, well-tested components and principles of safety have been used.

5. TRANSPORT, SETTING UP AND USAGE

Management of the machine is allowed only to authorized personnel that is properly trained and has sufficient technical expertise.
The staff assigned to running the machine must be aware that the knowledge and application of safety standards is an integral part of their work.
Unqualified personnel must not have access to work when the machine is being used.
Before starting the machine, carry out the following steps:

- carefully read the technical documentation,
- know which protections and emergency equipment are available on the machine, their location and their operation.

Unauthorized use of the commercial parts and accessories making up part of the guards and safety devices can cause the occurrence of faults and dangerous situations for the operating personnel.
The operator must also have received adequate training.

5.1. WORK STATION AND OPERATOR TASKS

The machine is designed to be used by **one or two operators** (depending on whether the machine is equipped or not with automatic feeding system) who have been trained and instructed on the residual risks, but with the expertise, in terms of safety, of maintenance personnel and with the professionalism as previously indicated.
The operator must be a competent individual, i.e. the designated person, who is properly trained and qualified with knowledge and practical experience and provided with the necessary instructions to ensure that the required tasks are performed in safe conditions.
The operator's normal work zone is the hind and side area of the machine.
The operator is tasked with a visual inspection of proper machine operation, and with loading the fruit in the correct direction (with the stalk pointing downwards) before it enters the coring area (in case the machine is not equipped with automatic feeding system).
Furthermore, the operator must supervise the functioning and operation of the machine, with special attention to the machine's alarms and to unusual sounds or functions.
The operator is responsible for the processing and has the task of controlling the machine using the control actuators located in the control panel.
In addition to ordinary operation of the machine, **the operator is tasked with starting and stopping the machine** in normal conditions and with stopping it in emergency conditions.
The operator is also responsible for verification operations; these operations are easily performed in safety conditions, and clearly described in the following paragraphs.
Furthermore, the operator is also tasked with general surveillance of the machine operation; in case of necessity, they must not intervene but instead activate the maintenance service.
The operator also **performs cleaning of external parts** of the machine, of internal areas, of the utensils and of any other part that may require cleaning, with the machine unpowered and with emergency mode on, at the end of each use or in any case before any new usage. **Cleaning of internal parts, which involves removal of fixed covers, is entrusted to the maintainer.**

5.2. TRANSPORT, MOVING AND STORAGE

All transport and handling operations must be performed **by properly trained** and **informed staff, who must have read and understood** the safety instructions in this user instruction manual.

It is necessary to:

- always perform the handling and transport of the machine when it is unloaded;
- verify that the lifting appliances are capable of withstanding the weight and bulk of the load safely and that they are of the approved type and regularly serviced,
- take all necessary measures to ensure maximum stability of the means and loads in relation to their masses and centres of gravity,
- avoid subjecting the machine to sudden shocks or accidental collisions while moving and unloading,
- perform the movement with continuous motion without repeated jerking or jolts.

STORAGE

The machine intended for installation indoors, in the case of storage, must be stored in the warehouse, in ventilated areas, away from dust. The machine intended for installation indoors, in the case of storage, must be stored in the warehouse, in ventilated areas, away from dust. The delivered machine must remain packaged until final installation in the location of deployment.
In the case of **prolonged inactivity**, the machine must be stored with appropriate precautions for the site and time of storage:
1. Store the machine in a confined space;
2. Protect the machine from shocks and stresses;
3. Protect the machine from moisture and excessive temperature fluctuations (refer to table below);
4. Prevent the machine from coming in contact with corrosive substances.

The machine is designed to withstand temperatures, humidity and vibration during transport and storage.

Room temperature	-25 / +40 °C (if the electrical material has a degree of protection of at least IP54)	Avoid places where sudden changes in temperature occur which can cause condensation or freezing
	0 / +40 °C (if the electrical material has a degree of protection lower than IP54)	
Storage Temperature	-25/+55 °C (if the electrical material has a degree of protection of at least IP54)	
	0 / +55 °C (if the electrical material has a degree of protection lower than IP54)	
Relative humidity	100% at a temperature of +25 °C (if the electrical material has a degree of protection of at least IP54)	
	Less than 50% at temperature of +40 °C Less than 90% at temperature of +20 °C (if the electrical material has a degree of protection lower than IP54)	

The storage temperature is understood **as values in the short term** such as e.g. transportation. Condensation or freezing normally occur in places where temperature fluctuations are high. Even if the relative humidity in such cases may fall within the values indicated in the table, it is necessary to avoid such places.

CONTROLS UPON ARRIVAL

It is essential to carry out a **proper control of packages upon arrival**, at the very moment of receiving them. This control is performed in two stages for each package received, so as to avoid any possible coordination error by the carrier.

Administrative verification

- Number of packages;
- Weight and size;
- Correspondence between information in transport document and objects delivered (description, serial numbers, etc.)
- Technical data on machine identification plate must correspond to those indicated in the delivered technical documentation;
- Data on transport document must correspond to the order performed.

Technical verification

- Condition and integrity of packaging.
- Packaging must have undergone no visible damage during transport and handling operations.
- In case of damage or incomplete or incorrect delivery, report the fact directly to the manufacturer's commercial office.

As described above, the manufacturer reminds the user that, under applicable international and national standards, the goods always travel at the latter's own risk and, unless otherwise signed during the order confirmation, the goods do not travel insured.

TRANSPORT AND MOVING

Machine transport can be performed using a container or a long-haul vehicle. In both cases the same type of packaging is expected. **Handling and transport** must be performed **FROM BELOW** making use of lifting gear, with a forklift truck weighing no less than 30 quintals (100 kg), with forks that must be placed underneath the base as indicated in figures *2 and 3.*

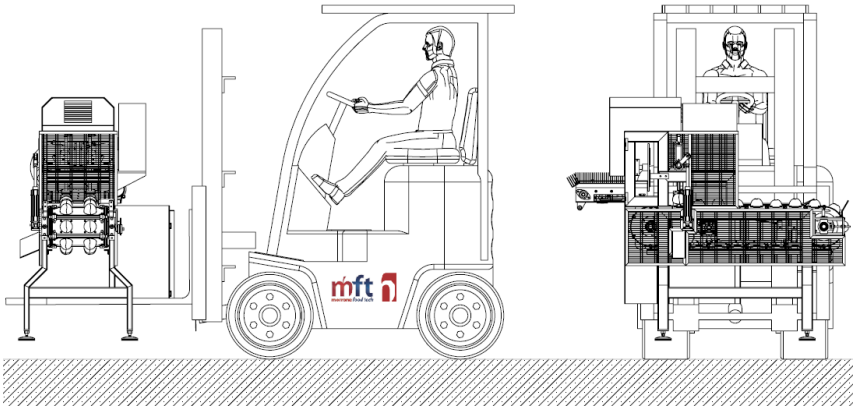


Figure 2 MW-R2 or MW-R2/M machine lifting

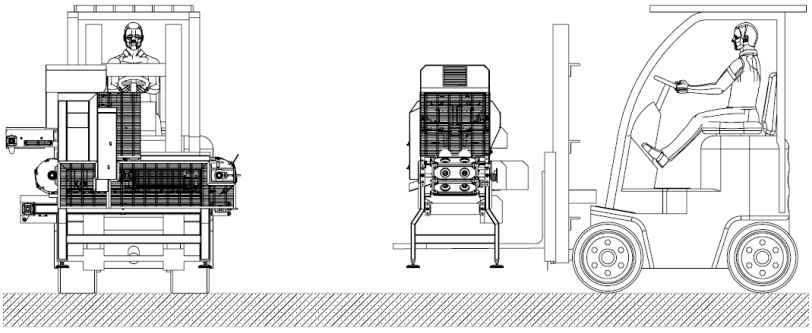


Figure 3 Lifting machine MW-R2B

During handling **load must be kept at the lowest possible height from the ground** to overcome any eventual obstacles; this is both for greater stability of the load itself and for greater visibility.
If the load does not allow sufficient visibility of the ground, **a second person is required on the ground**.
For the purpose of stability, the machine **must remain standing** regardless of shape and morphology.
The machine must be transported as close as possible to the location intended for use, which will have previously been checked for size and for space requirements.
In case of later handling, verify in advance that all eventual components, or groups and subgroups, that may be subject to shifting during handling are securely fastened (using sealing systems), avoiding dangerous movements that may compromise the stability and balance of the load, accidental falling parts, or possible toppling over.

5.3. REMOVAL OF PACKAGING – HOW TO OPEN

DESCRIPTION OF PACKAGING - HOW TO DISPOSE OF PACKAGING MATERIAL

The machines are packaged so as to avoid the infiltration/penetration of liquids, organic matter or living creatures: this is represented by a polyethylene coating around the machine.
Do not dispose of the packaging material in the environment, but save it for any future transport or send it to recycling agencies.
The assessment and management for the compatibility of biological products used in packaging, are the responsibility and liability of the user.
The employer is obliged to be aware of the laws in force in its own country and take steps to comply with these laws.
It is also prohibited and punishable by penalties to abandon the machine and the electrical equipment in the environment.

5.4. PRELIMINARY PREPARATION TASKS

STABILITY

The stability of the machine is designed such that, under the intended operating conditions, it allows for use without risk of overturning, falling or unexpected movement.
Given the conformation and its position, the machine is inherently stable without needing to be fixed to the floor

POWER SUPPLY

The power supply system located upstream of the control machine must be designed, installed and maintained in accordance with all applicable requirements of the safety rules for "low voltage user systems" according to IEC3644 / HD384 / CEI 64-8 (latest editions).
With regard to the electrical distribution system of the power supply to the machine, it must be totally compliant to one of the harmonized TT or TN systems according to IEC364_4_41/HD382_4_41/IEC 64.8 (4_41) (latest editions).
As part of the requirements - information given above, the respective ground system must be in full conformity with the applicable requirements for coordination with the associated active devices, according to IEC364-5-54 / HD382-5-54 / CEI 64.8 (5-54) (latest editions).

POWER SUPPLY

The connection of the power supply must be in conformity with **relevant legislation of the country in which it is used.**
The power supply must therefore be maintained in accordance with the following technical requirements:

- **the power supply** must always be of the type and intensity corresponding to the specifications indicated on the plate of the machine. If excessive voltages are applied, components will be irreparably damaged,
- **there must be a differential device** coordinated with the protection circuit, respecting the law and the legal prescriptions and regulations in force in the country of installation;
- **the electrical power cable to the outside of the casing of the machine**, must be made to pass through the spaces you have prepared, which must also be suitably protected;
- **if the neutral conductor (N)** is **present**, before supplying the electrical equipment, you must guarantee its continuity (attached and available).
- before energizing the electrical equipment, you must guarantee the continuity (connected and available) of the green-yellow conductor of the protective bonding circuit.

STORAGE PROTECTION DEVICE

The equipment is designed to withstand a **symmetrical short-circuit current of short duration not exceeding 6kA.** If the prospective allowable rated conditional short-circuit current, in the installation site, proves to be greater than the value given, it must be adequately limited.
Since in the electrical equipment provided for the command and control of the machine, there are not embedded any electronic circuits that operate in DC, it is recommended to take adequate measures to ensure protection against indirect contacts: for the purposes of protection against the automatic disconnection of the, supply provide for **APPROPRIATE DIFFERENTIAL DEVICES.** The differential device must be of the type that is highly resistant against pulse, atmospheric and manoeuvre overvoltage (see EN 61008-1 latest editions).
It is also specified that:

- ✓ The power supply device, on top of the electrical cabinet, must be protected against short circuits with a protection device having a rated current not exceeding the specifications,
- ✓ upstream of the power supply cable of the electrical equipment the overcurrent protective device must be installed and maintained in accordance with the requirements of the technical regulations.

6. INSTALLATION

6.1. MACHINE INSTALLATION

The MW-R2 slicer has been carefully tested and inspected before delivery to the client; it has been equipped with the format specified in the order, and therefore no adjustments of any kind are required.

- Position machine ensuring it is perfectly on level;
- Before starting work, ensure that all dust or dirt which may have gathered during transport is removed;
- Grease all lubrication points as described in the “LUBRICATION” chapter;
- Connect machine to power network ensuring that the grid voltage corresponds to the machine’s required voltage;
- Ensure that the direction of motor rotation corresponds to the direction of the arrow located on the motor fan cover;
- Perform an accurate inspection of the machine to ensure that no extraneous objects have remained within;
- Connect machine to compressed air line;
- Connect machine to water supply.

7. DEVICES AND CONTROL FUNCTIONS

7.1. ELECTRICAL MAIBOARD

Fig. 4 Mainboard

7.2. PUSH-BUTTON PANEL

The control push-button panel (Fig. 5) installed on the side of the machine and allows the operator to control and monitor the machine's operation.

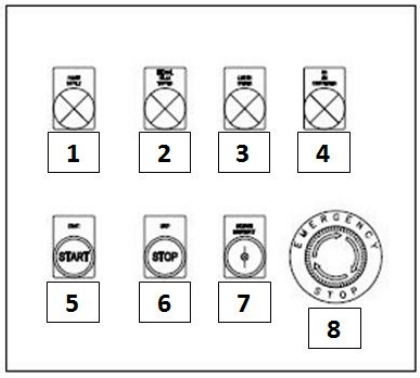


Fig. 5 Control push-button panel

CONTROL	CONTROL / REGULATOR	ACTION	POSITION
A	**GENERAL INTERLOCK SWITCH** *(GENERAL INTERRUPTER)*	(I) POWER / (O) DISCONNECTION	ELECTRIC PANEL
		PREVENTS OPENING CONTROL PANEL DOOR IN CASE OF POWER BEING ON	
1	**WHITE CONTROL LIGHT** (POWER ON)	PREVENTS OPENING CONTROL PANEL DOOR IN CASE OF POWER BEING ON	PUSH-BUTTON PANEL
2	**ORANGE CONTROL LIGHT** (THERMAL ARREST)	INDICATES STOPPED MACHINE DUE TO ROTATING DRUM MOTOR OVERLOAD	PUSH-BUTTON PANEL
3	**RED CONTROL LIGHT** (GUARDS OPEN)	INDICATES THAT MACHINE COVERS HAVE BEEN LEFT OPEN	PUSH-BUTTON PANEL
4	**RED CONTROL LIGHT** (NO AIR)	INDICATES LACK OF COMPRESSED AIR IN CIRCUIT	PUSH-BUTTON PANEL
5	**START UP BUTTON WITH GREEN CONTROL LIGHT** (START)	ACTIVATES MACHINE MOVEMENT AND SIGNALS THAT MACHINE IS OPERATING	PUSH-BUTTON PANEL
6	**OFF BUTTON** (STOP)	STOPS MACHINE MOVEMENT	PUSH-BUTTON PANEL
7	**EMERGENCY REFRESH BUTTON WITH RED CONTROL LIGHT** (EMERGENCE REFRESH)	ALLOWS TO RESET ALL EMERGENCY INDICATIONS AND PREPARES MACHINE TO BE RESTARTED	PUSH-BUTTON PANEL
8	**MUSHROOM PUSH-BUTTON** (STOP EMERGENCY)	STOPS MACHINE IN EMERGENCY CONDITIONS	PUSH-BUTTON PANEL

7.3. START-UP

The machine's start-up is possible only with a voluntary action on the specific control device.

TYPE OF ACTIVATION	ACTION	CONFIRMATION
Activation when machine is turned off	Set main switch **"A"** on (I) position	Power line indicator **"1"** lights up in white
	Proceed to resetting eventual alarms as indicated in paragraph **5.6.2**	
	Press activation button **"5"** (START)	Lighted button **"5"** goes from flashing to a fixed green light
Activation when machine power is on	To restart machine after work has been suspended, press the activation button **"5"** (START)	
Activation from machine emergency situation (after emergency stop button has been pressed)	Reactivate Emergency Stop Button **"8"** rotating it clockwise, then push emergency recovery button **"7"** and then activation button **"5"** (START)	
Activation from machine emergency situation (for example when thermal protection is active)	Turn machine off, and once it has cooled down the following operations are necessary:	
	Set main switch **"A"** on the (I) position	
	Press activation button **"5"** (START);	

8. DESCRIPTION OF OPERATION

CONTROLS AND VERIFICATIONS BEFORE ACTIVATION

VERIFICATION / CONTROL	METHODS AND FINDINGS
Ensure that: ✓ There are no foreign objects on the machine	Visual inspection of the parts indicated, to ensure that there are no foreign objects or bodies e.g. various tools, rags, etc... If these are present, have them removed.
Ensure the cleanliness: ✓ of the internal parts such as plates and utensils such that they are completely free of any manufacturing residue (leaves, pulp, skin) ✓ of the outer surface of the machine	All surfaces of the parts indicated, before using the machine, must be visually inspected to ensure their cleanliness. In the presence of mould or other type of dirt, perform the cleaning procedure as directed in the chapter "CLEANING"
Ensure the integrity: ✓ of the fixed guards, ✓ of the body of the machine	All fixed guards must perform the function for which they have been provided. Visual inspection of the parts indicated to ensure their integrity on the outside of their surface. The parts must be replaced at the first signs of erosion or breakage.
Ensure the functionality: ✓ of the parts of the command/control system relating to safety; ✓ of the control devices.	All the devices must perform the function for which they have been provided. Command the devices directly so that they control the expected function. The actuators and all parts must however be replaced at the first signs of erosion or rupture.
Check that there is no: ✓ strange noise after starting up	During the verification of the functionality of the control devices, if there is unusual noise, e.g. due to mechanical failures, immediately stop the machine, and activate the maintenance service.
Grease all lubrication points manually	See the chapter "LUBRICATION"

- For any type of intervention or the replacement of parts that are damaged, activate the maintenance service. Any replacement must take place with the original products of the manufacturer.

9. MACHINE START-UP

Once the operator has obtained positive results from the controls intended to ascertain full respect of all safety conditions and of all verifications seen in the previous section, the machine can be started

Ring slicer MW-R2 can be tooled up to perform the following functions:

1. Ring slicing and coring
2. Chunking and coring
3. Segmenting and coring

According to the functions requested by the Purchaser the machine can also

4. Core without slicing
5. Slice without coring

In the latter case:
By selecting function **1,** apples are cored and then cut into rings with adjustable thickness.
Bu selecting function **2** instead, apples are only cut into rings with adjustable thickness.

Coring tubes with various diameters are available, the diameter of the coring tube should be selected according to the desired diameter of the cores you wish to remove.
Once the machine has been configured correctly, the desired slice thickness is selected in a range between 2 mm and 10 mm, and the distance between the blades and the counter-rotating discs is regulated accordingly. The number of segments can also be varied by replacing the segmenting-dies with appropriate number. The segmenting dies must also be replaced to fit the size of fruit being processed.
You may now start the slicing process as follows:

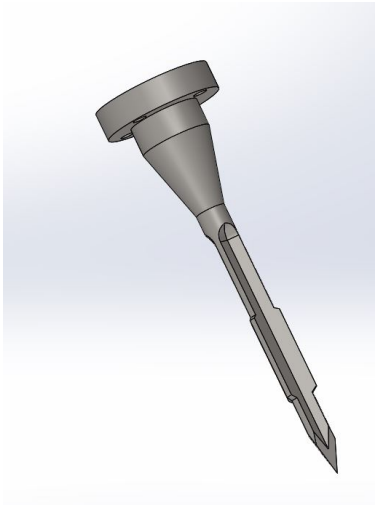
- Fruit is fed onto the machine either manually or automatically through the automatic feeding system, according to the purchased model, and positioned into their lodgings (holding cups). If the automatic orienting system function is not included with your unit, you should also make sure that fruit is positioned correctly on the conveyor, that is to say with the stem-flower axis perpendicular to the conveyor and possibly with the stem end upwards
- If the collecting conveyor is not included with your unit, provide for collecting containers for the slices and the removed cores.

All machine parts intended for contact with food products are in stainless steel or food-grade plastic.

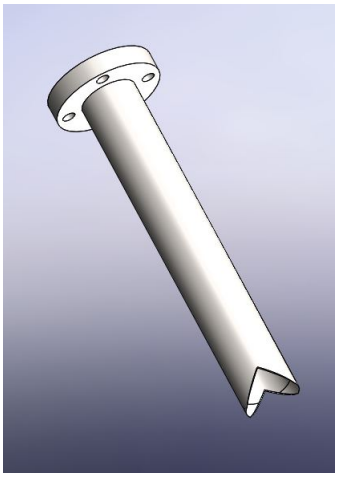
10. TOOLKIT CHANGE

According to the functions included with the unit, the machine may be provided with two different fruit picking tools:

SPIKES



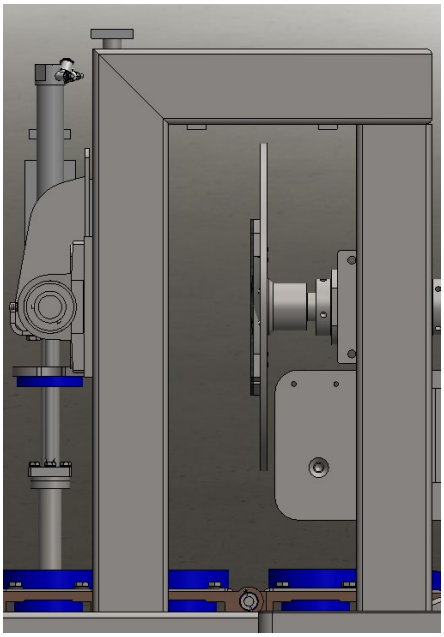
CORING TUBES



Coring tubes vary according to the desired diameter of the cores you wish to remove and are customizable. CHANGE OF CORING TUBE

To replace the coring tubes follow instructions below:

- ✓ Stop the picking/ring slicing unit in the position shown in the below picture



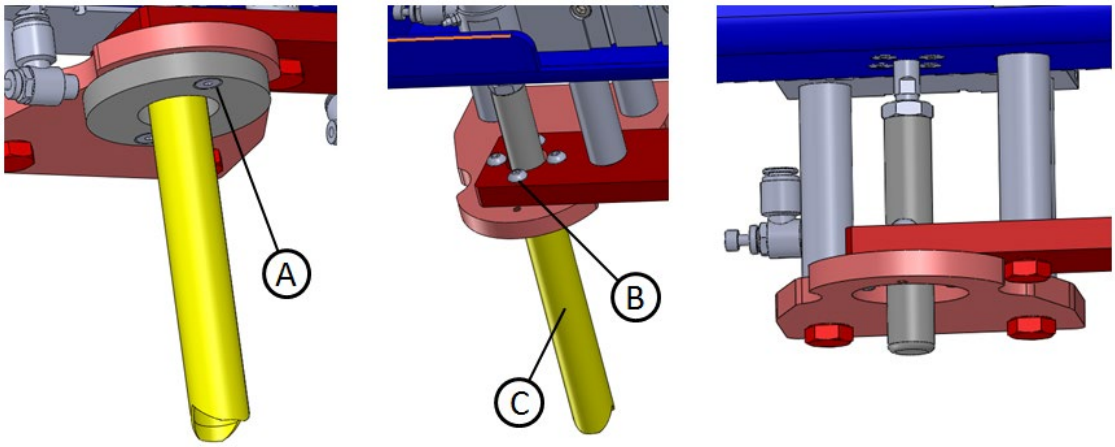


Fig. 1 Replacing the coring tubeS

WARNING

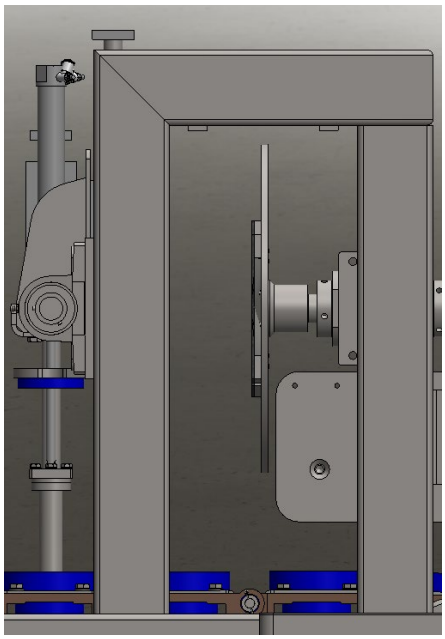
BEFORE REPLACING THE TUBE ENSURE THAT MACHINE IS DISCONNECTED FROM COMPRESSED AIR NETWORK AND THAT CORING TUBES ARE IN A VERTICAL POSITION.

