



# Operational Manual

review 00



## AUTOMATIC DOSING OF PRODUCTS



**NATIONAL**  
E Q U I P M E N T

National Equipment Distributors LLC.  
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Matthews, NC 28105 USA  
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[nationalequipmentdistributors.com](http://nationalequipmentdistributors.com)

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	<b>METALÚRGICA CONVENÇÃO DE ITU LTDA</b> TECNOLOGIA PARA A INDÚSTRIA DE ALIMENTOS Av. Sete Quedas ,1028 -Vila Padre Bento - CEP:13313-006 Itu - São Paulo -Brasil Fone : (11) 4013-7223 www.mci.com.br- email : meajuda@mci.ind.br
Mod.: <input type="text" value="Dosing M2 Júnior"/>	Lote : <input type="text"/>
Ano : <input type="text" value="2018"/>	N° Série : <input type="text"/>
Capacidade : <input type="text" value="5.000 pçs/h"/> *variável conforme o produto	Peso(kg) : <input type="text"/>
CREA .: 0000700760	CNPJ: 49.563.117/0001-72 <small>cód.15765</small>

cole a etiqueta n° série

cód manual : 51395  
cód. equipamento : 49022<sup>2º</sup>  
cód. painel elétrico: 50368

## OPERATIONAL SAFETY

Congratulations on your purchase and welcome to MCI. In order to enjoy the support offered, access the website **[www.minidesk.ind.br](http://www.minidesk.ind.br)**

Carefully read the Maintenance and Operation Manual, as well as all warnings pointed out in the equipment before operating it. The failure to comply with this instructions and warnings may result in strict damages to the operator.

1. This device should not be used by people (including children) with physical, sensory or mental reduced or lack of experience and knowledge, unless they are supervised educated found out about the use of the appliance by a person responsible for their safety;
2. It is recommended that children be supervised to ensure that they are not playing with the appliance;
3. Never use accessories or parts of other manufacturers. The use of them nulls the warranty. Before turning the apparatus on, please verify if all parts were properly assembled. Only use it when the protections are perfectly fitted. The protections shall only be removed from the apparatus when the latter is turned off;
4. Before connecting the appliance, make sure the voltage indicated on the motor base is the same as the outlet;
5. Equipment for internal use. The equipment must be installed in a horizontal plane and be based at least 1.00m wide and 1.00m long. Ideal to have a complementary support area for utensils;
6. The equipment should not be installed in places subject to water jets. Do not immerse the base in water or other liquid, nor rinse it under running water.
7. Operating temperature range from -5 ° C to 40 ° C;
8. Do not use the appliance if the outlet, plug or other components are damaged;
9. Connect your equipment into an exclusive outlet, do not use extension cords or T-type connectors (benjamin);
10. Identification of the interconnection terminal to maintain several devices with the same potential. Not necessarily the ground wire of a local connection.



Name: METALÚRGICA CONVENÇÃO DE ITU LTDA.			
Address: 1028, Sete Quedas Avenue			Zip code: 13.313-006
Bairro: Vila Padre Bento		City/ State: Itu – SP	
CNPJ: 49.563.117/0001 - 72		State Enrollment: 387.024.638.117	
Phone: +55 011 40137223			



The DOSING M2 JÚNIOR has safety features that fully comply with the Work Safety Regulatory Standard, NR 12, including fixed guards, moving guards, and interconnected devices, to ensure operator safety for prevention of accidents.