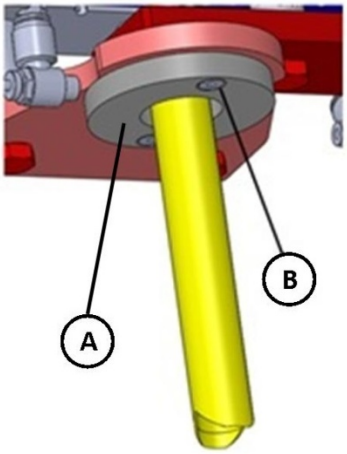
- ✓ Disconnect the machine from power supply and compressed air supply;
- ✓ Remove the 2 screws **(A)** by means of a CH4 hexagonal key;
- ✓ Remove the apple pusher and spacer;
- ✓ Discharge the compressed air in the system and lower the pneumatic cylinder to its maximum stroke limit;
- ✓ Remove the 4 screws **(B)**;
- ✓ Remove the existing coring tube and replace with the new one;
- ✓ Put the 4 fixing screws back into place and fasten them **(B)**;
- ✓ Put the apple pusher and spacer back into place and fix it to the plate by means of the two screws **(A)** with a CH4 hexagonal key;
- ✓ Follow the same sequence for the second tube

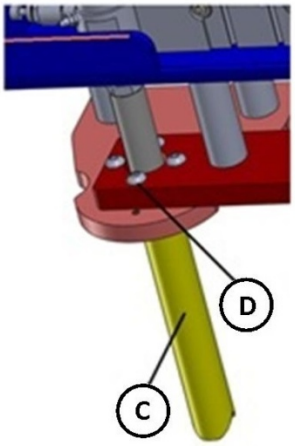
10.1. TOOLKIT CHANGE

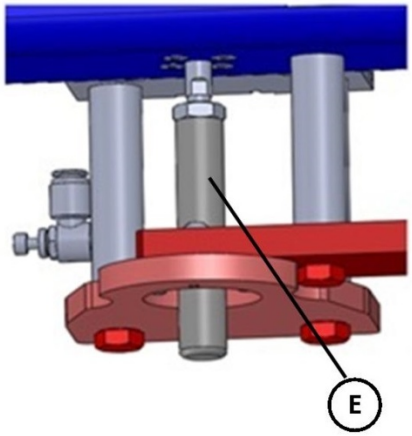
If the CORING ON-OFF function is included with your unit, you may slice fruit without coring it. In order to do so, you should first replace the **CORING TUBES** with the **SPIKES** by following procedure below:

- ✓ Stop the picking/slicing unit in the position shown in the picture below









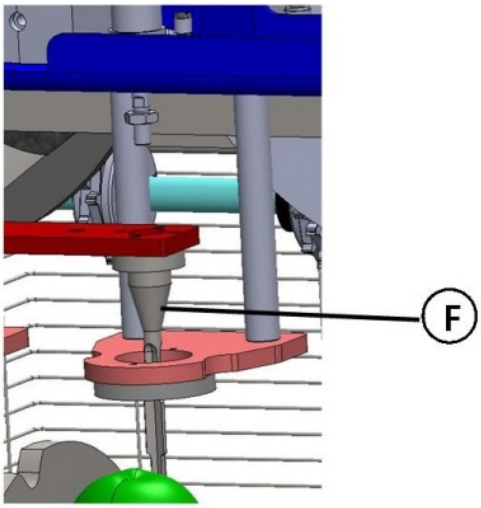
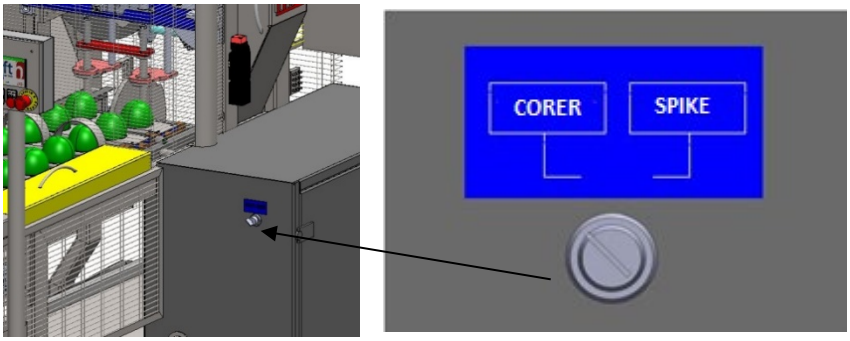


Figura 7 tool change: corer – spike

- ✓ Disconnect the machine from power supply and compressed air supply;
- ✓ Remove the 2 screws **(B)** by means of a CH4 hexagonal key;
- ✓ Remove the apple pushe**(A)** and spacer;
- ✓ Discharge the compressed air in the system and lower the pneumatic cylinder to its maximum stroke limit;
- ✓ Remove the 4 screws **(D**);
- ✓ Remvoing the coring tube **(C);**
- ✓ Remove the core ejector **(E)** by unscrewing it from the cylinder head;
- ✓ Assemble the spike **(F)**
- ✓ Put the 4 fixing screws back into place and fasten them **(D);**
- ✓ Put the apple pusher and spacer back into place **(A)** and fix it to the plate by means of the two screws **(B)** using Ach4 hexagonal key;
- ✓ **Turn the KEY SELECTOR located on the side cover of the power and drive cabinet to the position corresponding to the selected operation.**



WARNING :

Remove the core ejector (E) before assembling the spike on the machine.

WARNING :

Always make sure you turn the KEY SELECTOR to the position corresponding to the selected tool

10.2. CHANGING THE BLADES

The ring slicer may be tooled up with two different types of blades:

- ✓ **SMOOTH BLADES**
- ✓ **CRINKLE-CUT BLADES**

To replace worn-out blades or to switch from smooth blades to crinkle-cut blades and vice versa, follow the instructions below:

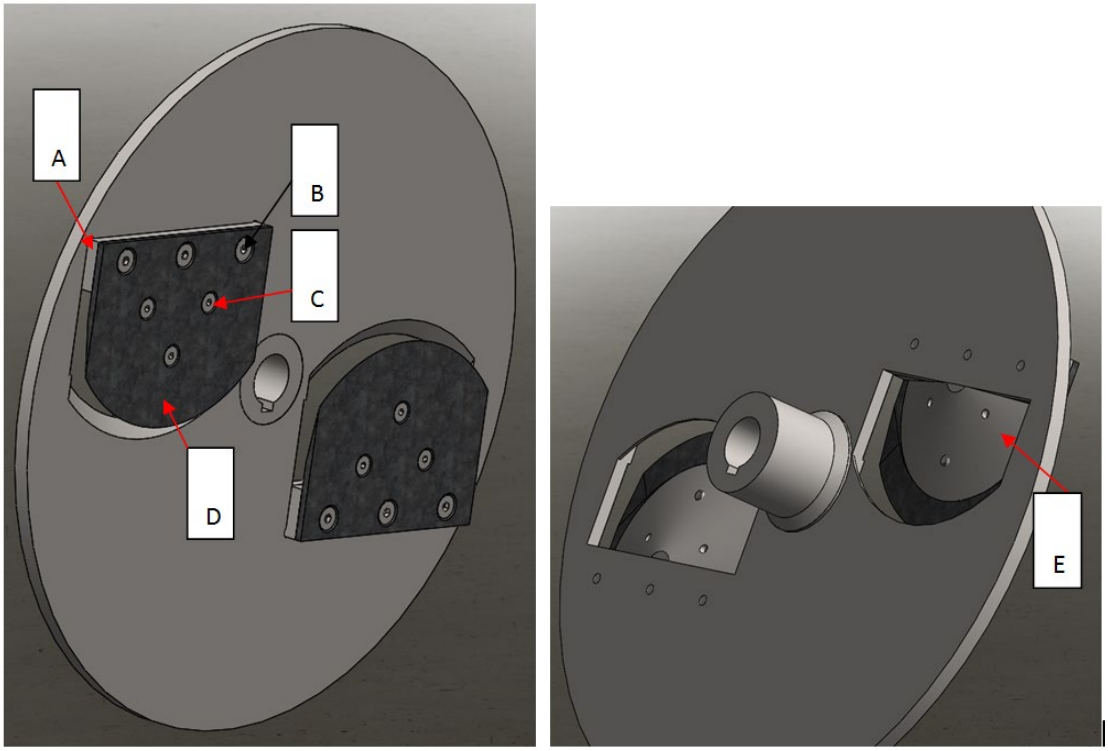


Figura 8 Changing the blades

- ✓ Make sure the machine is disconnected from power and compressed air supply;
- ✓ Remove the side guards covering the slicing unit;
- ✓ Unscrew the three screws **"B"** with CH4 hexagon key;
- ✓ Remove the blades **"D"** and the spacers **"A";**
- ✓ Separate the blades from their mounting supports **"E"** by unscrewing the three screws **"C";**
- ✓ Replace the blades with the new ones and fix them to their mounting support **"E"** by fastening the three screws **"C"**;
- ✓ Fix the blades with their mounting supports **"D"** to the disk together with the spacers **"A"**;
- ✓ Screw back again the three screws **"B"** with CH4 hexagon key;
- ✓ Put back into place the side safety guards covering the slicing unit.

WARNING:
Use the personal devices protecting against cutting risk

10.3. ADJUSTMENT OF SLICE THICKNESS

With MW-R2 ring slicer the type if slices and the thickness of slices may be adjusted by changing the toolkits**.**
The table below shows the **THICKNESS CHANGE TOOLKITS with the codes for spare parts order:**

(this table shall be supplied as an attachment as well)

SLICER - MRW	
CORING TUBES STANDARD Ø FOR SEGMENTING/CHUNKING "W"	
Ø20 X L150	70106.11411
Ø22 X L150	70106.11047
Ø24 X L150	70106.11046
Ø25 X L150	70106.11148
RONDELLATRICE - MRW	
CORING TUBES STANDARD Ø FOR SMOOTH RING SLICING "S"	
Ø20 X L168	70106.11406
Ø22 X L168	70106.11523
Ø24 X L168	70106.11524
Ø25 X L168	70106.11525
RONDELLATRICE - MRW	
CORING TUBES STANDARD Ø FOR CRINKLE-CUT SLICING "C"	
Ø20 X L163	70106.11526
Ø22 X L163	70106.11527
Ø24 X L163	70106.11528
Ø25 X L163	70106.11529

SMOOTH RING-SLICING FUNCTION ON MW-R
*TOOLKITS FOR ADJUSTING RING-SLICE THICKNESS WITH SMOOTH BLADES***

TOOLKIT CODE	MARKS ON PART	RING-SLICE THICKNESS (mm)	TUBE SPACER PART NO.	TUBE SPACER L=168	SCREWS	WASHERS	PUSHER SPACER PART NO.	THICKNESS OF SPACER FOR PUSHER NO. *70101.11520*	SCREWS	BLADE SPACER PART NO.	THICKNESS OF BLADE SPACER	SCREWS	BLADE MOUNTING PART NO.	THICKNESS OF BLADE MOUNTING (mm)	SCREWS
	10	10	70105.11207	2pcs 4mm thick	8 pcs T.E. M6x23	8 pcs M6	NONE	4 pcs T.C.E.I. M5 X 33	70105.12003	4 pcs 8mm thick	12x T.S.E.I. M6 X 17*	70105.12065	4 pcs 15mm thick	8 pcs T.S.E.I. M5 X 10 + 4 pcs T.S.E.I. M5 X 7
	9	9	70105.11516	2pcs 5mm thick	8 pcs T.E. M6x24	8 pcs M6	70105.11519	2pcs 1mm thick	4 pcs T.C.E.I. M5 X 34*	70105.12517	4 pcs 7mm thick	12x T.S.E.I. M6 X 16*	70105.12065	5 pcs 15mm thick	8 pcs T.S.E.I. M5 X 10 + 4 pcs T.S.E.I. M5 X 7
	8	8	70105.11206	2pcs 6mm thick	8 pcs T.E. M6x25	8 pcs M6	70105.11518	2pcs 2mm thick	4 pcs T.C.E.I. M5 X 35	70105.12018	4 pcs 6mm thick	12x T.S.E.I. M6 X 15*	70105.12065	6 pcs 15mm thick	8 pcs T.S.E.I. M5 X 10 + 4 pcs T.S.E.I. M5 X 7
	7	7	70105.11515	2pcs 7mm thick	8 pcs T.E. M6x26	8 pcs M6	70105.11418	2pcs 3mm thick	4 pcs T.C.E.I. M5 X 36*	70105.12008	4 pcs 5mm thick	12x T.S.E.I. M6 X 14*	70105.12065	7 pcs 15mm thick	8 pcs T.S.E.I. M5 X 10 + 4 pcs T.S.E.I. M5 X 7
	6	6	70105.11174	2pcs 8mm thick	8 pcs T.E. M6x27	8 pcs M6	70105.11408	2pcs 4mm thick	4 pcs T.C.E.I. M5 X 37	70105.12017	4 pcs 4mm thick	12x T.S.E.I. M6 X 13*	70105.12065	8 pcs 15mm thick	8 pcs T.S.E.I. M5 X 10 + 4 pcs T.S.E.I. M5 X 7
	5	5	70105.11205	2pcs 9mm thick	8 pcs T.E. M6x28	8 pcs M6	70105.11412	2pcs 5mm thick	4 pcs T.C.E.I. M5 X 38*	70105.12016	4 pcs 3mm thick	12x T.S.E.I. M6 X 12*	70105.12209	4 pcs 10mm thick	8 pcs T.S.E.I. M5 X 10 + 4 pcs T.S.E.I. M5 X 7
	4	4	70105.11204	2pcs 10mm thick	8 pcs T.E. M6x29	8 pcs M6	70105.11413	2pcs 6mm thick	4 pcs T.C.E.I. M5 X 39*	70105.12129	4 pcs 2mm thick	12x T.S.E.I. M6 X 11*	70105.12209	5 pcs 10mm thick	8 pcs T.S.E.I. M5 X 10 + 4 pcs T.S.E.I. M5 X 7
	3	3	70105.11203	2pcs 11mm thick	8 pcs T.E. M6x30	8 pcs M6	70105.11414	2pcs 7mm thick	4 pcs T.C.E.I. M5 X 40*	70105.12015 / 70105.12522	NONE	12x T.S.E.I. M6 X 10*	70105.12209	6 pcs 10mm thick	8 pcs T.S.E.I. M5 X 10 + 4 pcs T.S.E.I. M5 X 7
	2	2	70105.11202	2pcs 12mm thick	8 pcs T.E. M6x30	8 pcs M6	70105.11415	2pcs 8mm thick	4 pcs T.C.E.I. M5 X 41*	NONE	4 pcs 0,8 / 1,2mm thick NONE	12x T.S.E.I. M6 X 9	70105.12209	7 pcs 10mm thick	8 pcs T.S.E.I. M5 X 10 + 4 pcs T.S.E.I. M5 X 7

CRINKLE-CUT RING-SLICING FUNCTION ON MW-R
*TOOLKITS FOR ADJUSTING RING-SLICE THICKNESS WITH CRINKLE-CUT BLADES***

TOOLKIT CODE	MARKS ON PART	RING-SLICE THICKNESS (mm)	TUBE SPACER PART NO.	TUBE SPACER L=163	SCREWS	WASHERS	PUSHER SPACER PART NO.	THICKNESS OF SPACER FOR PUSHER NO. *70101.11521*	SCREWS	BLADE SPACER PART NO.	THICKNESS OF BLADE SPACER	SCREWS	BLADE MOUNTING PART NO.	THICKNESS OF BLADE MOUNTING (mm)	SCREWS
70116.11175	C7	7	70105.11515	2pcs 7mm thick	8 pcs T.E. M6x26	8 pcs M6	70105.11418	2pcs sp=3	4 pcs T.C.E.I. M5 X 36*	70105.12008	4 pcs sp=5mm	12x T.S.E.I. M6 X 14*	70105.12065	4 pcs sp=15mm	8 pcs T.S.E.I. M5 X 10 + 4 pcs T.S.E.I. M5 X 7
70116.11176	C6	6	70105.11174	2pcs 8mm thick	8 pcs T.E. M6x27	8 pcs M6	70105.11408	2pcs sp=4	4 pcs T.C.E.I. M5 X 37	70105.12017	4 pcs sp=4mm	12x T.S.E.I. M6 X 13*	70105.12065	8 pcs sp=15mm	8 pcs T.S.E.I. M5 X 10 + 4 pcs T.S.E.I. M5 X 7
70116.11177	C5	5	70105.11205	2pcs 9mm thick	8 pcs T.E. M6x28	8 pcs M6	70105.11412	2pcs sp=5	4 pcs T.C.E.I. M5 X 38*	70105.12016	4 pcs sp=3mm	12x T.S.E.I. M6 X 12*	70105.12209	4 pcs sp=10mm	8 pcs T.S.E.I. M5 X 10 + 4 pcs T.S.E.I. M5 X 7
70116.11178	C4	4	70105.11204	2pcs 10mm thick	8 pcs T.E. M6x29	8 pcs M6	70105.11413	2pcs sp=6	4 pcs T.C.E.I. M5 X 39*	70105.12129	4 pcs sp=2mm	12x T.S.E.I. M6 X 11*	70105.12209	4 pcs sp=10mm	8 pcs T.S.E.I. M5 X 10 + 4 pcs T.S.E.I. M5 X 7
70116.11179	C3	3	70105.11203	2pcs 11mm thick	8 pcs T.E. M6x30	8 pcs M6	70105.11414	2pcs sp=7	4 pcs T.C.E.I. M5 X 40*	70105.12015	4 pcs sp=1mm	12x T.S.E.I. M6 X 10*	70105.12209	4 pcs sp=10mm	8 pcs T.S.E.I. M5 X 10 + 4 pcs T.S.E.I. M5 X 7
70116.11180	C2	2	70105.11202	2pcs 12mm thick	8 pcs T.E. M6x30	8 pcs M6	70105.11415	2pcs sp=8	4 pcs T.C.E.I. M5 X 41*	NONE	NONE	12x T.S.E.I. M6 X 9	70105.12209	4 pcs sp=10mm	8 pcs T.S.E.I. M5 X 10 + 4 pcs T.S.E.I. M5 X 7

CHUNKING FUNCTION ON MW-R
*TOOLKITS FOR ADJUSTING CHUNK THICKNESS WITH SMOOTH BLADES KIT SPESSORE SPICCHIATURA RONDELLA CON LAMA LISCIA***

TOOLKIT CODE	MARKS ON PART	*CHUNK THICKNESS (mm)*	TUBE SPACER PART NO.	TUBE SPACER L=150	SCREWS	WASHERS	PUSHER SPACER PART NO.	THICKNESS OF SPACER FOR PUSHER (PART NP VARIES WITH NO	SCREWS	BLADE SPACER PART NO.	THICKNESS OF BLADE SPACER	SCREWS	BLADE MOUNTING PART NO.	THICKNESS OF BLADE MOUNTING (mm)	SCREWS	PART NO. OF BRACKETS FOR SEGMENTING-DIE UNIT	LENGTH OF BRACKET	SCREWS
	10	10	70105.11207	2pcs 4mm thick	8 pcs T.E. M6x23	8 pcs M6	ASSENTE	assente	4 pcs T.C.E.I. M5 X 33	70105.12003	**4 pcs sp=8mm**	12x T.S.E.I. M6 X 17*	70105.12065	4 pcs sp=15mm	**8 pcs T.S.E.I. M5 X 10 + 4 pcs T.S.E.I. M5 X 7**		**4 pcs L=84mm**	**12x T.S.E.I. M5 X 10**
	9	9	70105.11516	2pcs 5mm thick	8 pcs T.E. M6x24	8 pcs M6	70105.11519	2pcs sp=1	4 pcs T.C.E.I. M5 X 34*	70105.12517	4 pcs sp=7mm	12x T.S.E.I. M6 X 16*	70105.12065	4 pcs sp=15mm	8 pcs T.S.E.I. M5 X 10 + 4 pcs T.S.E.I. M5 X 7		4 pcs L=89mm	12x T.S.E.I. M5 X 10
	8	8	70105.11206	2pcs 6mm thick	8 pcs T.E. M6x25	8 pcs M6	70105.11518	2pcs sp=2	4 pcs T.C.E.I. M5 X 35	70105.12018	4 pcs sp=6mm	12x T.S.E.I. M6 X 15*	70105.12065	4 pcs sp=15mm	8 pcs T.S.E.I. M5 X 10 + 4 pcs T.S.E.I. M5 X 7		4 pcs L=88mm	12x T.S.E.I. M5 X 10
	7	7	70105.11515	2pcs 7mm thick	8 pcs T.E. M6x26	8 pcs M6	70105.11418	2pcs sp=3	4 pcs T.C.E.I. M5 X 36*	70105.12008	4 pcs sp=5mm	12x T.S.E.I. M6 X 14*	70105.12065	4 pcs sp=15mm	8 pcs T.S.E.I. M5 X 10 + 4 pcs T.S.E.I. M5 X 7		4 pcs L=87mm	12x T.S.E.I. M5 X 10
	6	6	70105.11174	2pcs 8mm thick	8 pcs T.E. M6x27	8 pcs M6	7.010.511.498	2pcs sp=4	4 pcs T.C.E.I. M5 X 37	7.010.512.017	4 pcs sp=4mm	12x T.S.E.I. M6 X 13*	7.010.512.065	4 pcs sp=15mm	8 pcs T.S.E.I. M5 X 10 + 4 pcs T.S.E.I. M5 X 7	*7.010.516.496*	4 pcs L=88mm	12x T.S.E.I. M5 X 10
	5	5	70105.11205	2pcs 9mm thick	8 pcs T.E. M6x28	8 pcs M6	70105.11412	2pcs sp=5	4 pcs T.C.E.I. M5 X 38*	70105.12016	4 pcs sp=3mm	12x T.S.E.I. M6 X 12*	70105.12209	4 pcs sp=10mm	8 pcs T.S.E.I. M5 X 10 + 4 pcs T.S.E.I. M5 X 7	*70105.16420*	4 pcs L=88mm	12x T.S.E.I. M5 X 10
	4	4	70105.11204	2pcs 10mm thick	8 pcs T.E. M6x29	8 pcs M6	70105.11413	2pcs sp=6	4 pcs T.C.E.I. M5 X 39*	70105.12129	4 pcs sp=2mm	12x T.S.E.I. M6 X 11*	70105.12209	4 pcs sp=10mm	8 pcs T.S.E.I. M5 X 10 + 4 pcs T.S.E.I. M5 X 7	*70105.16417*	4 pcs L=90mm	12x T.S.E.I. M5 X 10
	3	3	70105.11203	2pcs 11mm thick	8 pcs T.E. M6x30	8 pcs M6	70105.11414	2pcs sp=7	4 pcs T.C.E.I. M5 X 40*	70105.12015	4 pcs sp=1mm	12x T.S.E.I. M6 X 10*	70105.12209	4 pcs sp=10mm	8 pcs T.S.E.I. M5 X 10 + 4 pcs T.S.E.I. M5 X 7	*70105.16421*	4 pcs L=91mm	12x T.S.E.I. M5 X 10
	2	2	70105.11202	2pcs 12mm thick	8 pcs T.E. M6x30	8 pcs M6	70105.11415	2pcs sp=8	4 pcs T.C.E.I. M5 X 41*	NONE	NONE	12x T.S.E.I. M6 X 9	70105.12209	4 pcs sp=10mm	8 pcs T.S.E.I. M5 X 10 + 4 pcs T.S.E.I. M5 X 7		4 pcs L=92mm	12x T.S.E.I. M5 X 10

10.4. CHANGING THE BLADE SPACERS

To replace the **BLADE SPACERS** follow instructions below:

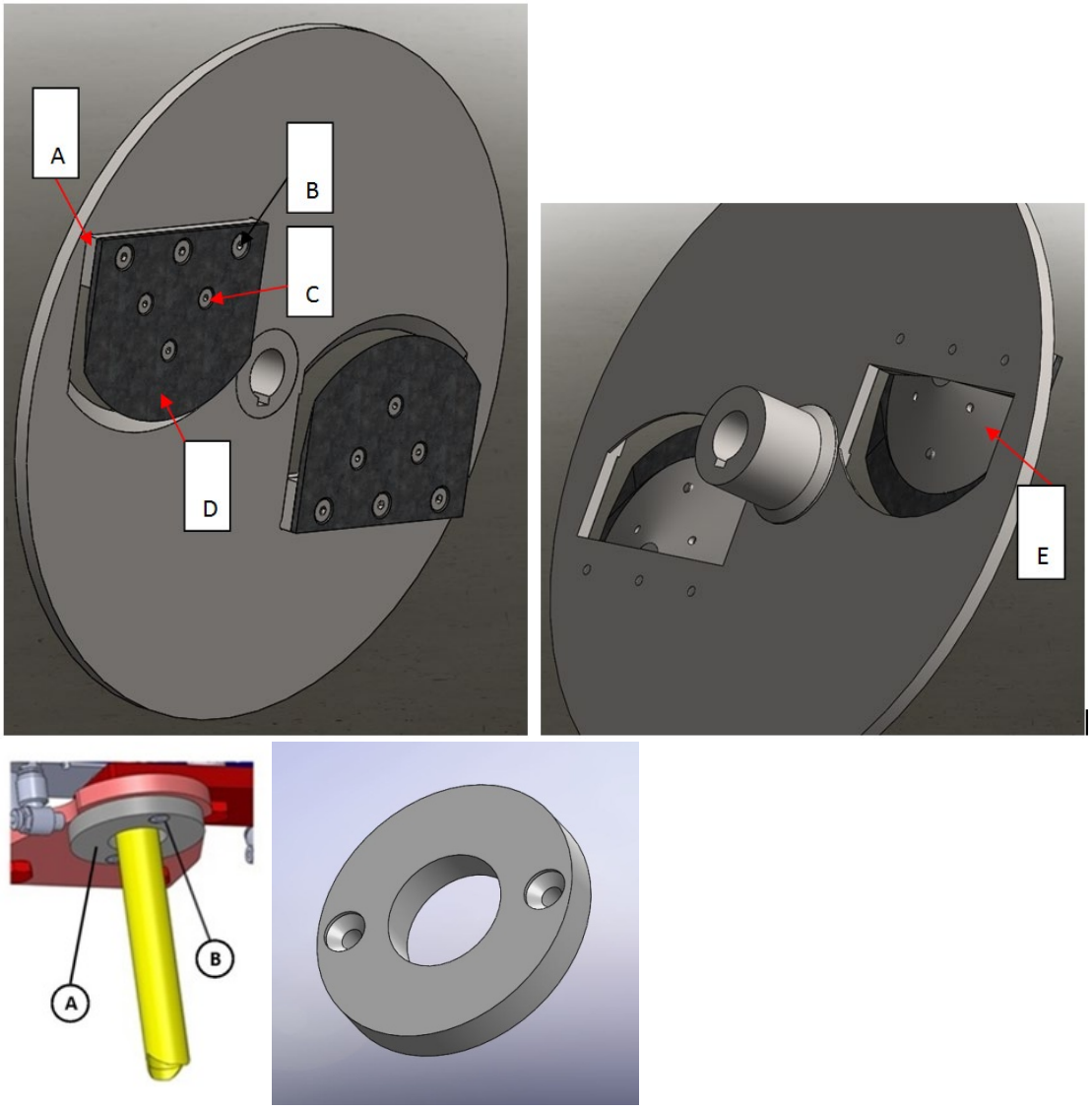


Figure 9 Change of blade spacers

- ✓ Make sure the machine is disconnected from power and compressed air supply;
- ✓ Remove the movable guards covering the slicing unit;
- ✓ Unscrew the three screws **"B"** with CH4 hexagonal key;
- ✓ Remove the blades **"D"** and the spacers **"A";**
- ✓ Separate the blades from their mounting support **"E"** by unscrewing the three screws **"C";**
- ✓ Remove the FRUIT PUSHER **"A"** by unscrewing the fixing screws **"B"**
- ✓ Assemble all parts making up the new TOOLKIT with the appropriate coupling screws

Put the safety guards covering the slicing unit back into place

10.5. ADJUSTMENT

SYNCHRONIZATION OF THE FRUIT CONVEYOR WITH THE PROCESSING HEAD (SETTING THE ZERO POSITION)

For the machine to work correctly there must be a perfect alignment between the 70102.00156 coring tube, the hole on the fruit conveyor belt plate, and the hole on the 70302.00029 fixed plate. When all three elements are perfectly centred, the fruit conveyor belt is defined as “in phase”.

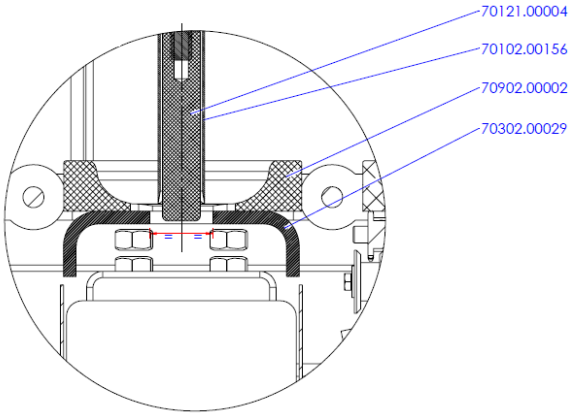
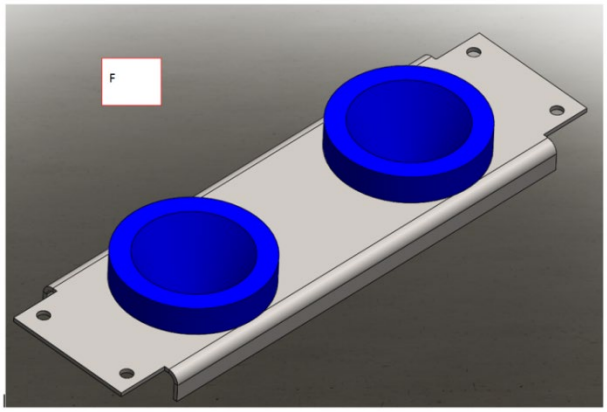
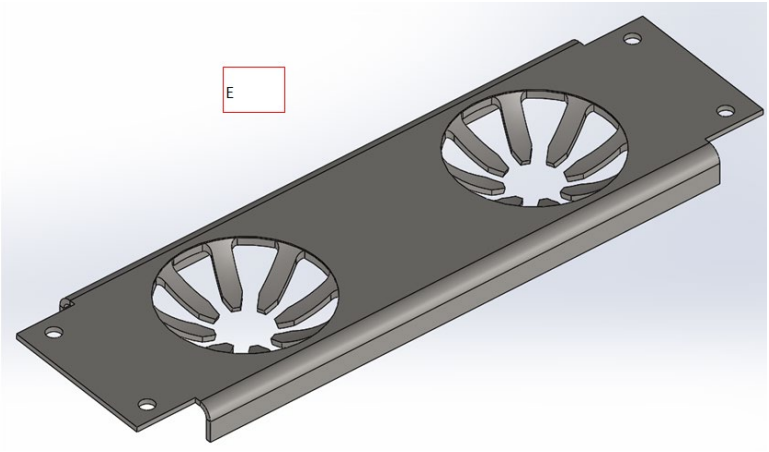


Fig. 11 Correct position of the coring tube with respect to the fruit conveyor

10.6. CHANGE OF CONVEYING PLATES

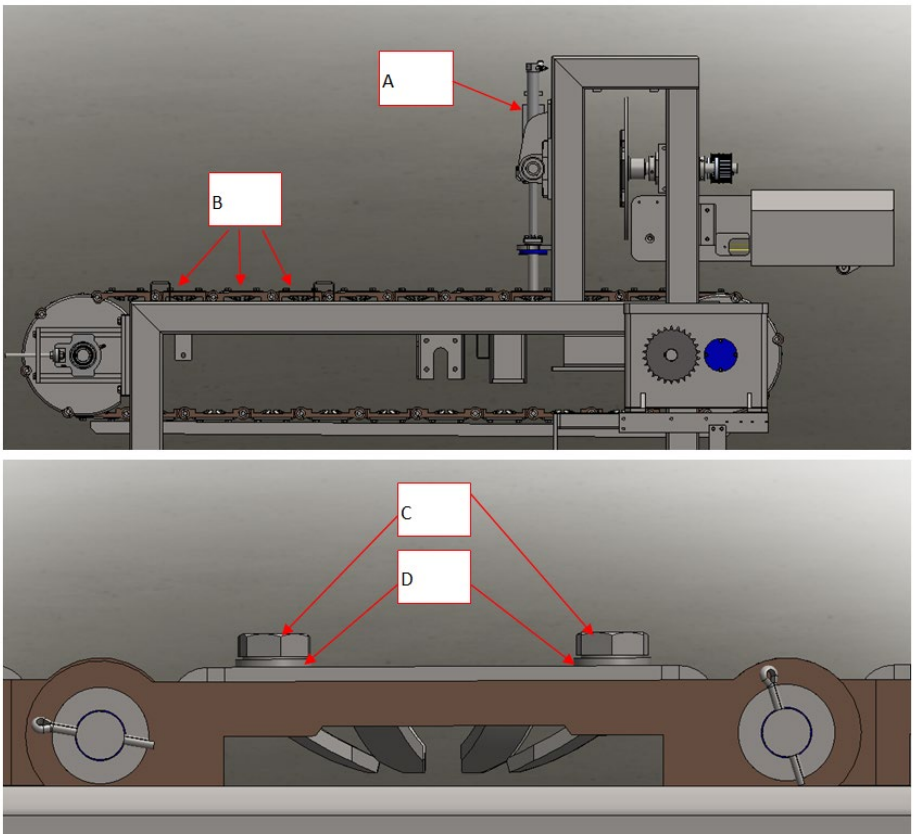
The machine may be equipped with two different set of fruit conveying plates suitable alternatively for apples and persimmons **"E"** or pears **"F"**



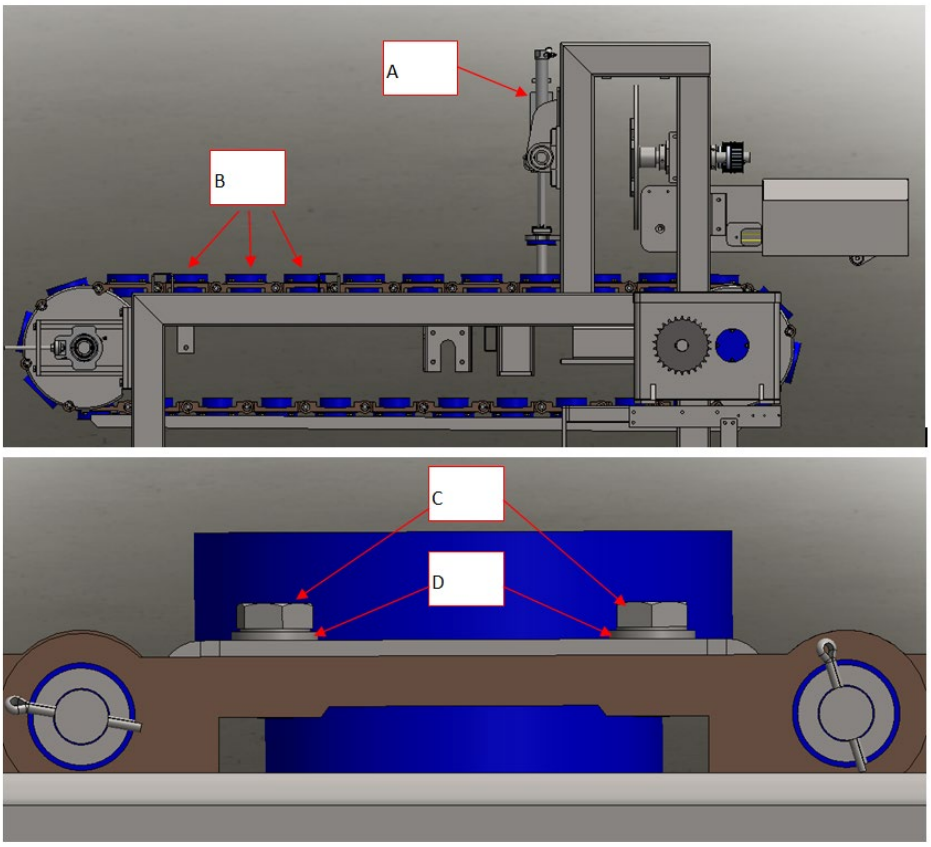


To change the coneying plates please follow instructions below:

- ✓ Stop the machine in position **"A"**
- ✓ Disassemble the three plates **"F"** that are located in positions **"B"** by unscrewing the fixing screw **"C"** and removing the washers **"D"**



- ✓ Remove plates **"E"** and replace them with plates **"F"**, fix them with the appropriate washers **"D"** and screws **"C"**
- ✓ Start the belt to bring the next three plates to replace to move to **“B”** positions and stop again the machine in position **"A"**
- ✓ Repeat the above procedure until you have replaced all plates on the conveyor



11. MAINTENANCE TROUBLESHOOTING AND CLEANING

11.1. MAINTENANCE STAFF REQUIREMENTS

The term "maintenance" should not be understood as a requirement to simply make periodical checks that the machine is functioning correctly, but should also entail analysis and subsequent elimination of the causes that in one way or another put the machine out of order.
The personnel carrying out the operations described in this chapter must not only display the characteristics listed in chapter 4 but also **have read and assimilated** the safety measures described in the same chapter concerning residual risks.

It is absolutely vital that the **maintenance, cleaning, parts replacement and troubleshooting** activities performed by the machine user are **entrusted to skilled personnel with the necessary competences** and with the employer's express authorization.
These skilled workers must have the ability to assess the tasks assigned to them and identify the potential risks using their training, know-how, professional experience, and their familiarity with the machine, its related equipment and the applicable legislation. They must also hold a relevant professional qualification for machine servicing. They must be **fully trained in safety precautions** and informed about the residual risks described in chapter 4.
They must also have **received the appropriate education and not simply instructions**; in other words they must be qualified machine technicians or engineers with knowledge about the machine and its related equipment as well as the relevant legislation, and display specific technical abilities and/or training.

All **maintenance, cleaning and parts replacement operations** must, without any exception, be performed with all parts of the machine stationary and disconnected from external power supplies.
Before embarking on any **maintenance, cleaning, parts replacement or troubleshooting** operations, pay close attention to the labels attached to the machine. During these operations, neither said labels nor the safety devices may be tampered with or removed for any reason; nor may bypasses be created or adjustments made so that the machine can be used for purposes other than those it was designed for.
In the event of the labels deteriorating or becoming illegible, request substitutes immediately from the machine constructor.

Maintenance staff have the following tasks:

- ✓ set up, calibrate and adjust the machine's settings; these operations may also be performed in the danger zones as long as the fixed guards are locked in place;
- ✓ clean the inner parts of the machine (which may involve removing parts), maintenance, servicing, troubleshooting, replacement of parts that have become worn or decayed or even of structural elements;
- ✓ perform the operations described in the previous points by removing the fixed guards if necessary.

11.2. MAINTENANCE PROVISIONS

REMOVAL OF GUARDS AND/OR SAFETY DEVICES

For some of the operations described in this chapter, **it is necessary to remove certain fixed guards from their places**. Only appointed service staff may remove these elements.

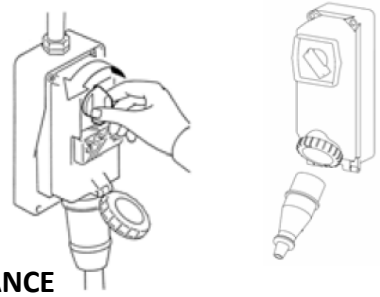
When the operations have been completed, the guards must be replaced and locked into their original positions, using the fastening systems in place before the operation.

The maintenance manager must completely disconnect the machine, as described below, before proceeding with the removal of a fixed guard and/or the replacement of an element.

ISOLATION FROM EXTERNAL POWER SUPPLIES

Before performing any maintenance, cleaning or replacement of parts, external power supplies must be disconnected and isolated.

Set the protection device to "ZERO" that is placed upstream of the power line of the electrical equipment



Unplug the general disconnecting device and protect the plug with the appropriate systems

11.3. ORDINARY MAINTENANCE

The personnel performing the operations included in this chapter, as well as having the characteristics described in chapter 4, must have read and understood the safety precautions provided in chapter 4.

For the disposal of damaged and replaced materials, refer to the requirements found in Chapter 7.

11.4. ORDINARY MAINTENANCE PERFORMABLE BY THE OPERATOR

Tab 1 – Ordinary maintenance operator activity

FREQUENCY	VERIFICATION	METHODS AND FINDINGS
Before each work shift	**Make sure the workspace:** ✓ is clean	The workplace and all the external parts of the machine must be cleaned; any parts on the machine must also be removed that could impede its proper operation and that may compromise the original safety conditions of the machine. For any type of intervention or replacement of parts, activate the maintenance service.
At least once at week	**Check the functionality** ✓ safety devices referred to in chapter 4 ✓ stop functions	Carry out a visual inspection and a functional test of the safety devices, of the foreseen interlocks and of the stop functions in order to ascertain their correct functioning and stopping of the moving elements. For any type of intervention or for parts replacement, activate the maintenance service.
	Visual verification of integrity ✓ all the plates of instruction, identification, signaling and warning	In the event of their illegibility, or are requested from the Authorized Assistance Center or are in any case replaced by the user with others bearing the same information, as indicated in chapter 4
At least once at month	**Visual verification of integrity** • Tools	The use of tools determines their wear over time. Visually check the absence of chipping or scoring in the tool, If at least one check is unsuccessful, proceed with their replacement. Any replacement must take place with original products of the manufacturer. For further information contact the manufacturer

11.5. ORDINARY MAINTENANCE PERFORMABLE BY THE MAINTENANCE TECHNICIAN

Tab 2 – Maintainer activity for ordinary maintenance

FREQUENCY	VERIFICATION/CONTROL	METHODS AND FINDINGS
At least monthly	**Inside the motor casings - compartments**	All internal parts of the casings and compartments of the machine where the motors are installed, must be **kept clean and dry.** Provide adequate and common means (absorbent cloths for any water parts), for keeping these spaces suitable
At least monthly	**Check the following devices are working properly:** ✓ mechanical connections	Carry out, with the appropriate tools, a control of the tightening of clamps, screws, nuts, bolts and connections in general.
At least quarterly	**Check the following devices are working properly:** ✓ contactors of the motors,	Perform a visual inspection to determine the status of the power contacts of the contactors and ducts and piping inside and outside the casings. In the case that these, including the unipolar and/or multipolar cables are not in normal condition, replace them in order to ensure proper functionality.
At least quarterly	**Check the following devices are working properly:** ✓ o the connections of the bonding and protective circuit	With appropriate instrumentation it is necessary to measure and control the resistance to ground of the equipotential bonding and protective system of each connection, so that the measured values are within the acceptable limits defined by the standards of installation and following the rules of the installation site. As part of the requirements - information given above, the respective ground system must be in full conformity with the applicable requirements for coordination with the associated active devices, according to IEC364_5_54 / HD382_5_54 / CEI 64.8 (5_54) (latest editions).
At least every six months	**Check:** ✓ the electrical insulation of the motor	With appropriate instrumentation it is necessary to measure and control the insulation resistance of the motors, so that the measured values are within the acceptable limits defined by the standards of installation and following the rules of the installation site.
At least every six months	**Check:** ✓ the absorption in the individual phases of the utilities and motors	With appropriate instrumentation it is necessary to measure the absorption on each power conductor of use and motors. In the case that the values detected during normal operation do not fall within a range of 10% of the values indicated in the electric power and command/control diagrams, activate the maintenance service in order to verify all the other characteristics of use/motor, as this may soon fail.
At least annually	**Check the following devices are working properly:** ✓ o connections and electrical components inside and outside the casings	Check that there is no loosening. If present restore the connections in a durable manner by tightening the connections with the adequate torque shown directly on the electrical components. The control must also include: - the integrity of casings, button panels, and sheathing of electric cables; - the functionality of all the control and power actuators.

12. ORDINARY INTERVENTIONS

SPEED CHANGES

The machine's operative speed can be changed using the variable speed geared motor handwheel as seen in Fig. 10;
The machine's maximum speed is 20 cycles per minute, thus obtaining 40 fruits.

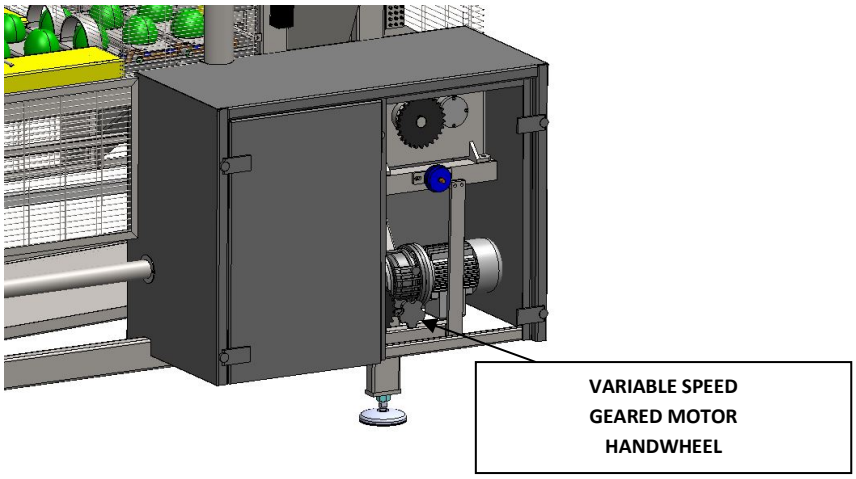
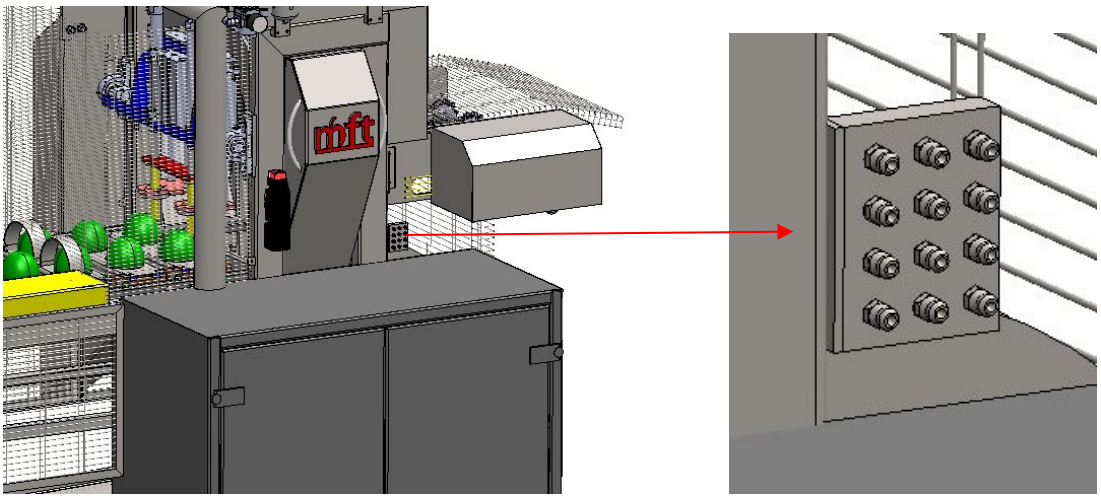


Fig. 10 Machine motorisation

13. LUBRICATION

ORDINARY LUBRICATION

To ensure correct operation and reduced wear of the machine's mechanical components we recommend inspection of the lubrication points every 12 hours. Lubrication points are centralised and located on the front sides of the machine as in Fig, 11.



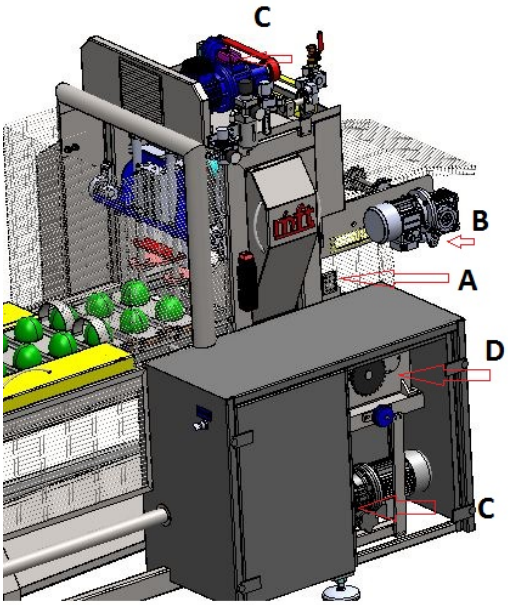


Fig. 11 Lubrication points

SCHEDULED LUBRICATION

To avoid damage to the machine we recommend the following lubrication plan.

POS.	LUBRICANT TYPE	LUBRICATION FREQUENCY
A	ALUGRAFT G93 EP1	WEEKLY
B	OIL ISO VG 320	EVERY 6 MONTHS
C	SHELL DONAX TA	EVERY 6 MONTHS
D	Motul 7100 10W-30	ANNUAL

14. SPECIAL MAINTENANCE

For **special maintenance and part replacement**, due to damage, revisions, or mechanical or electrical failures, assistance must be requested directly from the Manufacturer.
The instructions for special maintenance are not included in this user manual and must therefore be explicitly requested from the Manufacturer**.**

For disposal of damaged and replaced materials, refer to the requirements in chapter 7.

Further specifications:

- Do not attempt replacements and/or repairs of significant elements.
- Do not perform welding of eventual damaged parts.
- Never use the machine if it is not at full efficiency.

After major repair interventions or part replacement, before being subsequently restarted, the controls, adjustments, and verifications indicated in Chapters 4, 5, and 6 must be carried out with positive results.
For disposal of damaged and replaced materials, refer to the requirements in chapter 7

14.1. TROUBLE SHOOTING OR FAILURES AND RELEASE OF MOBILE ELEMENTS

Before proceeding with any interventions or investigations:

- Indicate, using a sign, that maintenance is being performed;
- Before restarting the machine, always ensure that no staff members are still engaged in cleaning and/or maintenance operations.
- For checks and minor electric repairs only employ professional electricians and/or electrical engineers who are fully qualified and properly authorised.
- For mechanical repairs, always and compulsorily refer only to the Authorised Service Centre.
- Always and in all cases consult the Authorised Service Centre in the manners indicated in the first pages of this manual.

The following are the troubleshooting, machine failure, and mobile element unblocking interventions that can be performed by professional maintenance staff as defined in par. 6.1.

TYPE	POTENTIAL CAUSES	WHAT TO DO AND OUTCOMES
Power failure	General black-out Cut off by fuses or trip switches located upline from the machine power supply	Contact the mains electricity supplier After eliminating the causes that prompted the safety switches to trip, turn the power back on. If the problem persists, contact a qualified electrician.
Interruption of operation	The machine's internal trip switch has cut off the power	Contact a qualified electrician; after eliminating the causes that prompted the safety switch to trip, turn the power back on. In the event of fuses having blown, replace them with ones of the same model, settings and time-current curve.
	Cause/s not identifiable	Directly contact the Manufacturer
The machine doesn't start	No power arriving Power switches turned to "OFF" Fuses blown or trip switches not working START button not working Thermal trip due to overheating	Check and reinstate the power supply. Turn the power switches to "ON". Replace the blown fuses; check the state of the trip switches. Check if the START button is working; in case of doubt, contact the machine constructor directly. Wait for the machine to cool down completely before starting up again.

15. CLEANING AND WASHING

Operators must not clean by hand any moving machinery or parts.

All cleaning operations may be begun only when the product being processed has been emptied from the machine and the machine has been disconnected from all external power and energy supplies.

To clean the machine, the electrical apparatus and the components at the side of the machine, never use benzine, solvents or any other inflammable and/or corrosive fluids.

Use commonly found, approved, non-flammable and non-toxic solvents. Follow the instructions for use and use any personal protective equipment (PPE) recommended by the suppliers of these substances.
The hygiene level classification for this machine and its accessory equipment, when put to its intended use, is two (2):
a machine which, following a hygiene risk assessment, has been judged in conformity with the applicable international standards, but requires planned disassembly for cleaning operations.

FREQUENCY	PERSONNEL	WHAT TO DO
At the end of each work shift; minimum once a day before beginning operations	Operator	All the surfaces and parts of the machine expected to come into contact with foodstuffs, on other words the **food-contact areas** (inner vacuum cooker surface, tubing, etc.), must be cleaned and disinfected following the procedure below. For instructions on removing the utensils, see the previous descriptions. - **The utensils must be replaced only when needed for an operation;** leave the pieces wrapped up in a soft, dry, lint-free cloth at other times **EXTENDED PERIODS OF INACTIVITY** - During any **extended periods when the machine is out of use**, rub all the steel surfaces (especially those in stainless steel) vigorously with a cloth soaked in vaseline oil in order to create a protective layer. **WHAT NOT TO DO BEFORE OR DURING CLEANING OPERATIONS:** - Access any moving parts without first ensuring that they have been switched off; - Access any moving parts without first ensuring that all are in safe mode (all the power switches have been turned to the "0" position). **PRODUCTS NOT TO USE:** - detergents containing chlorine (even if diluted) or related compounds such as: bleach, hydrochloric acid, drain-cleaning products, marble-cleaning products, anti-limescale products in general ... these can adversely affect the composition of the steel, causing irreparable rusting and/or staining. The fumes alone from these products can corrode steel; - steel wool, scrubbing brushes or abrasive pads made from other metals or alloys (e.g. regular steel, aluminium, brass, etc.) or utensils previously used to clean other metals or alloys - abrasive powdered detergents - benzine, inflammable and/or corrosive solvents or fluids.

16. DEMOLITION AND DISPOSAL

If you decide to stop using the machine because it is obsolete and/or irretrievably broken or worn to the point that repair is uneconomical, it is necessary to decommission it, making it inoperative and free of any potential hazards. Decommissioning must be done by **qualified and equipped personnel.**

Before starting the **demolition** report that there are ongoing interventions.

16.1. DEMOLITION

The main sequential steps for dismantling and decommissioning include (indicative, non-exhaustive list):

- ✓ the disconnecting device of the external energy supply must be locked with a padlock in zero position "0". See chapter 6 in this regard;
- ✓ disconnect the conductors from all the components inside the electrical cabinet and all components installed on the machine, and send them to the bodies or companies responsible for waste collection in accordance with regulations;
- ✓ remove all the components inside the electrical cabinet and all components installed on the machine, and send them to the bodies or companies responsible for waste collection in accordance with regulations;
- ✓ all metal or plastic casings, screws and any other part of steel or plastic must be sent to bodies or companies responsible for waste collection in accordance with current regulations;

All disconnection operations must be done using appropriate and adequately sized tools and equipment (e.g. flathead or Phillips screwdriver, hex keys, Allen keys etc...), depending on the screws to be loosened.

After the decommissioning of all the identification plates and any other document of the machine, it must be destroyed.

16.2. DISPOSAL

The assessment and management for the purpose of biological compatibility of products used in the machine are under the competence and responsibility of the user

The machine can be disposed of without the need to break it up it into tiny pieces; simply disconnect the main assemblies that compose it and place it on the means of transport used for scrapping.

The main obligations of the user are the following:

- ✓ for disposal, operate in accordance with applicable standards, turning to differentiated waste collection centres run by local authorities and/or companies specializing in the destruction of industrial machinery and/or the disposal of waste, and/or reuse, treatment and recycling centres, for the separation of plastic material, metallic material and electrical components **that must be sent to differentiated waste collection;**
- ✓ in the machine **there are no dangerous substances** that can have a potentially negative impact on the environment and human health;
- ✓ **improper use of the machine or its parts** does not lead to any potentially negative impact on the environment or human health;

17. SPARE PARTS AND WIRING DIAGRAMS

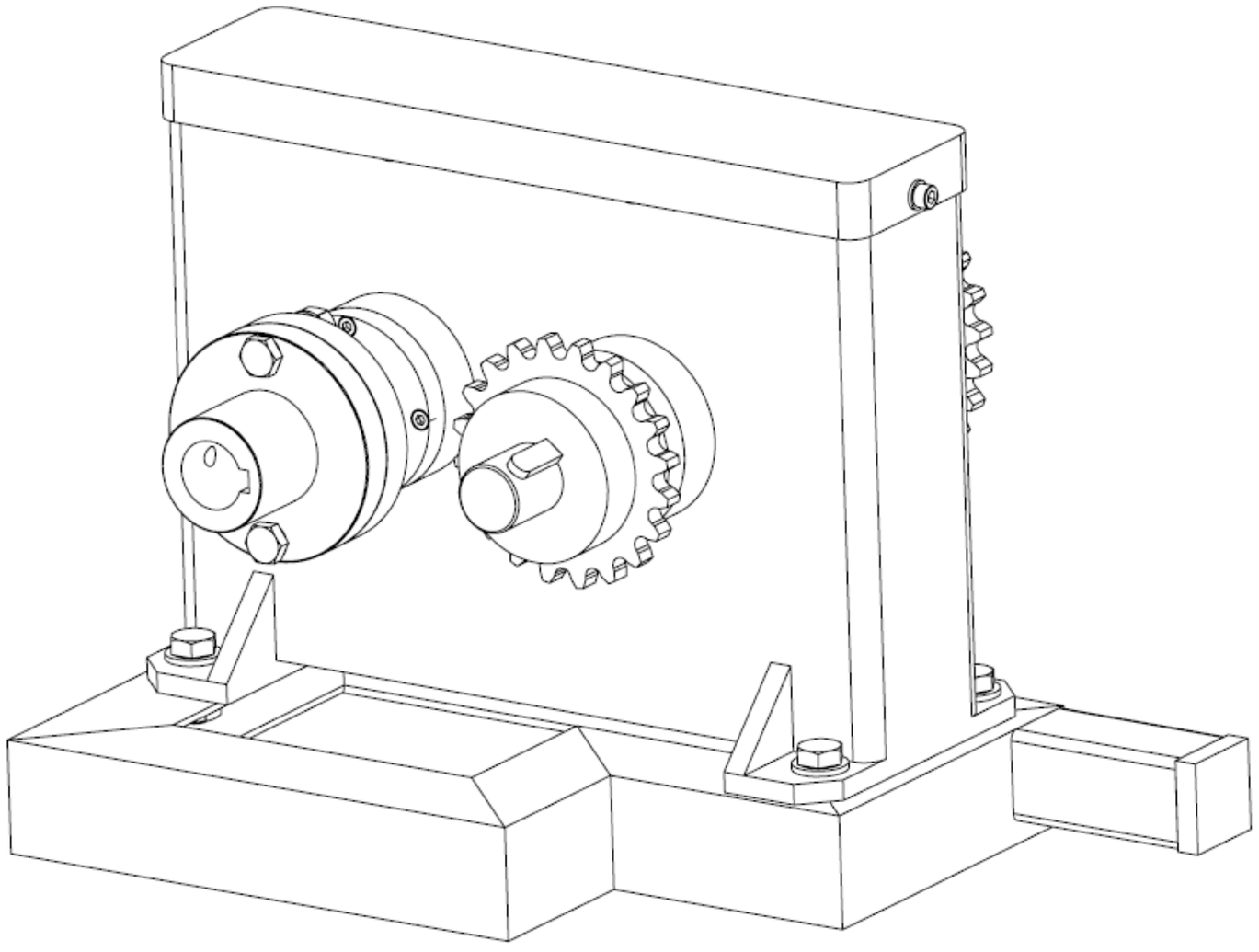
The following is a list of recommended replacement parts. To replace the ring slicer parts, the client must make exclusive use of original replacement parts, ordering them directly from MFT.
To limit the interruption of machine activity during production and during maintenance we recommend to stock up on a replacement part kit for the parts that are most subject to strain and therefore to wear.
Upon placing the order, one must specify the information on the machine's identification plate (see chapter 1).
For identification and ordering of the replacement part please refer to the following charts.
Proceed with the identification of the assembly group for the part requiring replacement and subsequently identify the order code on this chart or in the enclosed designs.

ASSEMBLY			
ASSEMBLY CODE (N. TAVOLA)	**DESCRIPTION**	**PAG**	**NOTES**
70802.00004	MALTA CROSS MECHANISM		
70802.00005	BLADE HOLDING DISC ASSEMBLY		
70802.00006	TRANSFER FOR DOUBLE BELT ASSEMBLY		
70802.00007	RING SLICE OUTLET BELT ASSEMBLY		MW-2RB
70802.00008	BELT STRETCHER ASSEMBLY		
70802.00009	BELT DRIVE ASSEMBLY		
70802.00010	RING SLICER ROLL SHAFT HOLDER GROUP		
70802.00011	LOWER CONVEYOR ASSEMBLY		
70802.00012	RING SLICER LOWER BELT DRIVE ASSEMBLY		
70802.00013	DISC TRANSMISSION GEAR GROUP		
70802.00014	RING SLICE OUTLET BELT ASSEMBLY		MW-2R
70802.00015	FRUIT ROTATION GROUP ASSEMBLY		
70802.00016	BRUSH ASSEMBLY		
70802.00017	LOADING HOPPER ASSEMBLY		
70802.00018	STRAIGHTENER ASSEMBLY		
70802.00019	MAIN MOTOR UNIT ASSEMBLY		

SPARE PARTS			
ASSEMBLY CODE (N. TAVOLA)	**DESCRIPTION**	**PART CODE**	**NOTE**
70802.00004	RING SLICER MALTA CROSS MECHANISM	70802.00004	
70802.00005	TPEI M5X8 DIN 7991 SCREW	10305.00174	
70802.00005	TPEI M6X16 DIN 7991 SCREW	10305.00036	
70802.00005	RING SLICER SLICE GUIDE	70302.00023	
70802.00005	RING SLICER BLADE	70302.10024	
70802.00005	PULLEY WITH Ø30 KEY	70402.00015	
70802.00006	RADIAL BALL BEARING ROLLER 15X35X11	20423.00027	
70802.00006	DOUBLE RIM RETAINING RING 20X35X7	20403.00002	
70802.00006	SHAFT WITH DOUBLE TOOTHED PULLEYS	70102.00150	
70802.00007	PAM63 4POLI 0,18KW B5 ELECTRIC MOTOR	20501.00008	

70802.00007	IDLER SHAFT FOR RING SLICE OUTLET BELT	70102.00153
70802.00007	040 I40 PAM63 B5 GEARBOX	20506.27075
70802.00007	CAST IRON SQUARE FLANGE SUPPORT + UCFC204 OIL SEAL	20433.18004
70802.00007	CLOSED COVER FOR SUPPORT 204	20406.18002
70802.00007	CLOSED COVER FOR SUPPORT 204	20405.18002
70802.00007	Z10 2W 2R 1P HUB66 PINION WITH KEYHOLE	20711.00134
70802.00007	Z10 2W 2R 1P HUB66 PINION WITH HOLE	20711.00135
70802.00008	RADIAL BALL BEARING ROLLER 15X35X11	20423.00027
70802.00008	DOUBLE RIM 20X35X7 SEALING RING	20403.00002
70802.00008	PULLEY STRETCHING ROLLER	70102.00151
70802.00009	RADIAL BALL BEARING ROLLER 15X35X11	20423.00027
70802.00009	DOUBLE RIM 20X35X7 SEALING RING	20403.00002
70802.00009	35 T102240 BELT LENGTH<25 ALL. PULLEY	20716.00198
70802.00009	AISI304-E35 EXTERNAL SNAP RINGS	20320.00033
70802.00010	DOUBLE RIM 20X35X7 SEALING RING	20403.00002
70802.00010	OBLIQUE BALL BEARING ROLLER WITH TWO CROWN RIMS Ø25 52 20.6	20419.15002
70802.00011	PAM63 4POLI 0,18KW B5 ELECTRIC MOTOR	20501.00008
70802.00011	LOWER CONVEYOR CENTRAL SHAFT	70102.00152
70802.00011	040 I40 PAM63 B5 GEARBOX	20506.27075
70802.00011	STAINLESS SQUARE FLANGE SUPPORT + OIL SEAL UCF205 Ø25	20431.00005
70802.00011	CLOSED COVER FOR SUPPORT 205	20406.18003
70802.00011	CYLINDRICAL BEARING DI25 DE28 B35	20449.07002
70802.00011	MESH BELT ULTRASCREEN2000 2X2 3817X440	20135.00002
70802.00012	SINGLE PULLEY UPPER SHAFT	70102.00154
70802.00013	TOOTHED BELT T10-1250-25	20102.00003
70802.00013	35 T102240 BELT LENGTH<25 ALL. PULLEY	20716.00198
70802.00013	PAM71 4POLI 0,55KW B5 ELECTRIC MOTOR	20501.00015
70802.00013	DOUBLE TOOTHED T10-1320-25 TOOTHED BELT	20105.0002
70802.00015	RING SLICER CORE EXTRACTOR	70121.00004
70802.00015	CORING TUBE Ø20	70102.00155
70802.00015	CORING TUBE Ø22	70102.00156
70802.00015	CORING TUBE Ø24	70102.00157
70802.00015	COMPACT CYLINDER WITH GUIDES MGPM32TFV-125ZXC6B1	20611.16023
70802.00015	AIR SUPPLY FLUX REGULATOR 1/4" Ø8	20629.16006
70802.00015	COMPACT CYLINDER WITH GUIDES MGPM40TFV-125ZXC6B	20611.16024
70802.00015	DOUBLE EFFECT STAINLESS CYLINDER Ø25 C200 AMM. PNEUM. WITH SIMPLE ROD	20611.16025
70802.00015	STAINLESS BRIDGE SUPPORT + OIL SEAL UCP205 Ø25	20440.00005
70802.00015	HEAD JOINT DX Ø16 JAF-16-INOX	20457.09007
70802.00015	DOUBLE EFFECT ISO 15552 CYLINDER Ø63 C125	20611.16026
70802.00016	BRUSH SHAFT CYLINDRICAL SUPPORT	70102.00159
70802.00016	BRUSH SHAFT	70122.00026
70802.00016	RUBBER STAR-SHAPED BRUSH Ø225 TUBE Ø70	20802.00002
70802.00016	1/2 Z13 Ø20 PINION WITH KEY	70402.00016
70802.00017	1/2 Z25 Ø25 STAINLESS PINION	20713.00134

70802.00017	LOADING HOPPER SHAFT ROLLER	70710.10002
70802.00017	OVAL FLANGE SUPPORT UCFL 205	20438.18003
70802.00017	OPEN COVER FOR SUPPORT 205	20405.18003
70802.00017	CLOSED COVER FOR SUPPORT 205	20406.18003
70802.00017	LOADING HOPPER FRONT SHAFT	70102.00160
70802.00017	DI25 DE28 B35 CYLINDRICAL BEARING	20449.07002
70802.00018	6 PITCH CHAIN L 266 STAINLESS	20702.00011
70802.00018	6 PITCH CHAIN L 1510 STAINLESS	20702.00012
70802.00018	6 PITCH CHAIN L 665 STAINLESS	20702.00013
70802.00018	TE M5 X 16 - AISI304 SCREW	10301.00027
70802.00018	X2 M5 - AISI304 FLAT WASHER	10203.00005
70802.00018	MOTOR TRANSMISSION EXTENSION	70102.00145
70802.00018	2 WAY ANGULAR TRANSMISSION POS. D1 Ø8	20722.00002
70802.00018	STRAIGHTENER AXIS	70102.00144
70802.00018	VERTICAL STRAIGHTENER AXIS	70102.00146
70802.00018	MOTOR TRANSMISSION SUPPORT	70102.00147
70802.00018	FASTENING BUSHING	70102.00148
70802.00018	APPLE STRAIGHTENING WHEEL	70102.01002
70802.00018	UPRIGHT ARTICULATED SUPPORT Ø8	20444.09014
70802.00019	WPLE 120 I25 Z2 GEARBOX	20506.00454
70802.00019	HG-JR203 SERVOMOTOR	20503.00002



	Data	Firma	
Disegnato	03/01/2017	Aurilia G.	Le quote sono in mm
Controllato			
Approvato			

mft morrone food tech

MFT S.r.l.
Via Madonna di Fatima 51
84018 PAGANI (SA)
ITALIA
Tel. +39 081 0950329
Fax +39 081 0950578
email: info@mftitalia.com

Macchina: RONDELLATRICE MW-R2	Commessa		N. cliente
Gruppo:	N. dis. gruppo: -		Quantità: -
Particolare: MECHANISM OF MALTA CROSS	Disegno: MUM 70802.00004		REV.
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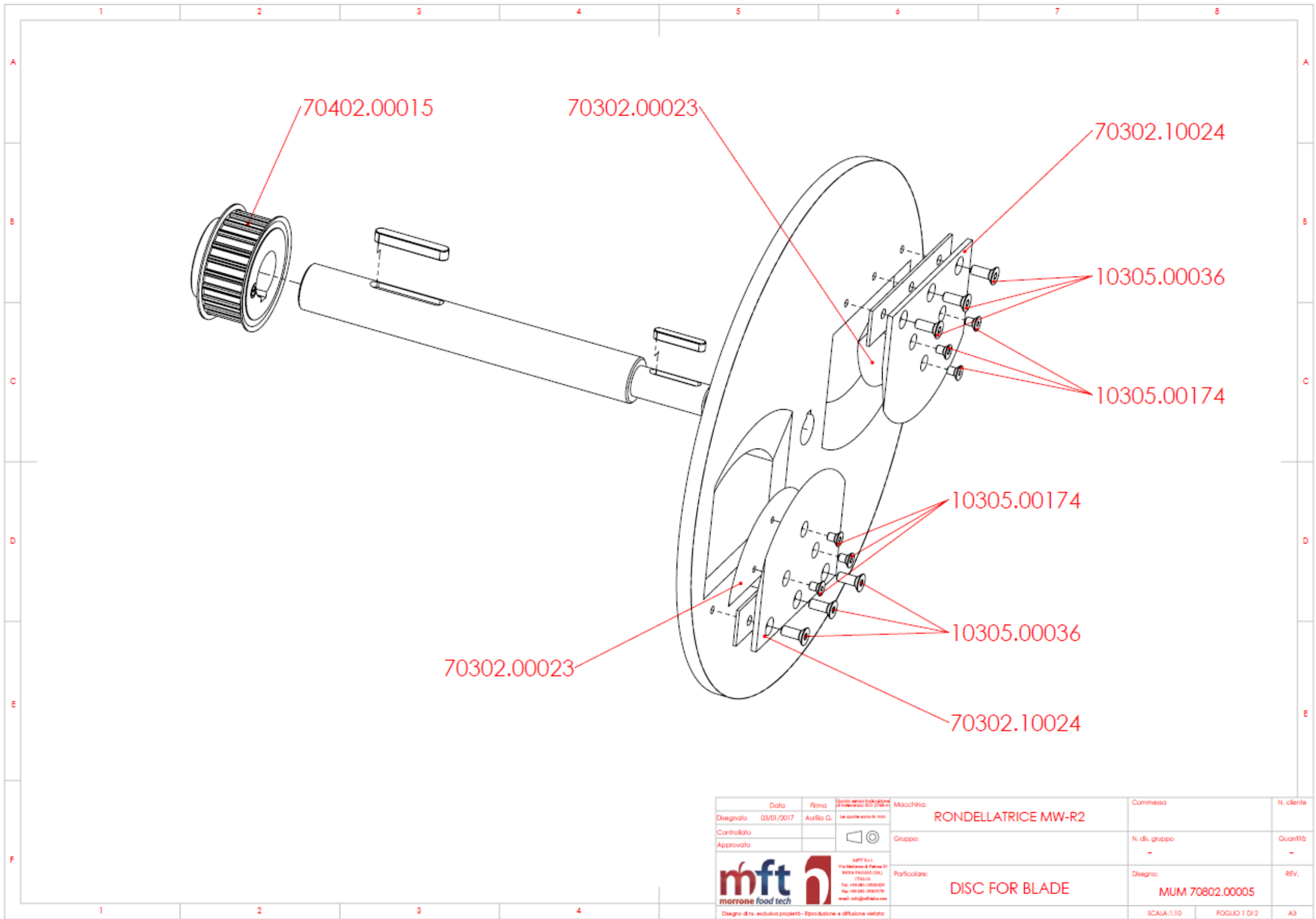