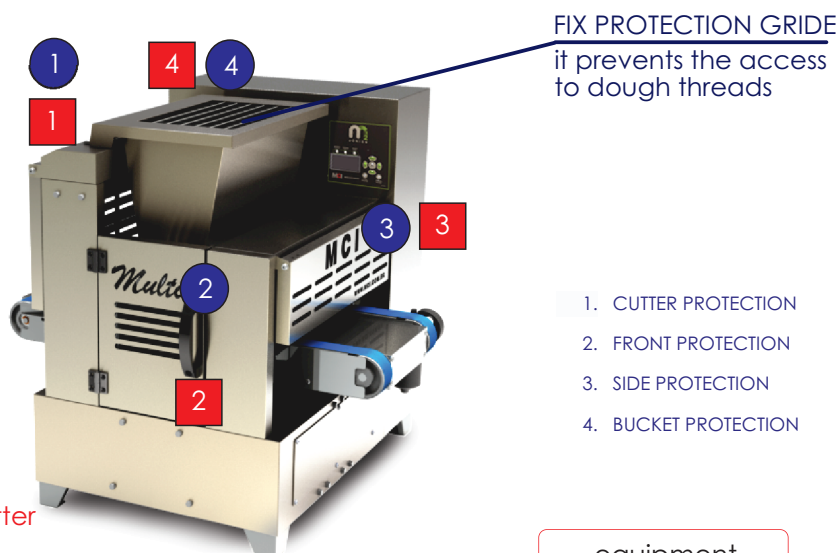
#### SAFETY SENSORS FOR THE POSITIONING OF PROTECTION GRIDE

It terminates the general operation of the equipment, the PROTECTION GRIDE is removed



#### PROTECTION COVERS

it prevents the access to the cutter



1. CUTTER PROTECTION
2. FRONT PROTECTION
3. SIDE PROTECTION
4. BUCKET PROTECTION

equipment  
**220V**

## OPERATIONAL CONTROL PANEL



#### EMERGENCY STOP BUTTON

RESET BUTTON -- used to resume production. The sensor must be in position and active to allow operation of the equipment when pushing the ON / OFF button.

#### GENERAL DISCONNECT SWITCH

turns the equipment on

*NOTE: Sensors and protection relays used in the assembly of this equipment have service life of 20 years.*

The constructive and safety devices of DOSING M2 JÚNIOR, ensures adequate protection of physical integrity and health of all workers involved in the operational process.  
It complies with the Regulatory Standard 12 of Law 6514/77 and Decrees 3214/78, 197/2010, and 293/2011 of the Pubic Ministry of Labor.

## REFERÊNCIAS NORMATIVAS

### Type A Standards:

- NBR NM 213-1-2-Machines Safety Basic concepts, general principles for projects part 1-2 (EN 292 1/2/3)
- EN 60204-1-Safety of machinery-Electrical equipment of machines-Part 1 General requirements
- NBR 14009-Principles for risk assessment (EN 1050)

### Type B1 Standards-General Safety Aspects

- NBR 14153-Safety of machinery-Safety related PARTS of control systems-General principles for design (EN 954-1)
- NBR 14154-Safety of machinery-Prevention of unexpected start-up (EN 1037)
- NBR NM-ISO 13854-Minimum gaps to avoid crushing of PARTS of the human body (EN 349)
- NBR NM-ISO 13852-Safe distances to prevent danger zones from being reached by the upper limbs (EN 294)
- NBR NM-ISO 13853-Safe distances to prevent danger zones from being reached by the lower limbs.
- ISO 13855-Approach speeds of PARTS of the human body-Safety Distance (EN 999)

### Type B2 Standards – Components used for Safety:

- NBR 13759 – Safety of machinery - Emergency stop equipment, functional aspects - Principles for design (EN 418)
- NBRNM 273 – Safety of machinery – Interlocking device associated with guards – Principles for design and selection (EN1088)
- NBRNM 272 – General requirements for the design and constructions of fixed and movable guards (EN 574)
- NBR 14152 – Safety of machinery - two-hand control devices - Functional aspects and design principles (EN 574)

### Type C Standards

- NBR 13930 – Mechanical presses - Safety requirement (EN 692)
- Additional Standards
- NBR 13970 – Safety of machinery - Temperatures of touchable surfaces - Ergonomics data
- IEC EN 61496, PARTS 1 and 2 – Safety of Machinery – Electro sensitive Protective Equipment.
- EN 99 9 – Safety of Machinery – The Positioning of Protective Equipment in Respect of Approach Speeds of PARTS of the Human Body
- NR 12 e PPRPS attachment

## TRAINING CHECKLIST

The MCI technician must mail ALL documents of this Chapter duly completed to [suporte@mci.ind.br](mailto:suporte@mci.ind.br), upon completion of the TRAINING and THE TECHNICAL DELIVERY OF THE EQUIPMENT.

## 1 - TRAINING PREPARATION

- ( ) 1.1 Presentation of the MCI Technician;
- ( ) 1.2 Inspection of the electrical installation where the equipment will be installed, with grounding acc. to the "Electrical Installation Scheme"
- ( ) 1.3 Presentation of the people who will receive the training (if possible, a company manager).
- ( ) 1.4 Review, along with the participants and manager, of the items in the "Training Guidelines"

## 2 - EQUIPMENT (START OF TRAINING)

- ( ) 2.1 Assembly and disassembly the equipment and familiarization with the PARTS.
- ( ) 2.2 Familiarization with the lubrication points and their proper maintenance.
- ( ) 2.3 Familiarization with the electrical components and their functions.
- ( ) 2.4 Electrical panel and its functions.