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Disegnato	03/01/2017	Aurilia G.	
Controllato			
Approvato			

Macchina: RONDELLATRICE MW-R2
Commessa
N. cliente
Gruppo:
N. dis. gruppo: -
Quantità: -
Particolare: DISC FOR BLADE
Disegno: MUM 70802.00005
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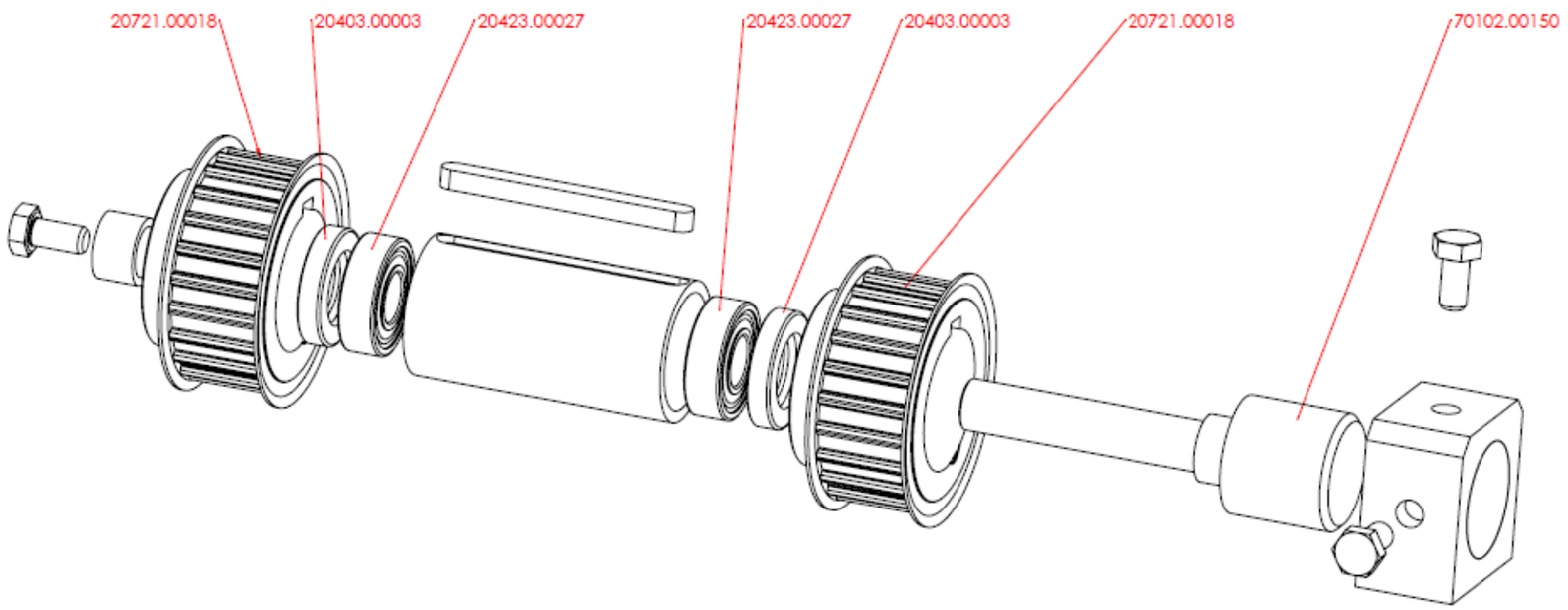
SCALA:1:10 FOGLIO 1 DI 2 A3

morrone food tech



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Disegnato	03/01/2017	Aurilia G.	Le quote sono in mm
Controllato			
Approvato			

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Macchina: RONDELLATRICE MW-R2	Commessa	N. cliente
Gruppo:	N. dis. gruppo: -	Quantità: -
Particolare: TRANSFER FOR DOUBLE BELT	Disegno: MUM 70802.00006	REV.
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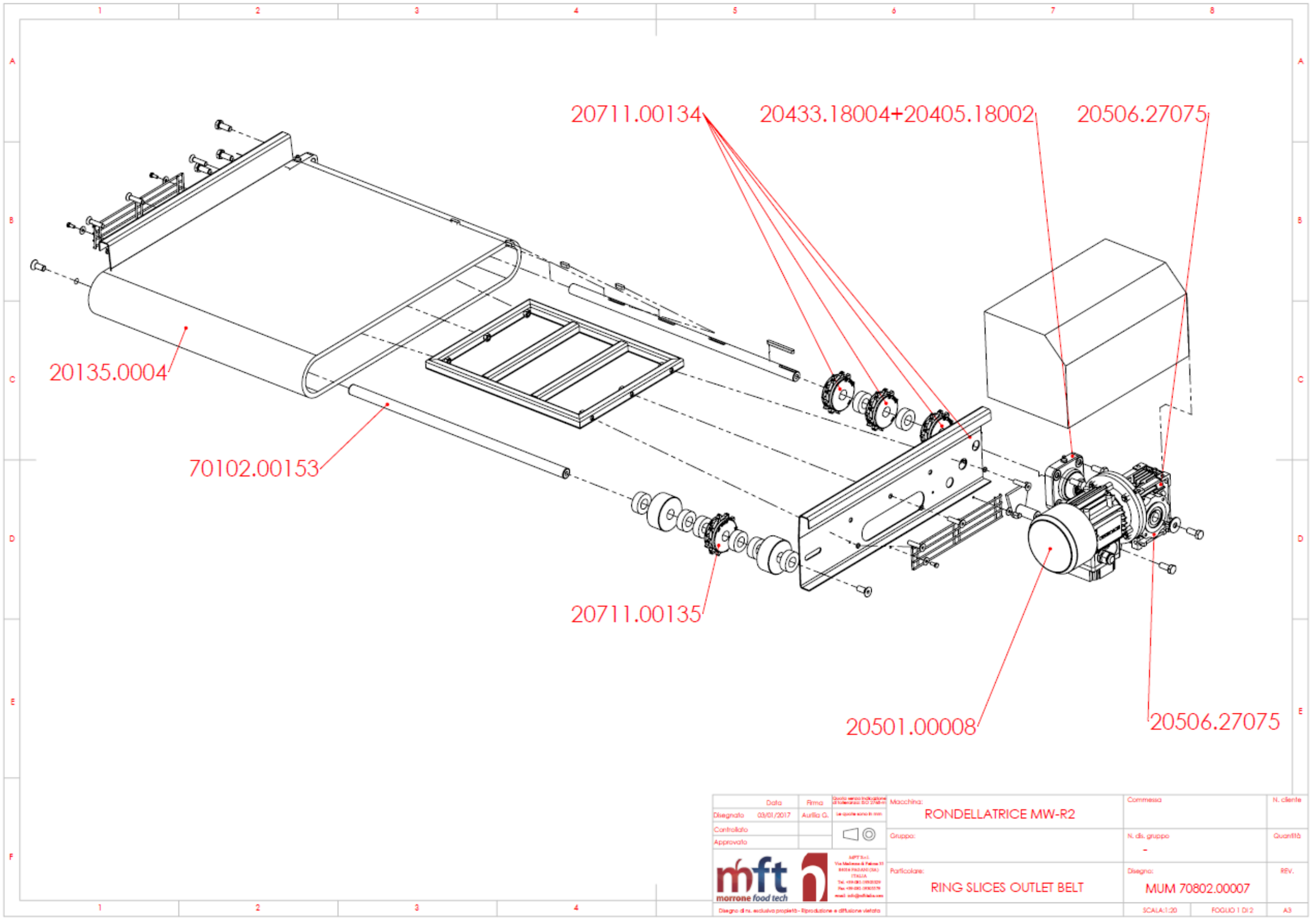
Disegno di ns. esclusiva proprietà - Riproduzione e diffusione vietata



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Disegnato	03/01/2017	Aurilia G.			
Controllato			Gruppo:	N. dis. gruppo -	Quantità
Approvato			Particolare: RING SLICES OUTLET BELT	Disegno: MUM 70802.00007	REV.
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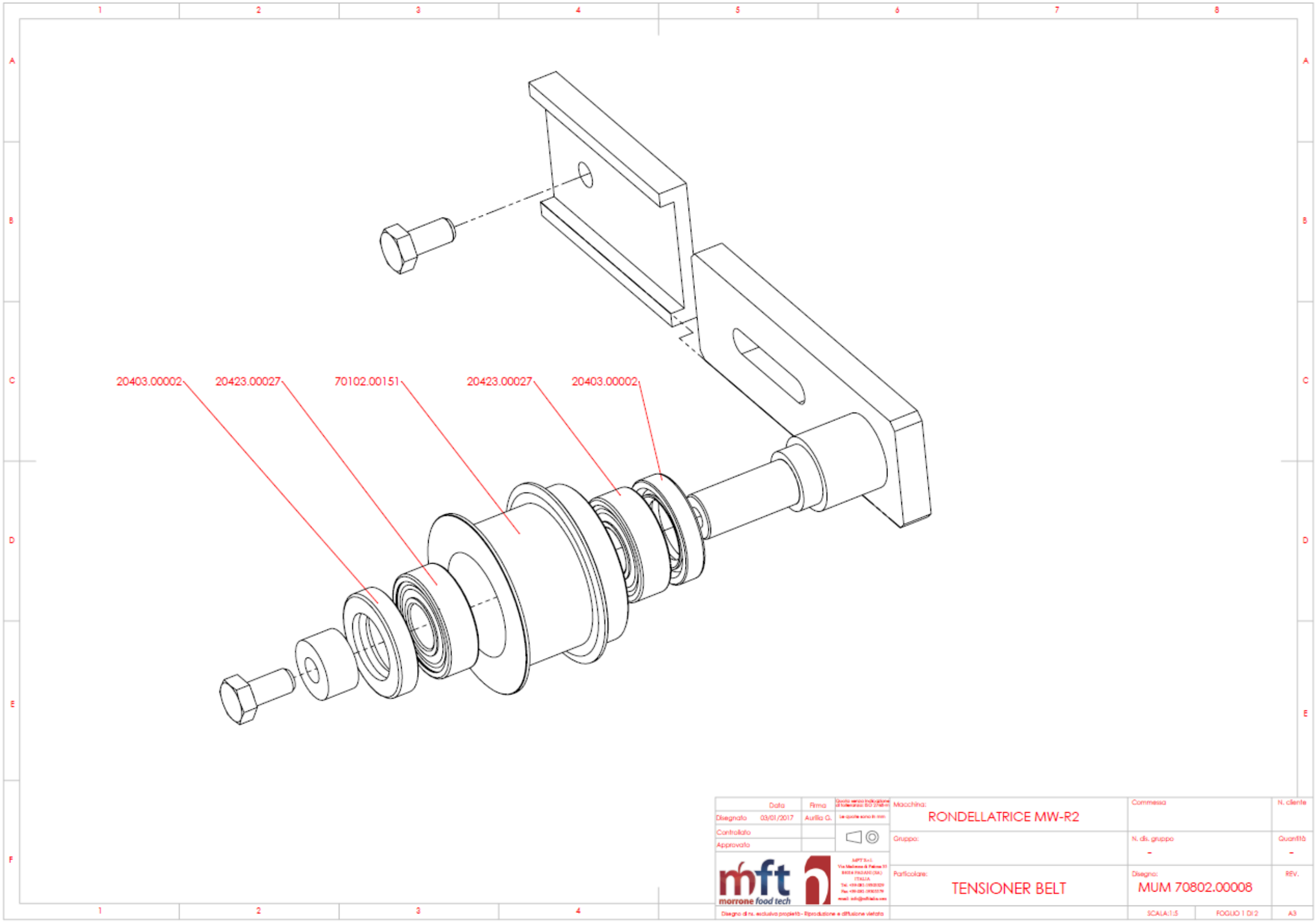

	Data	Firma	
Disegnato	03/01/2017	Aurilia G.	
Controllato			
Approvato			

mft morrone food tech

MFT S.r.l. Via Madonna di Fatima 33 84018 PAGANI (SA) ITALIA Tel. +39 081 5155329 Fax +39 081 5155579 email: info@mftitalia.com

Macchina: RONDELLATRICE MW-R2	Commessa		N. cliente
Gruppo:	N. dis. gruppo: -		Quantità -
Particolare: TENSIONER BELT	Disegno: MUM 70802.00008		REV.
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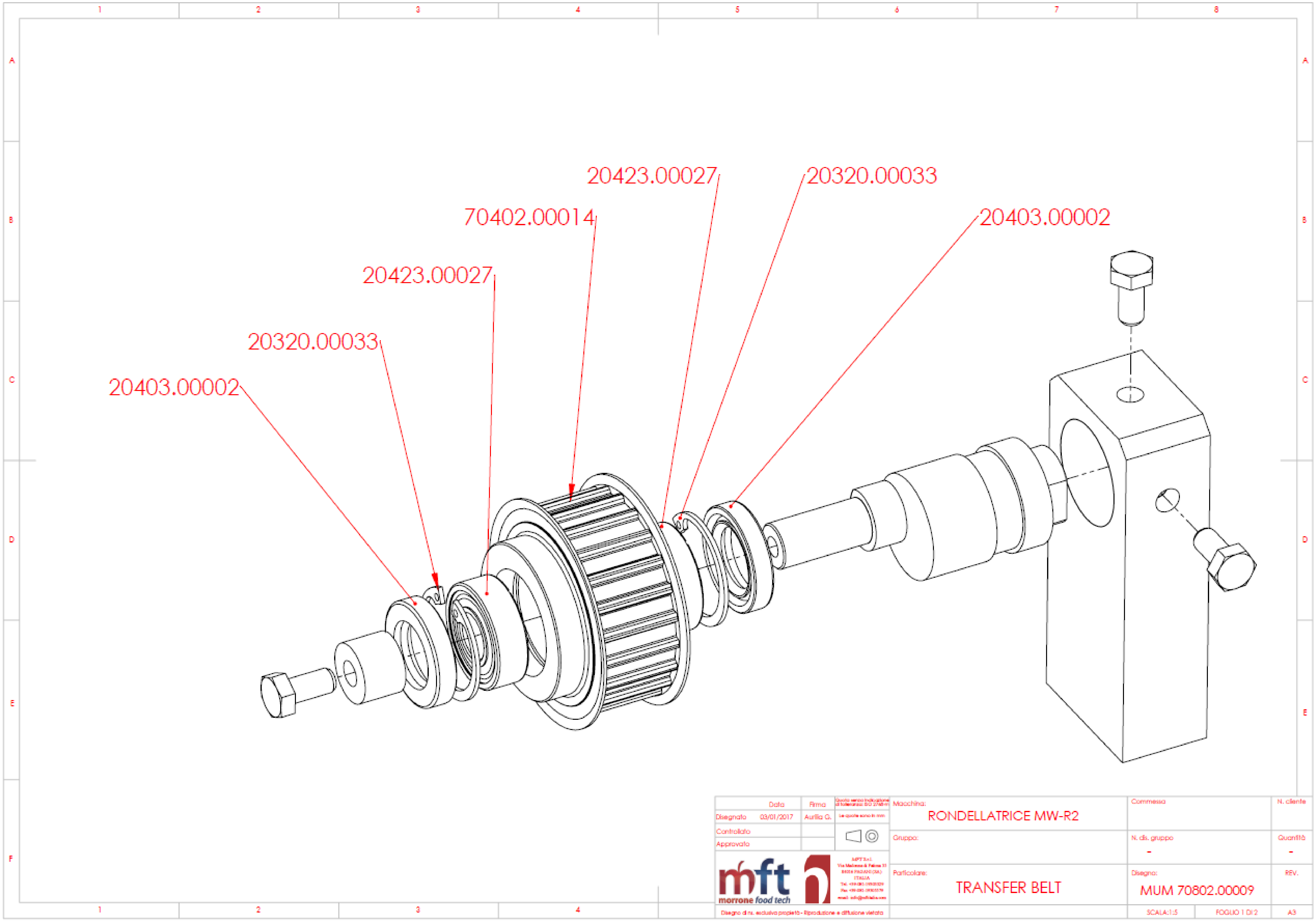
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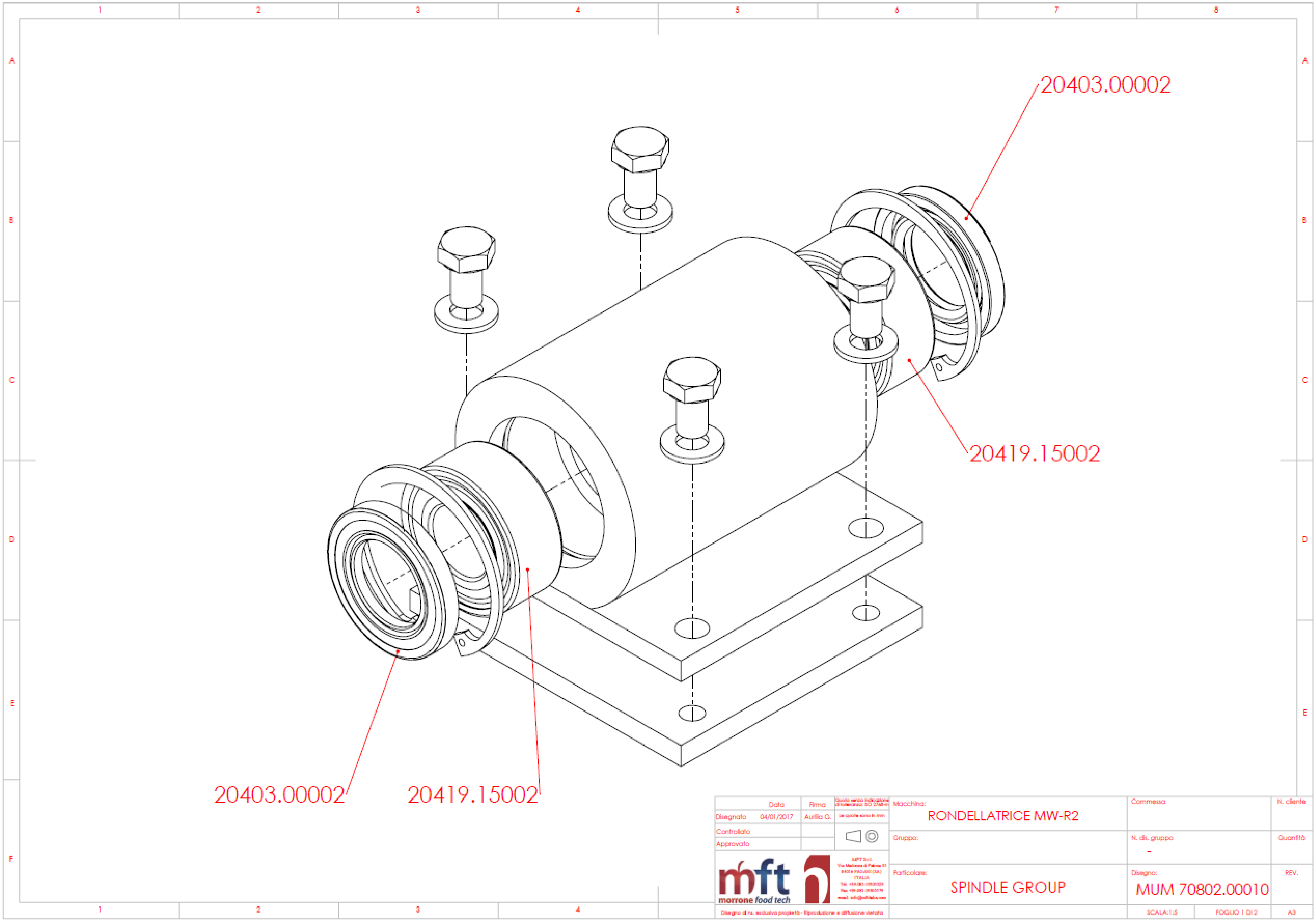
Data
Firma
Disegnato
03/01/2017
Aurilia G.
Controllato
Approvato
morrone food tech
Disegno di ns. esclusiva proprietà - Riproduzione e diffusione vietata
Macchina:
RONDELLATRICE MW-R2
Gruppo:
Particolare:
TRANSFER BELT
Commessa
N. cliente
N. dis. gruppo
-
Quantità
-
Disegno:
MUM 70802.00009
REV.
SCALA:1:5
FOGLIO 1 DI 2
A3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Firma
Disegnato 04/01/2017 Aurilia G.
Controllato
Approvato
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RONDELLATRICE MW-R2
Commessa
N. cliente
Gruppo:
N. dis. gruppo
-
Quantità
Particolare:
SPINDLE GROUP
Disegno:
MUM 70802.00010
REV.
morrone food tech
Disegno di ns. esclusiva proprietà - Riproduzione e diffusione vietata
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FOGLIO 1 DI 2
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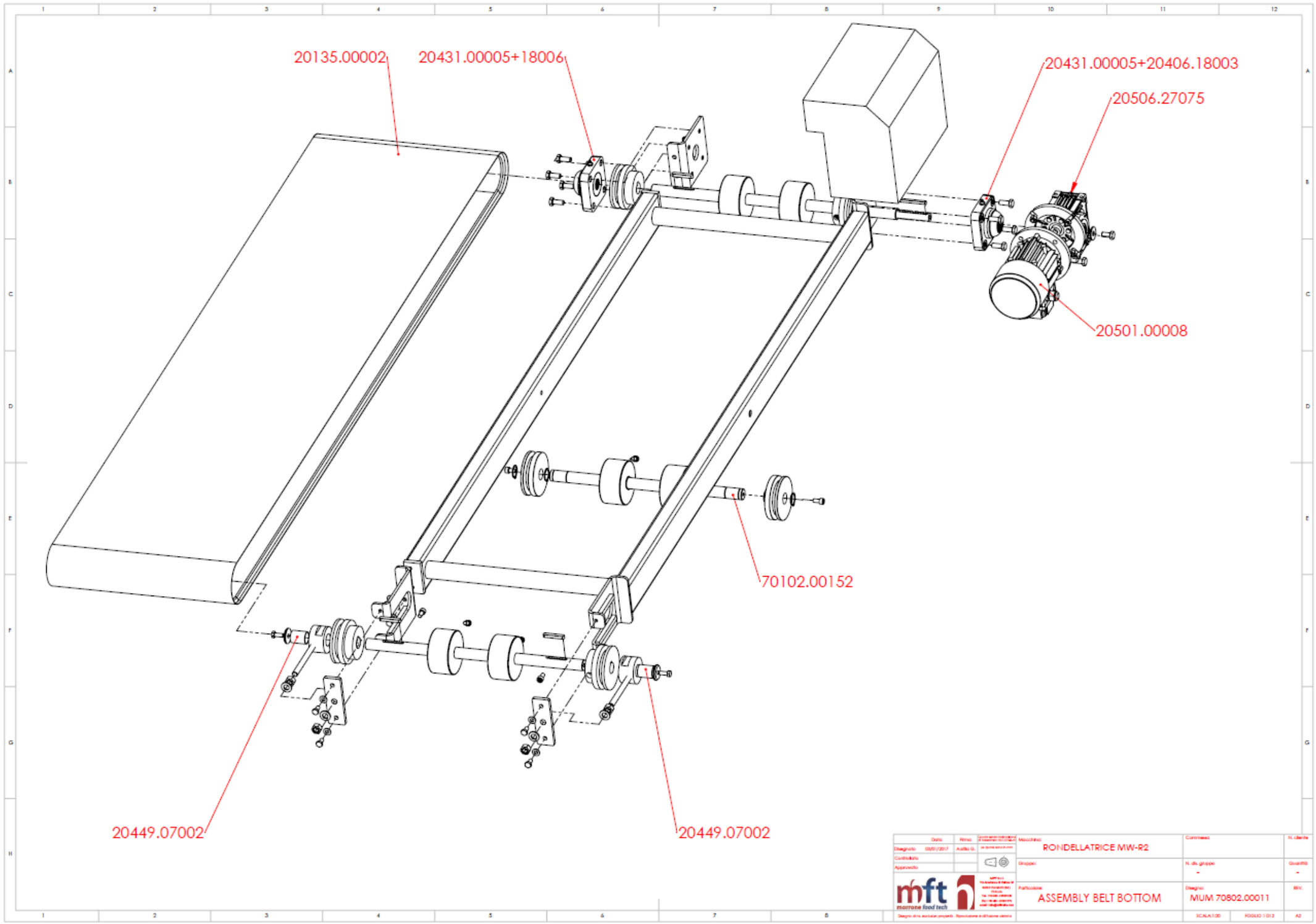
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RONDELLATRICE MW-R2
ASSEMBLY BELT BOTTOM
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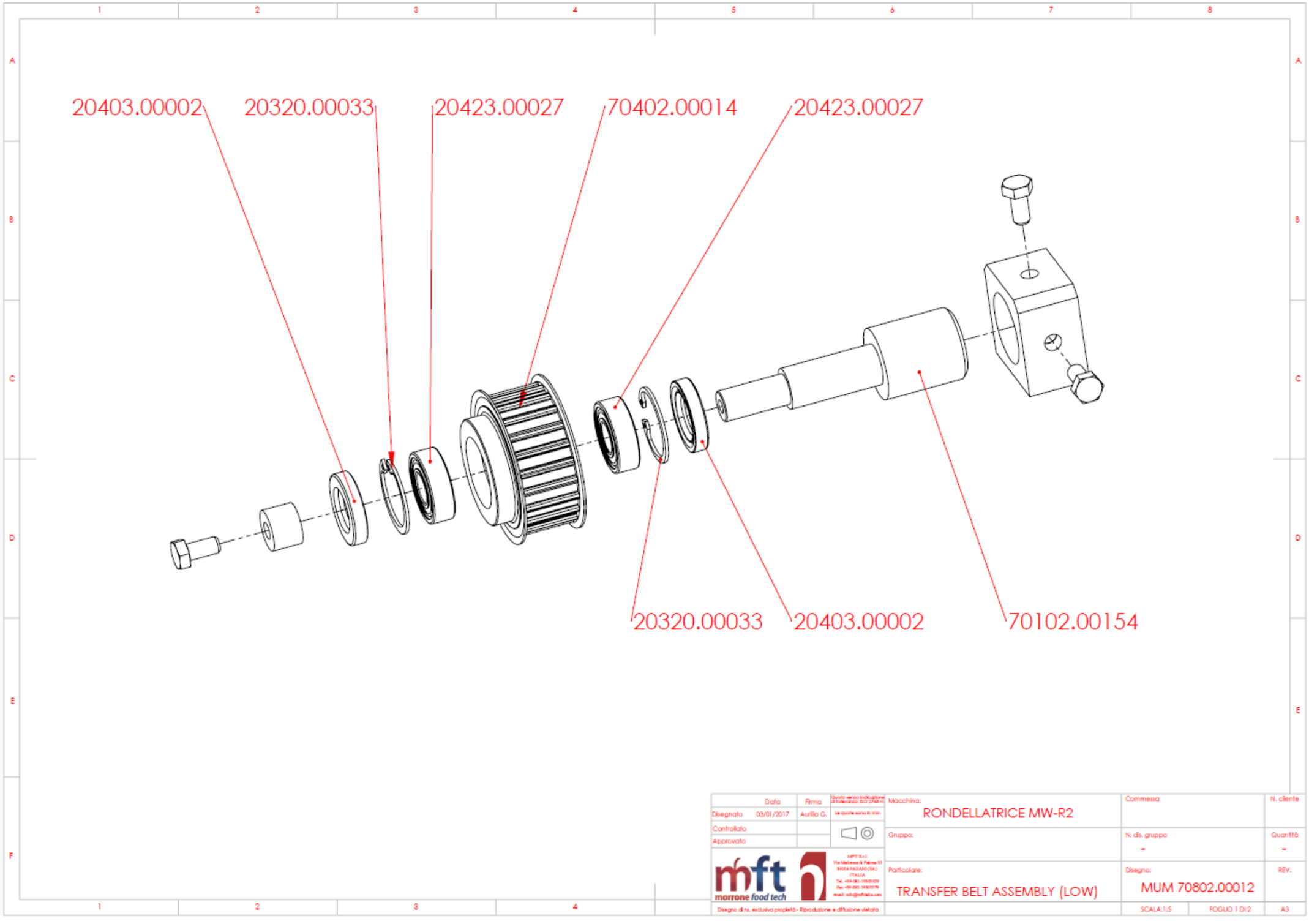
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Data
Firma
Disegnato 03/01/2017 Aurilia G.
Controllato
Approvato
Macchina: RONDELLATRICE MW-R2
Commessa
N. cliente
Gruppo:
N. dis. gruppo -
Quantità -
Particolare: TRANSFER BELT ASSEMBLY (LOW)
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REV.
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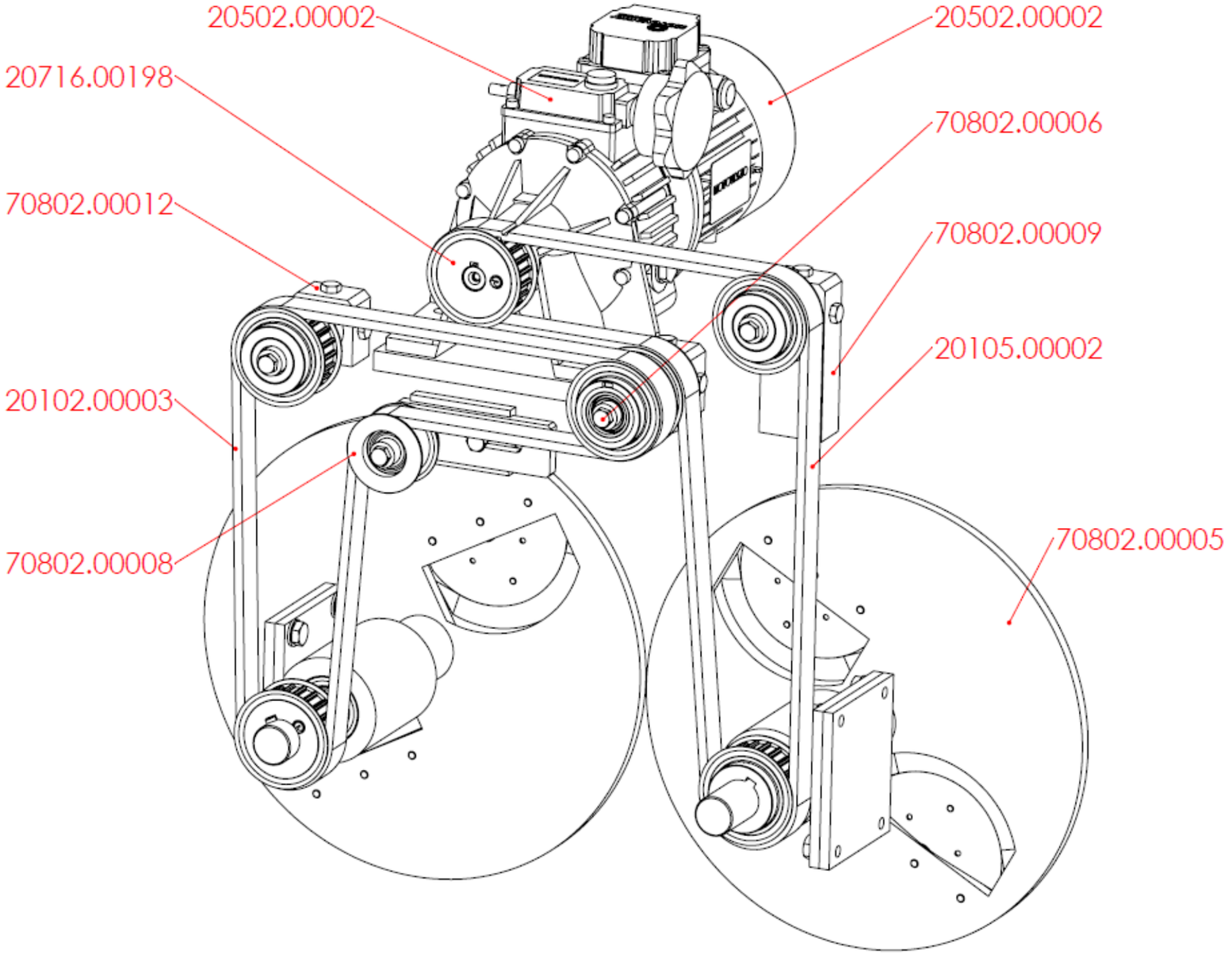
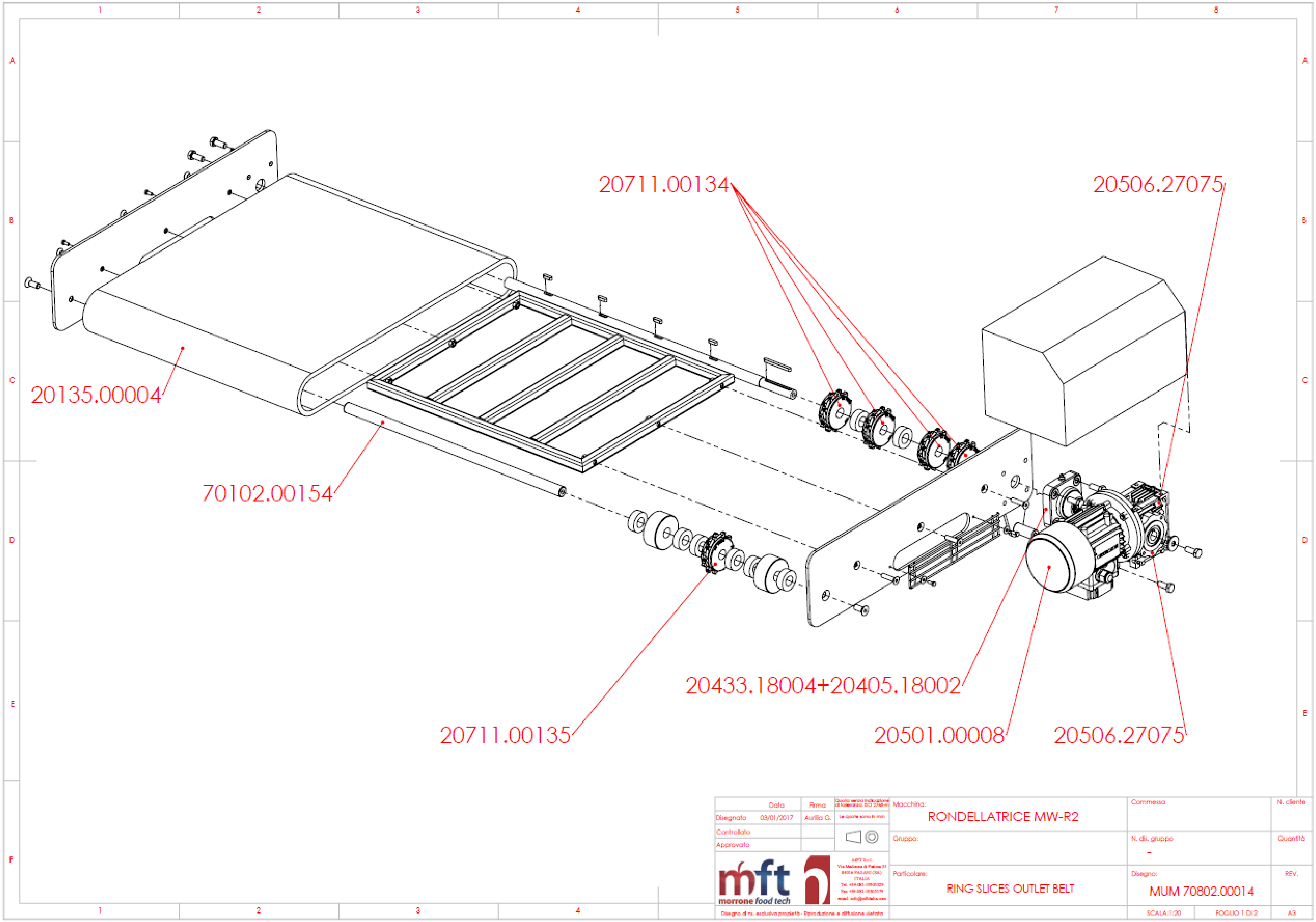
FOGLIO 1 DI 2
A3
morrone food tech



	Data	Firma	
Disegnato	03/01/2017	Aurilia G.	
Controllato			
Approvato			

Macchina: RONDELLATRICE MW-R2
Commessa:
N. cliente:
Gruppo:
N. dis. gruppo: -
Quantità: -
Particolare: KNIVES DISC ASSEMBLY
Disegno: MUM 70802.00013
REV.
SCALA:1:20 FOGLIO 1 DI 2 A3

morrone food tech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Macchina:
RONDELLATRICE MW-R2
Disegnato 03/01/2017 Aurilia G.
Controllato
Approvato
Particolare:
RING SLICES OUTLET BELT
Disegno:
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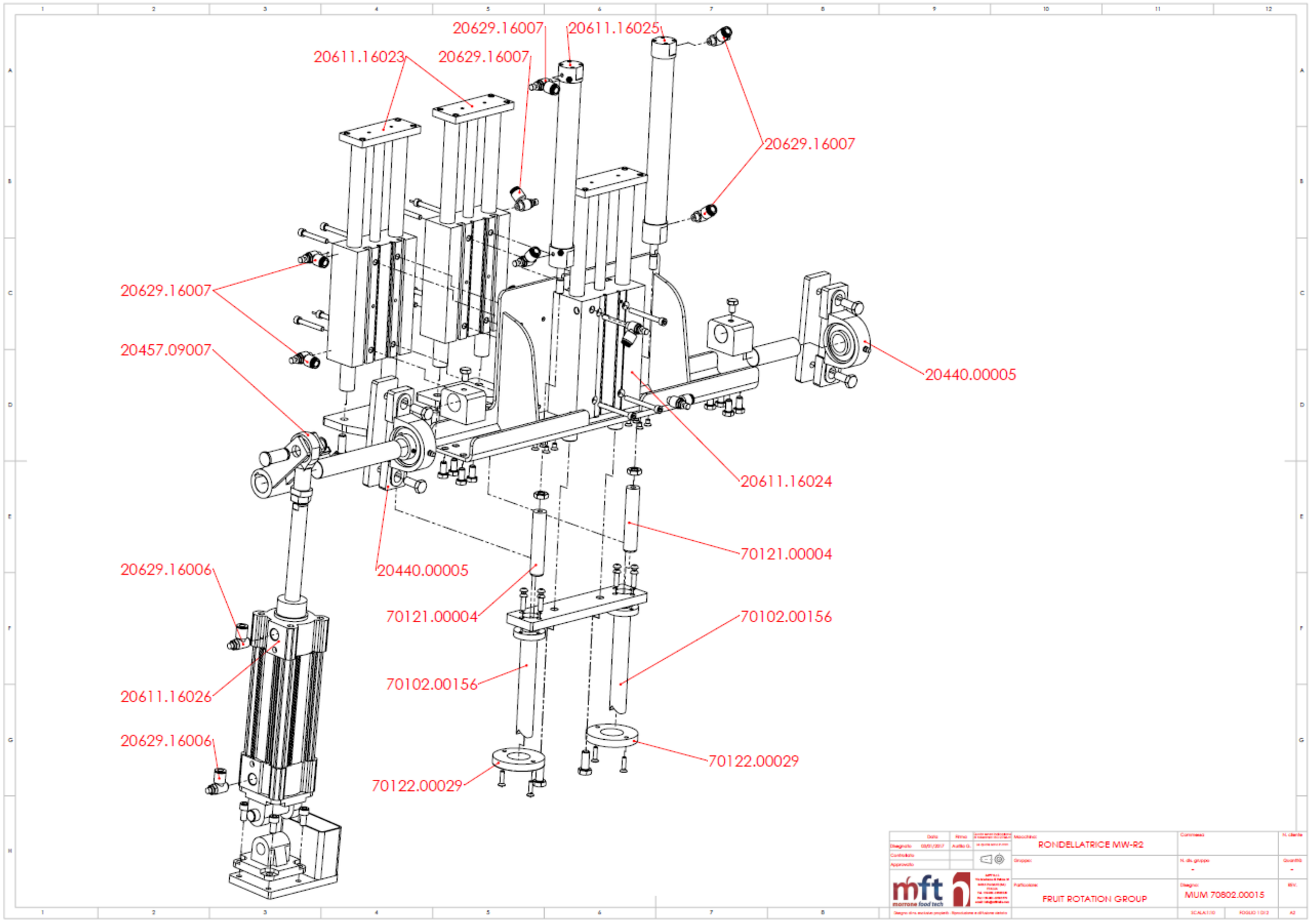
SCALA:1:20
FOGLIO 1 DI 2
A3
morrone food tech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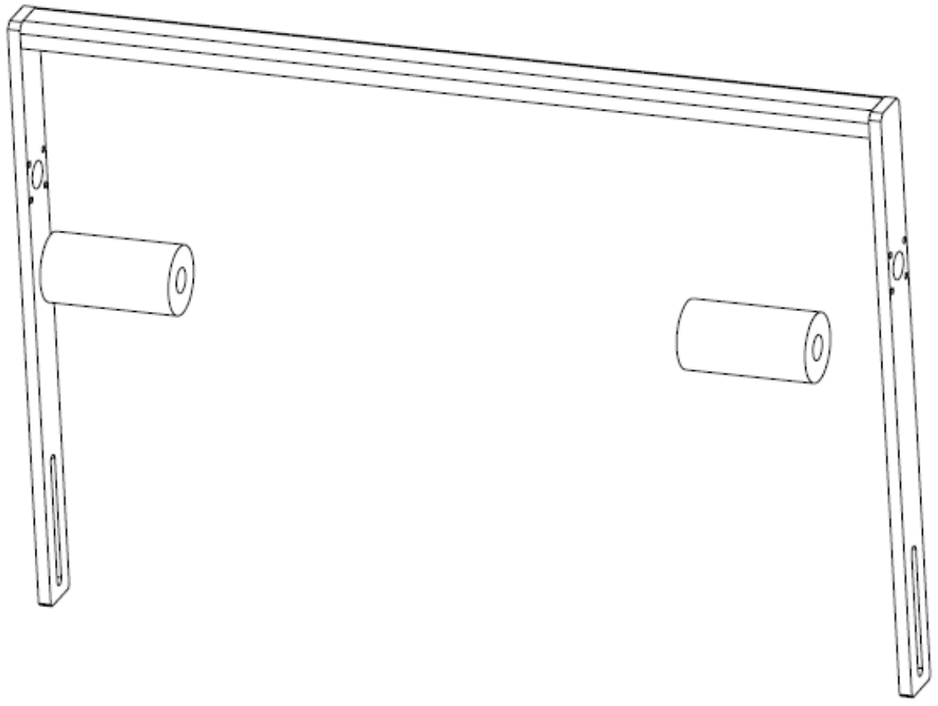
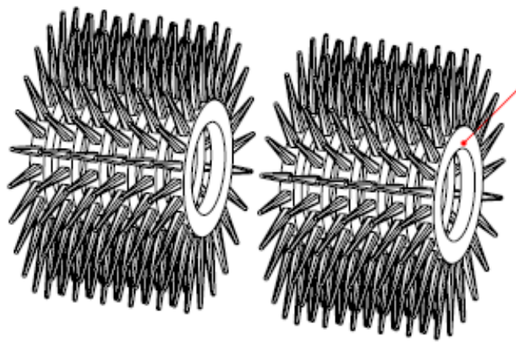
RONDELLATRICE MW-R2
FRUIT ROTATION GROUP
MUM 70802.00015



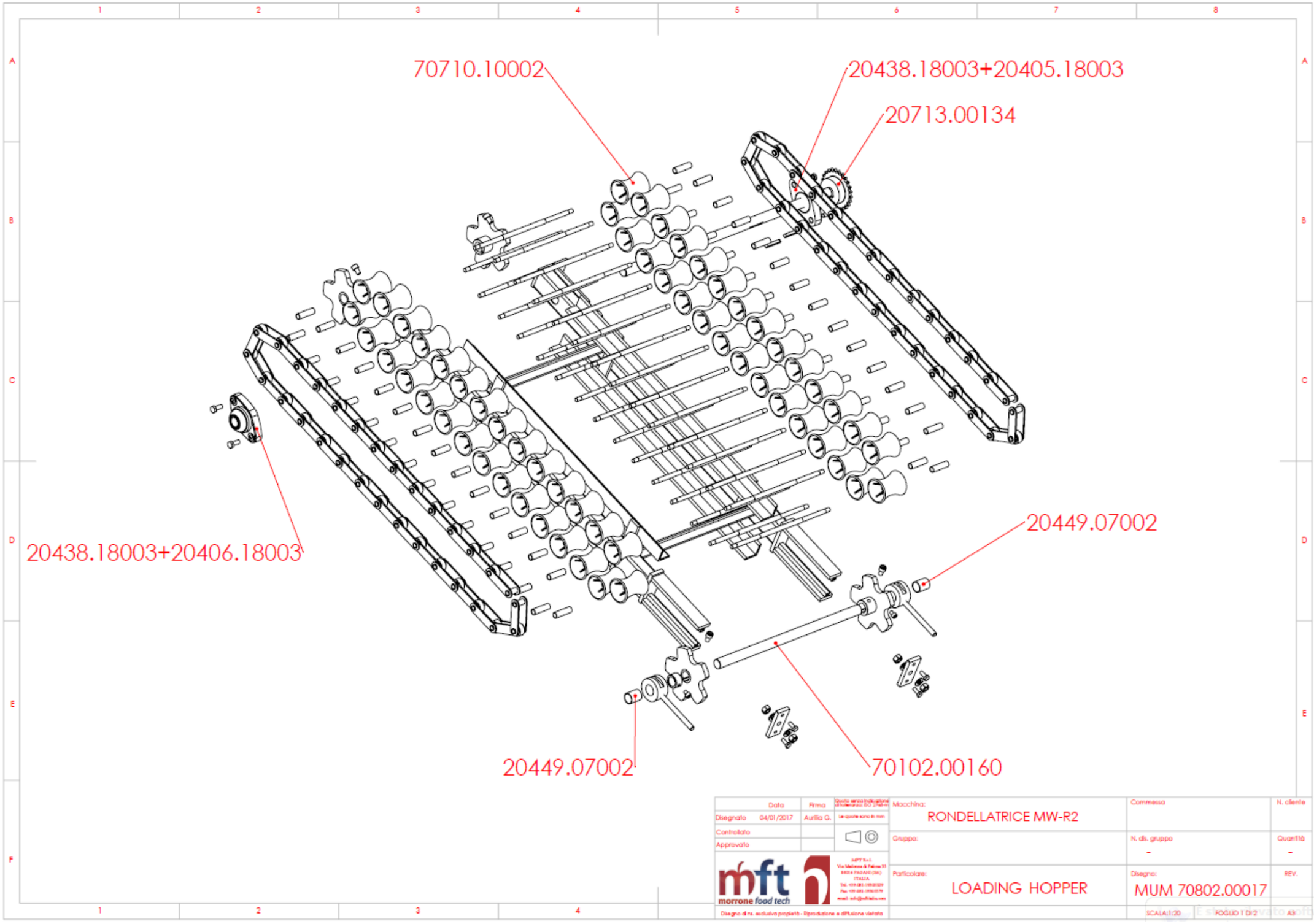


	Data	Firma	
Disegnato	04/01/2017	Aurilia G.	Le quote sono in mm
Controllato			
Approvato			

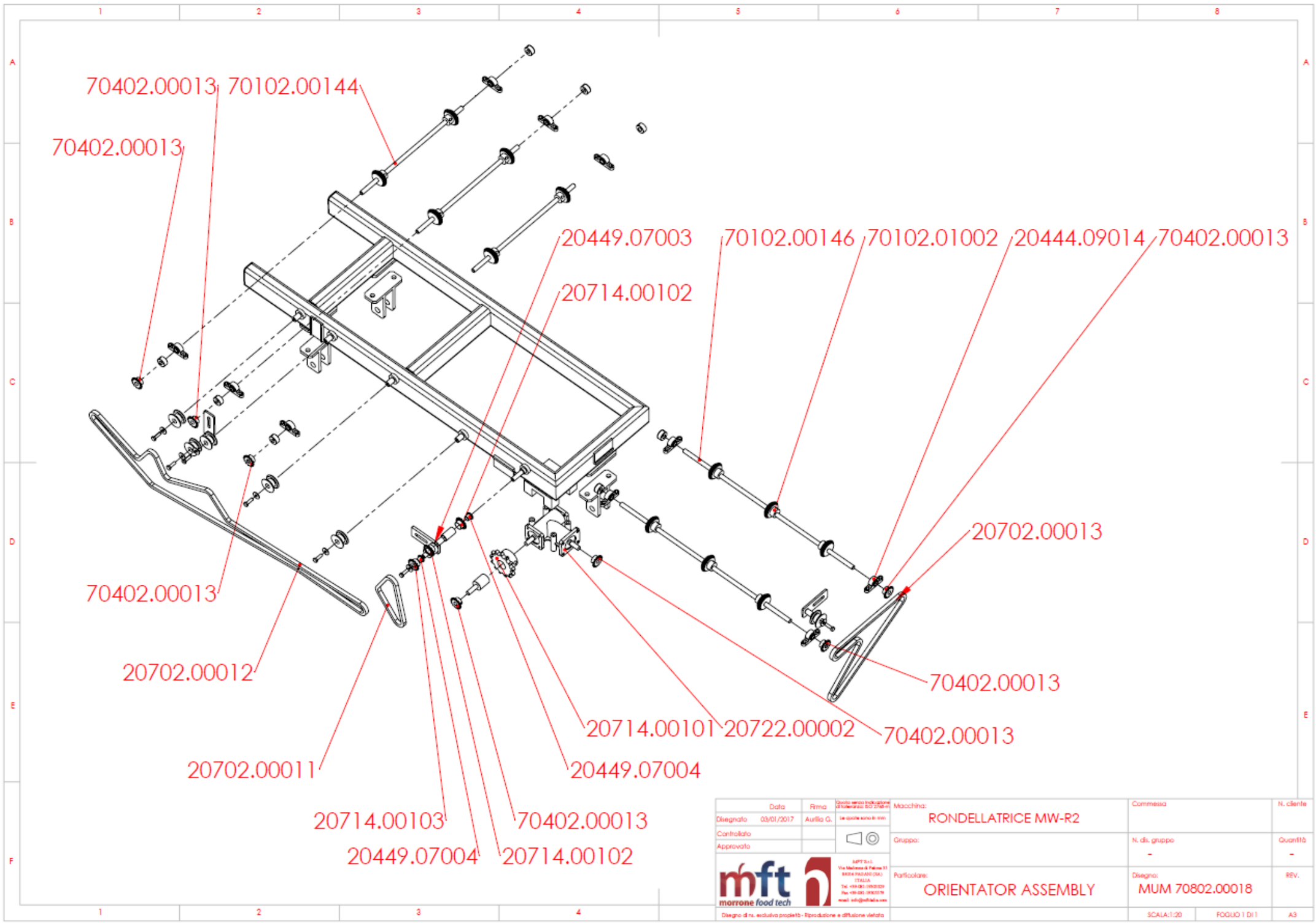
mft morrone food tech

MFT S.r.l.
Via Madonna di Fatima 33
84018 PAGANI (SA)
ITALIA
Tel. +39 081 0950329
Fax +39 081 0950579
email: info@mftitalia.com

Macchina: RONDELLATRICE MW-R2	Commessa		N. cliente
Gruppo:	N. dis. gruppo: -		Quantità: -
Particolare: BRUSH ASSEMBLY	Disegno: MUM 70802.00016		REV.
Disegno di ns. esclusiva proprietà - Riproduzione e diffusione vietata	SCALA:1:10	FOGLIO 1 DI 2	A3



	Data	Firma		Macchina: RONDELLATRICE MW-R2	Commessa	N. cliente
Disegnato	04/01/2017	Aurilia G.	Le quote sono in mm			
Controllato				Gruppo:	N. dis. gruppo: -	Quantità: -
Approvato				Particolare: LOADING HOPPER	Disegno: MUM 70802.00017	REV.
					SCALA:1:20	FOGLIO 1 DI 2 A3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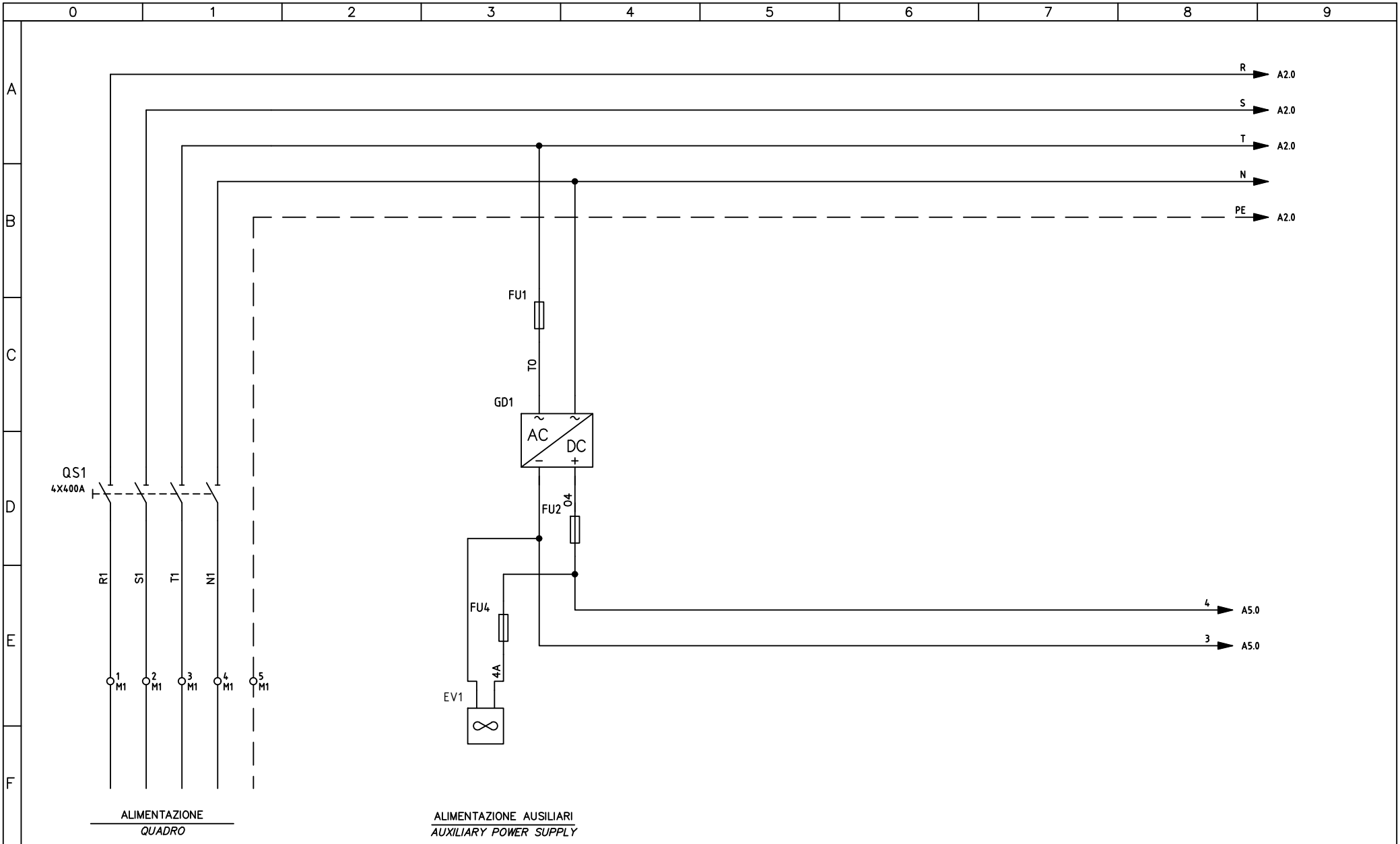
20714.00102
Data
Firma
Disegnato 03/01/2017 Aurilia G.
Controllato
Approvato
Macchina: RONDELLATRICE MW-R2
Commessa
N. cliente
Gruppo:
N. dis. gruppo -
Quantità -
Particolare: ORIENTATOR ASSEMBLY
Disegno: MUM 70802.00018
REV.
SCALA:1:20
FOGLIO 1 DI 1
A3
Disegno di ns. esclusiva proprietà - Riproduzione e diffusione vietata

MFT

Sear	SEAR Società Cooperativa Via Semetelle, 26 84012 Angri (SA)	Dis. N. 0588 CAD SEAR Nome File SEAR_E058800 Data 13/08/2020	Impianto *SCHEMA ELETTRICO RONDELLATRICE* Denominazione PERANI	Ordine MFT Commessa SEAR_E0588 Esecutore PETTI DARIO	Modello Matricola Anno Costruzione 2020	FOGLIO 1 SEGUE A1



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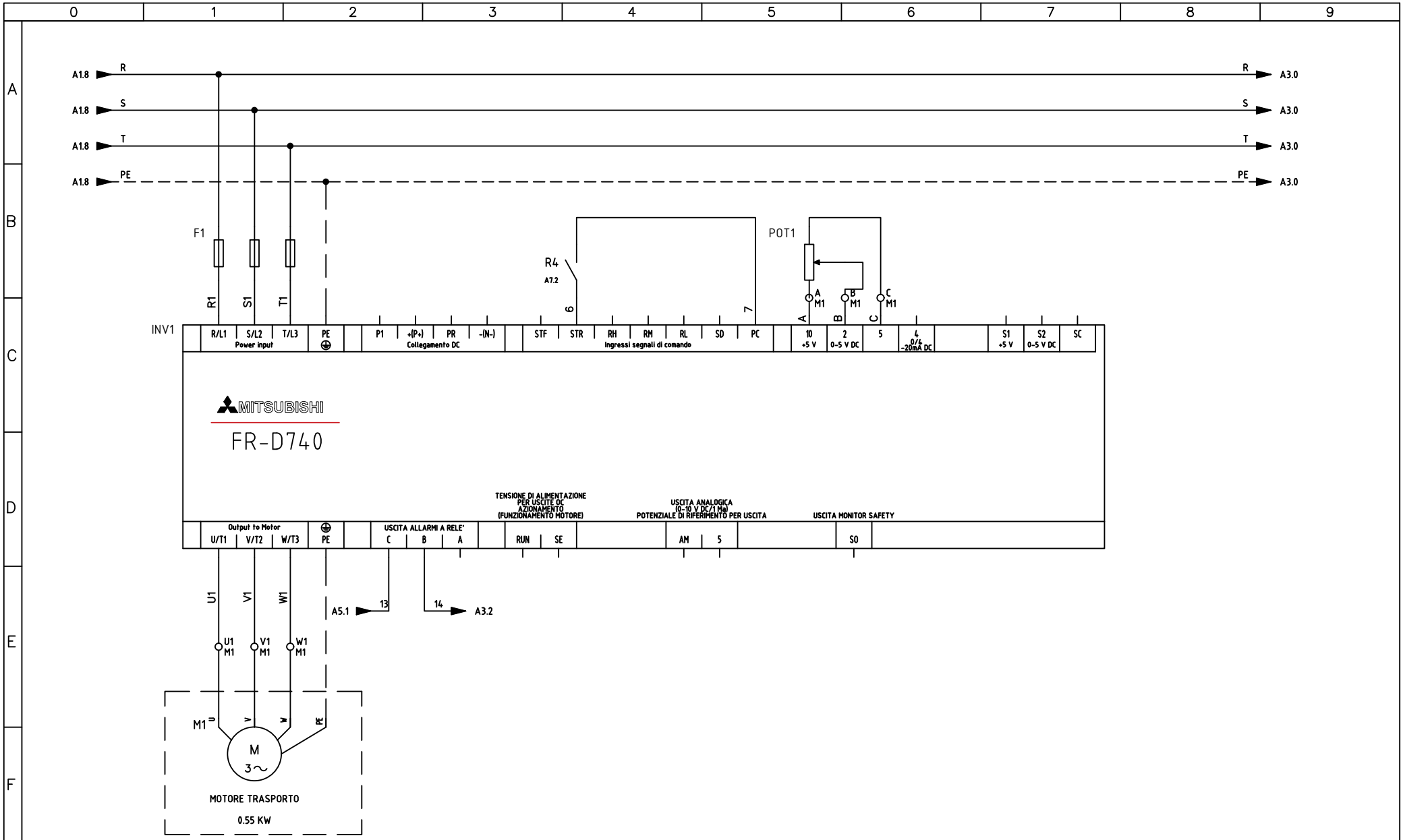

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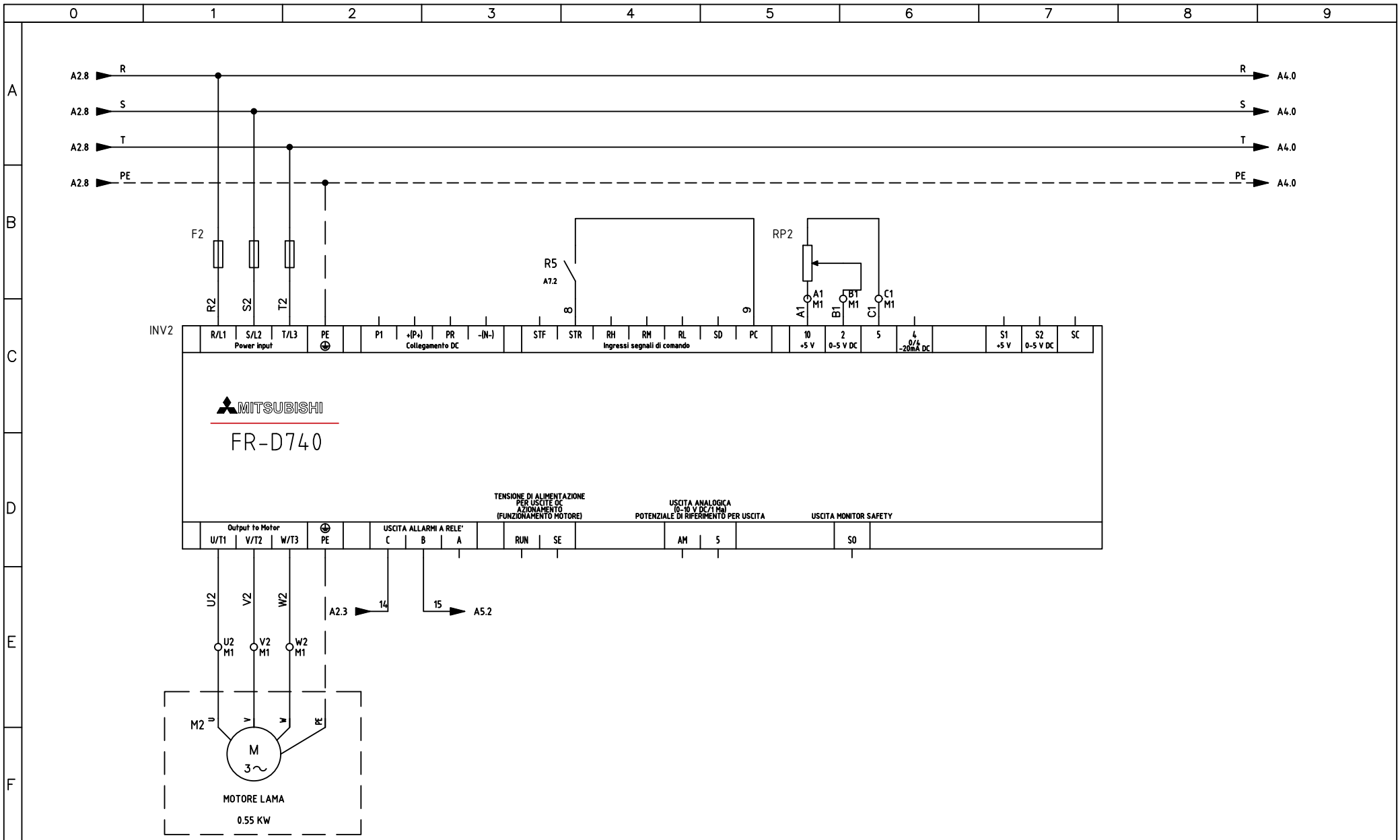

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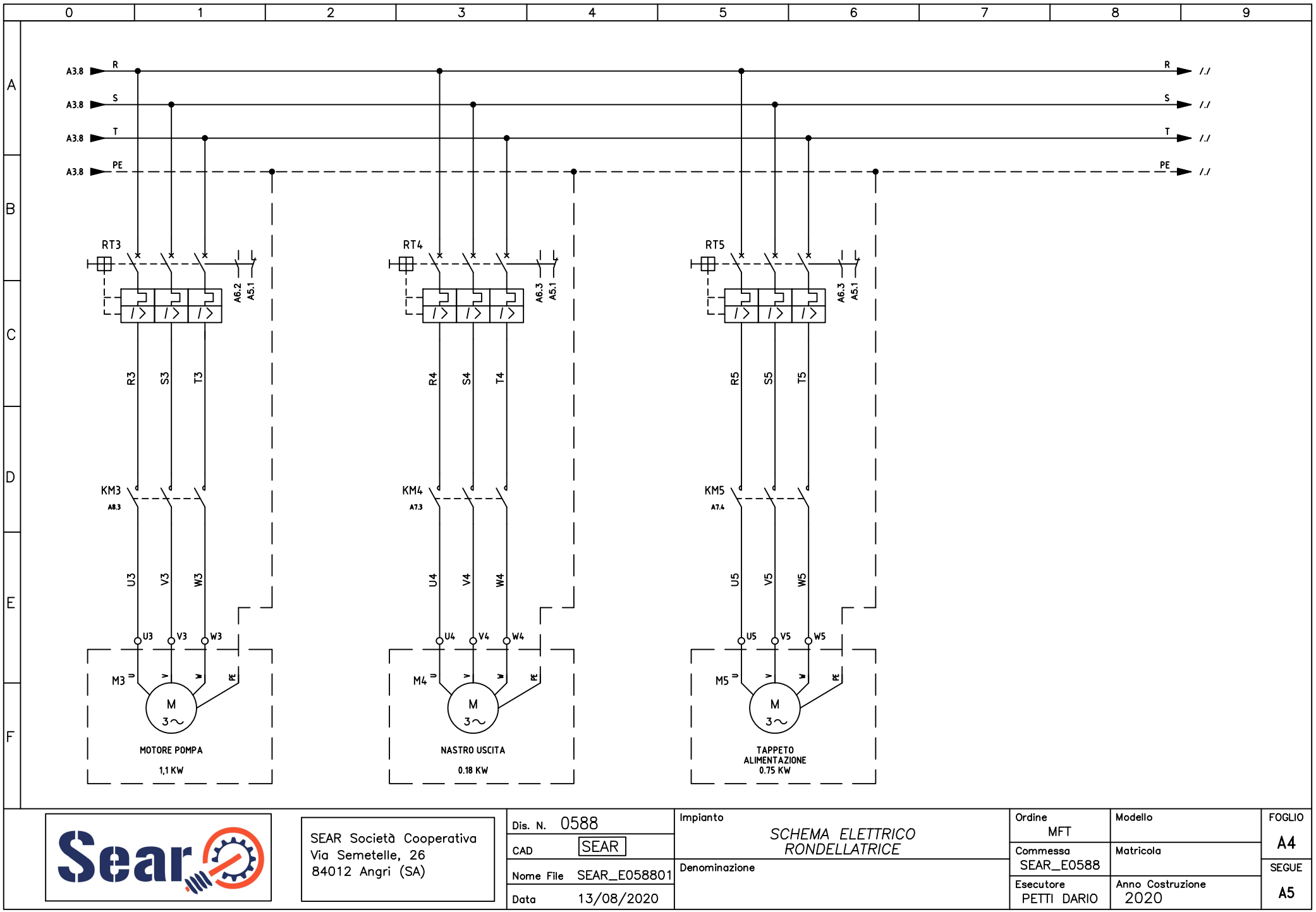

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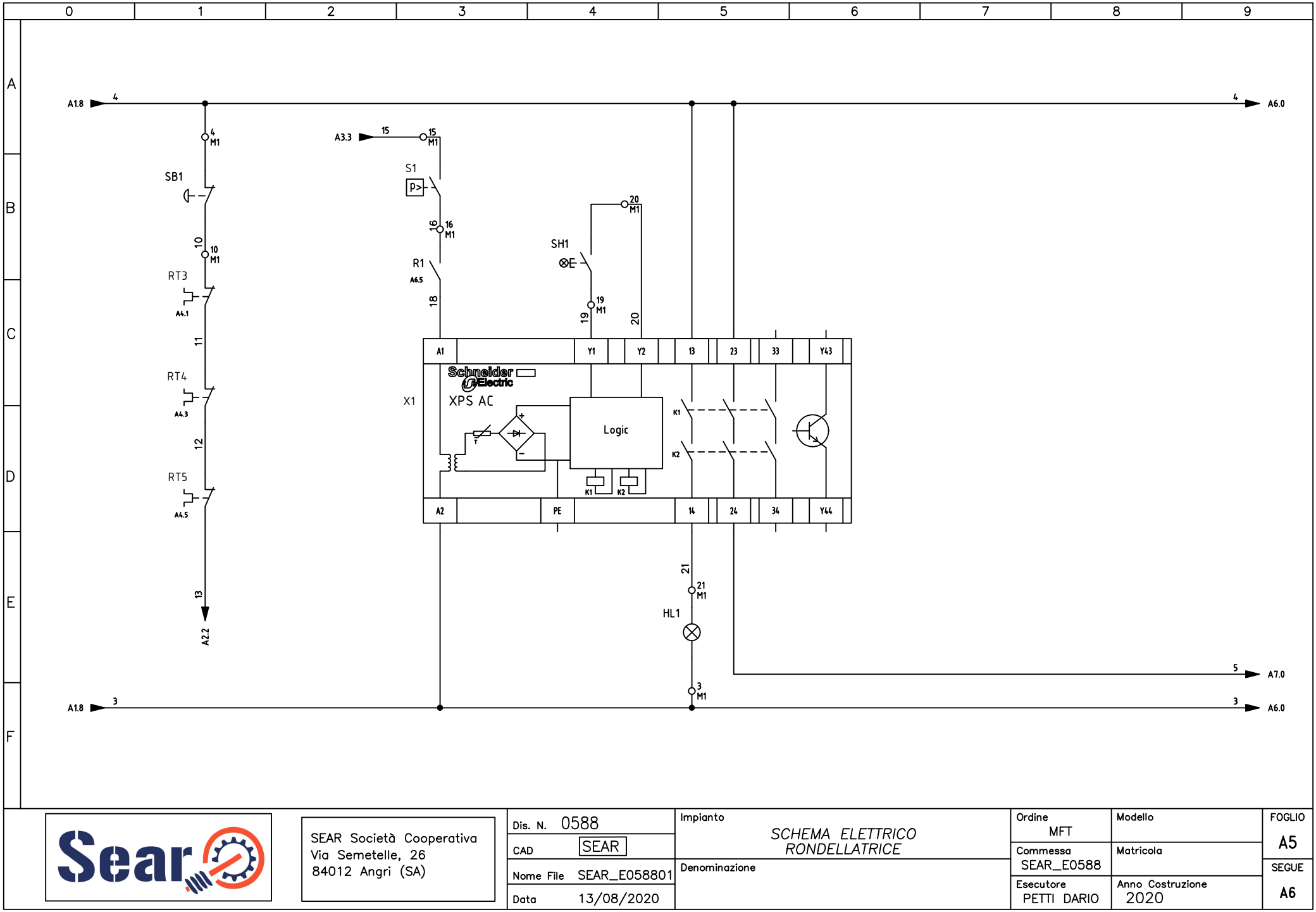

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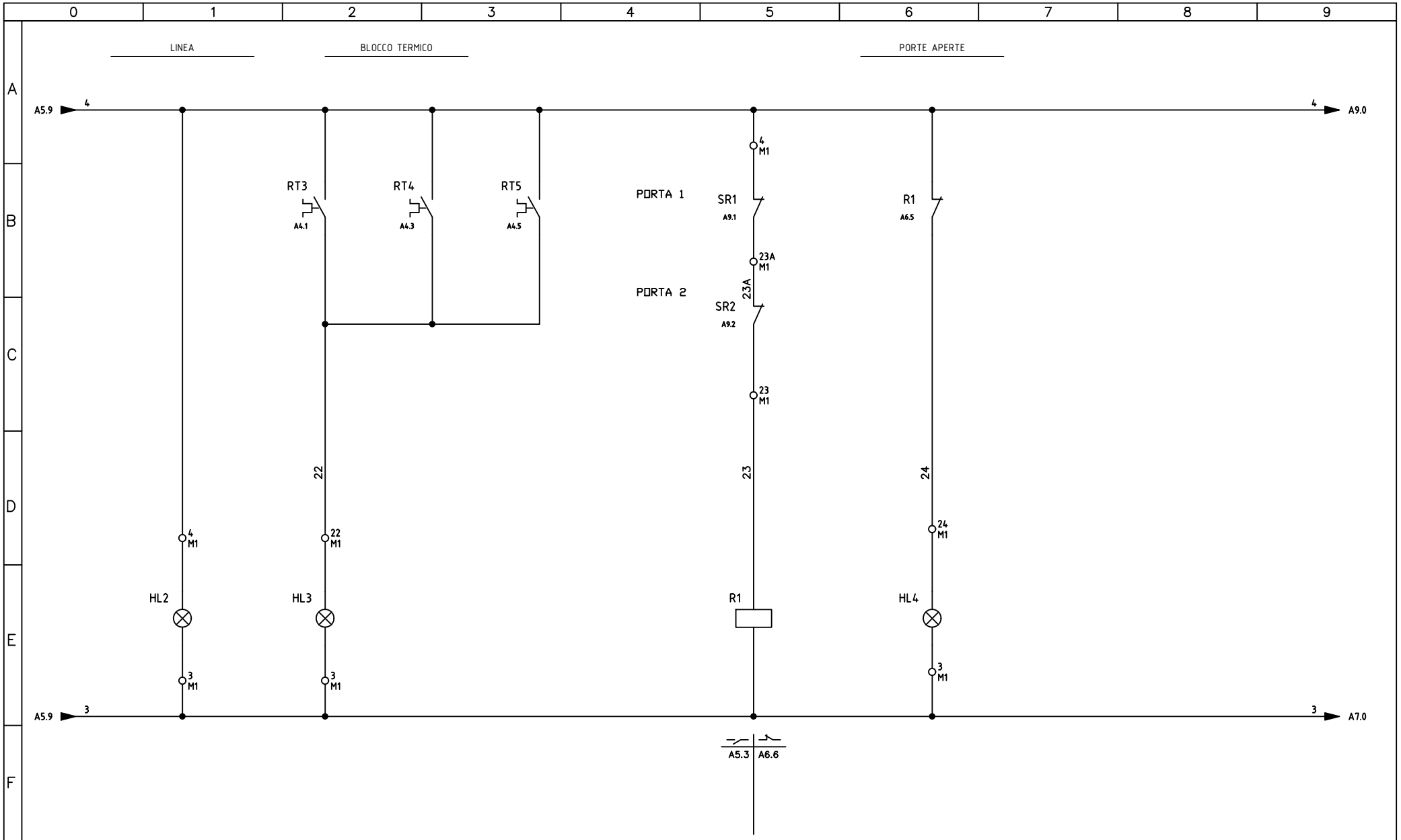

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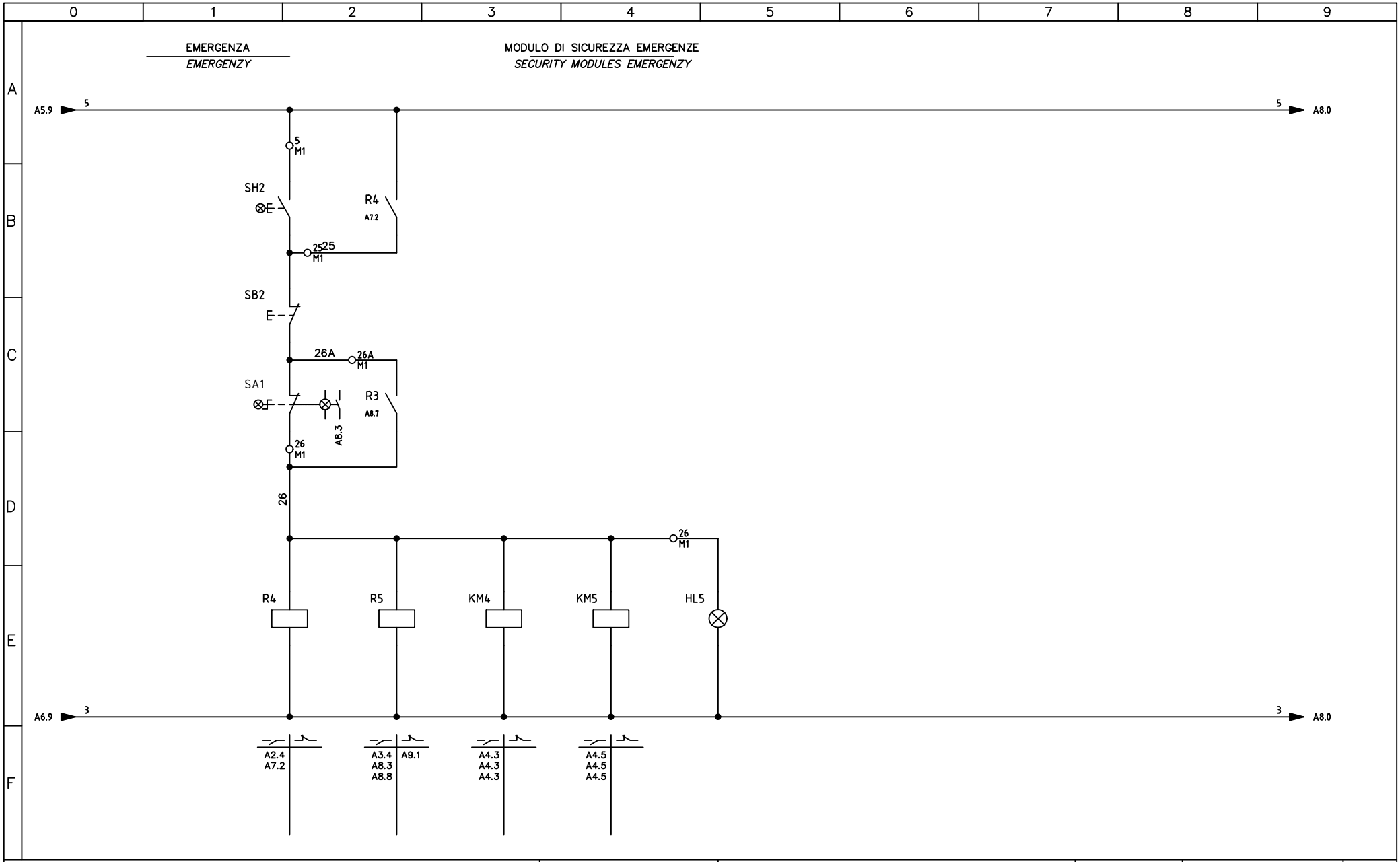
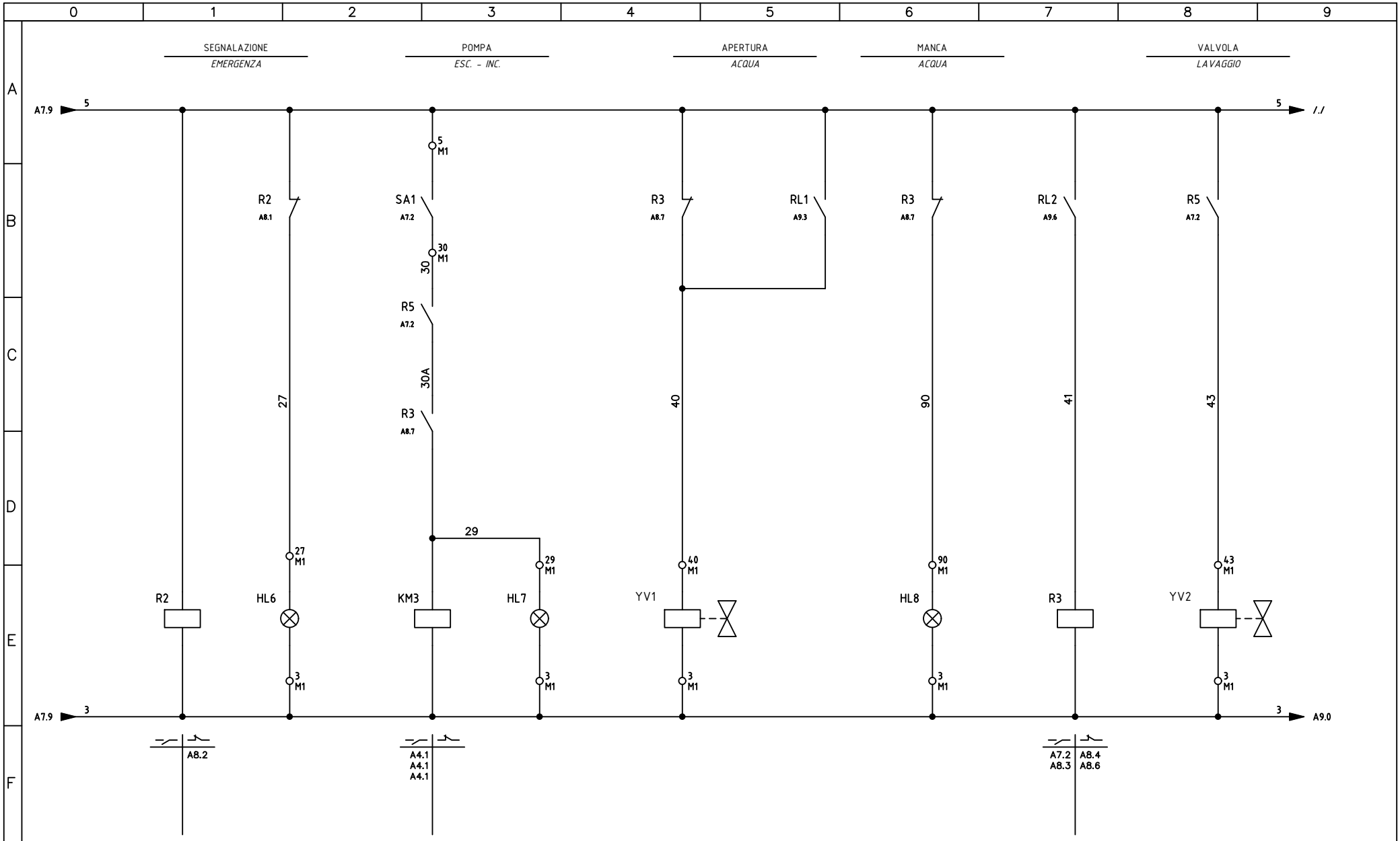


SEAR Società Cooperativa Via Semetelle, 26 84012 Angri (SA)	Dis. N. 0588	Impianto SCHEMA ELETTRICO RONDELLATRICE	Ordine MFT	Modello	FOGLIO A7
	CAD SEAR		Commessa SEAR_E0588	Matricola	SEGUE A8
	Nome File SEAR_E058801	Denominazione	Esecutore PETTI DARIO	Anno Costruzione 2020	
	Data 13/08/2020				



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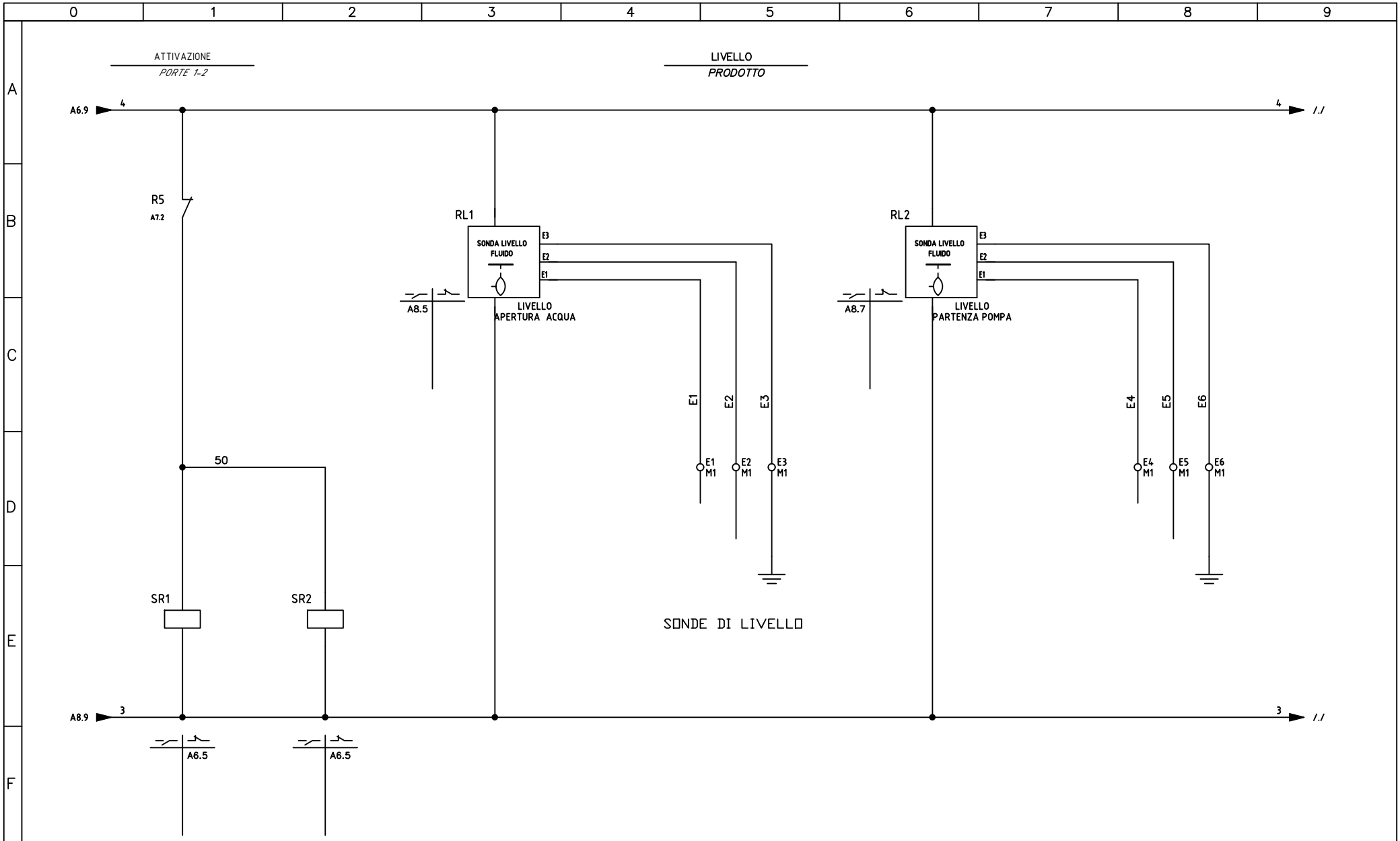

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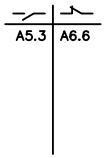
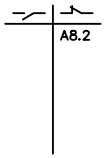
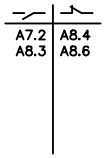
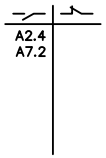
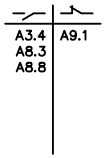
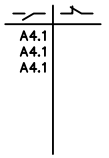
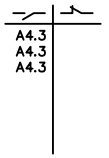
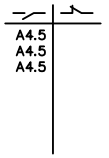
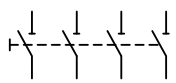
LISTA CROSS REFERENCE \ CROSS REFERENCE LIST

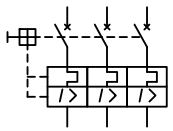
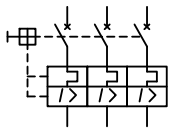
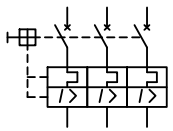
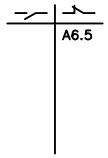
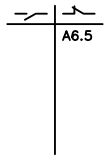
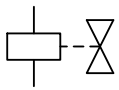
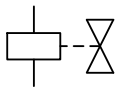
Simbolo \ Symbol	Reference	Dati Tecnici \ Technical Data
		Sigla\Item: KR1 Quadro\Board: QG Fg.\Sh.: 6 Tipo \ Type : Costruttore \ Marke: Descrizione \ Device: Bobina rele' Aux Funzione \ Use Type:
		Sigla\Item: KR2 Quadro\Board: QG Fg.\Sh.: 8 Tipo \ Type : Costruttore \ Marke: Descrizione \ Device: Bobina rele' Aux Funzione \ Use Type:
		Sigla\Item: KR3 Quadro\Board: QG Fg.\Sh.: 8 Tipo \ Type : Costruttore \ Marke: Descrizione \ Device: Bobina rele' Aux Funzione \ Use Type:
		Sigla\Item: KR4 Quadro\Board: QG Fg.\Sh.: 7 Tipo \ Type : Costruttore \ Marke: Descrizione \ Device: Bobina rele' Aux Funzione \ Use Type:
		Sigla\Item: KR5 Quadro\Board: QG Fg.\Sh.: 7 Tipo \ Type : Costruttore \ Marke: Descrizione \ Device: Bobina rele' Aux Funzione \ Use Type:
		Sigla\Item: S1 Quadro\Board: QG Fg.\Sh.: 5 Tipo \ Type : Costruttore \ Marke: Descrizione \ Device: Comandato dalla pressione (pressostato) NO Funzione \ Use Type:

Simbolo \ Symbol	Reference	Dati Tecnici \ Technical Data
		Sigla\Item: KM3 Quadro\Board: QG Fg.\Sh.: 8 Tipo \ Type : Costruttore \ Marke: Descrizione \ Device: Bobina contattore Funzione \ Use Type:
		Sigla\Item: KM4 Quadro\Board: QG Fg.\Sh.: 7 Tipo \ Type : Costruttore \ Marke: Descrizione \ Device: Bobina contattore Funzione \ Use Type:
		Sigla\Item: KM5 Quadro\Board: QG Fg.\Sh.: 7 Tipo \ Type : Costruttore \ Marke: Descrizione \ Device: Bobina contattore Funzione \ Use Type:
		Sigla\Item: QS1 Quadro\Board: QG Fg.\Sh.: 1 Tipo \ Type : 120 mmq Costruttore \ Marke: Descrizione \ Device: Sezionatore tetrapolare Funzione \ Use Type: SEZIONATORE
		Sigla\Item: RL1 Quadro\Board: QG Fg.\Sh.: 9 Tipo \ Type : Costruttore \ Marke: Descrizione \ Device: Sonda di Livello Fluido. Funzione \ Use Type: LIVELLO APERTURA ACQUA
		Sigla\Item: RL2 Quadro\Board: QG Fg.\Sh.: 9 Tipo \ Type : Costruttore \ Marke: Descrizione \ Device: Sonda di Livello Fluido. Funzione \ Use Type: LIVELLO PARTENZA POMPA

SEAR Società Cooperativa
Via Semetelle, 26
84012 Angri (SA)

Dis. N. 0588	Impianto: SCHEMA ELETTRICO RONDELLATRICE	Ordine: MFT	Modello:	FOGLIO: B1
CAD: SEAR		Commessa: SEAR_E0588	Matricola:	SEGUE: B2
Nome File: SEAR_E058802	Denominazione:	Esecutore: PETTI DARIO	Anno Costruzione: 2020	
Data: 13/08/2020				

LISTA CROSS REFERENCE \ CROSS REFERENCE LIST

Simbolo \ Symbol	Reference	Dati Tecnici \ Technical Data	Simbolo \ Symbol	Reference	Dati Tecnici \ Technical Data
		Sigla\Item QRT3 Quadro\Board QG Fg.\Sh. 4 Tipo \ Type : Costruttore \ Marke Descrizione \ Device Interr. aut. tripolare con prot. max corrente e termica Funzione \ Use Type			Sigla\Item SH1 Quadro\Board QG Fg.\Sh. 5 Tipo \ Type : Costruttore \ Marke Descrizione \ Device Comando a Pulsante con lampada di segnalazione incorporata NC Funzione \ Use Type
		Sigla\Item QRT4 Quadro\Board QG Fg.\Sh. 4 Tipo \ Type : Costruttore \ Marke Descrizione \ Device Interr. aut. tripolare con prot. max corrente e termica Funzione \ Use Type			Sigla\Item SH2 Quadro\Board QG Fg.\Sh. 7 Tipo \ Type : Costruttore \ Marke Descrizione \ Device Comando a Pulsante con lampada di segnalazione incorporata NC Funzione \ Use Type
		Sigla\Item QRT5 Quadro\Board QG Fg.\Sh. 4 Tipo \ Type : Costruttore \ Marke Descrizione \ Device Interr. aut. tripolare con prot. max corrente e termica Funzione \ Use Type			Sigla\Item SR1 Quadro\Board QG Fg.\Sh. 9 Tipo \ Type : Costruttore \ Marke Descrizione \ Device Bobina rele' Aux Funzione \ Use Type
		Sigla\Item SA1 Quadro\Board QG Fg.\Sh. 7 Tipo \ Type : Costruttore \ Marke Descrizione \ Device Selettore 2 posizioni con lampada di segnalazione incorporata NC Funzione \ Use Type			Sigla\Item SR2 Quadro\Board QG Fg.\Sh. 9 Tipo \ Type : Costruttore \ Marke Descrizione \ Device Bobina rele' Aux Funzione \ Use Type
		Sigla\Item SB1 Quadro\Board QG Fg.\Sh. 5 Tipo \ Type : Costruttore \ Marke Descrizione \ Device Pulsante di emergenza NC Funzione \ Use Type			Sigla\Item YV1 Quadro\Board QG Fg.\Sh. 8 Tipo \ Type : Costruttore \ Marke Descrizione \ Device Elettrovalvola aperta (in chiusura) Funzione \ Use Type
		Sigla\Item SB2 Quadro\Board QG Fg.\Sh. 7 Tipo \ Type : Costruttore \ Marke Descrizione \ Device Comando a Pulsante NC Funzione \ Use Type			Sigla\Item YV2 Quadro\Board QG Fg.\Sh. 8 Tipo \ Type : Costruttore \ Marke Descrizione \ Device Elettrovalvola aperta (in chiusura) Funzione \ Use Type

SEAR Società Cooperativa
Via Semetelle, 26
84012 Angri (SA)

Dis. N.	0588
CAD	SEAR
Nome File	SEAR_E058802
Data	13/08/2020

Impianto: *SCHEMA ELETTRICO RONDELLATRICE*

Denominazione:

Ordine: MFT	Modello:	FOGLIO: B2	
Commessa: SEAR_E0588	Matricola:	SEGUE: /	
Esecutore: PETTI DARIO	Anno Costruzione: 2020		