## 3 - PRODUCT

- ( ) 3.1 Operator panel presentation.
- ( ) 3.2 Selection of accessories according to the size and form of the product.
- ( ) 3.3 Clarification on the parameters of each product program
- ( ) 3.4 Procedures for cleaning and sanitizing the equipment and the accessories.

## 4 - TRAINING COMPLETION

- ( ) 4.1 Confirm that the operational safety system is active.
- ( ) 4.2 Customer Satisfaction Survey.
- ( ) 4.3 Warranty Term.
- ( ) 4.4 Completion of the report by the MCI Technician.
- ( ) 4.5 Training completed with clarity and coherence, i.e., the customer is able to handle the equipment.

### TRAINING DELIVERY TERM

I declare I received all of the information contained in this Operational Manual, through the 16-hour training, and am able to use the DOSING M2 JÚNIOR.

Corporate Name: \_\_\_\_\_

Owner or responsible manager\*: \_\_\_\_\_

ID: \_\_\_\_\_ Tax ID number (company): \_\_\_\_\_

Date: \_\_\_\_\_

MCI Technician\*: \_\_\_\_\_

### PEOPLE WHO MADE TRAINING AT LEAST 2 PEOPLE

1 st Name\* : \_\_\_\_\_ ID: \_\_\_\_\_

2 nd Name\* : \_\_\_\_\_ ID: \_\_\_\_\_

3 rd Name\* : \_\_\_\_\_ ID: \_\_\_\_\_

### ITEMS THAT MUST BE CHECKED AND FILLED

☐ Completed every information above

☐ Training checklist

☐ Customer satisfaction survey

\_\_\_\_\_  
Owner or responsible manager

\_\_\_\_\_  
MCI Technician

\* all names must be written at full length

1st copy fo MCI



## CUSTOMER SATISFACTION SURVEY

The MCI works to provide the best results at all times, and your opinion is very important for this process

Customer: \_\_\_\_\_

Survey answered by (name/occupation): \_\_\_\_\_

Equipment: \_\_\_\_\_

MCI Technician: \_\_\_\_\_

TERRIBLE

BAD

REGULAR

GOOD

GREAT

### Concerning the MCI Technician:

Teaching prowess

--	--	--	--	--

Attention given to the training

--	--	--	--	--

Presentation (physical appearance)

--	--	--	--	--

Knowledge and confidence

--	--	--	--	--

Organization

--	--	--	--	--

### Concerning the contents of the training

It has a clear and objective order

--	--	--	--	--

It answered all of my questions

--	--	--	--	--

It met the expectations

--	--	--	--	--

### Concerning the acquired equipment:

It met the expectations of quality for the product

--	--	--	--	--

It met the productivity expectations

--	--	--	--	--

I would recommend MCI

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If you wish, use this space to write down criticism, suggestions, or compliments

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Av. Sete Quedas, 1028 - Vila Padre Bento - CEP 13313-006 - ITU - SP

Telefone: (11) 4013.7227

CNPJ: 49.563.117/0001-72    IE:387024638117    e-mail: suporte1@mci.ind.br / suporte2@mci.ind.br

CUSTOMER CODE:

Client: \_\_\_\_\_ : Responsible / Owner: \_\_\_\_\_

Equipment: \_\_\_\_\_ Technician(s): \_\_\_\_\_

Products / Observed defects and Consequences:

Initial km:

Final final:

Labor:

Client's  
signature

Week	Date	Start time	Lunch break	End time	Total time	Client's signature
Monday						
Tuesday						
Fourth						
Fifth						
Friday						
Saturday						
Sunday						

---

Client's note

**Statement to Metalúrgica Convenção de Itu Ltda.**

- We declare that the MCI Assistant has checked and repaired the machine in question, leaving it under the conditions described above.
- By signing this Report, we acknowledge and declare that we authorize the issuance of Tax Receipts and Invoices corresponding to the replacement of PARTS, labor, PARTS acquisition, and other related expenses, except for the warranty PARTS and services.

Date      /      /     

Signature of the Responsible / Owner: \_\_\_\_\_

E-mail: \_\_\_\_\_ Name: \_\_\_\_\_ ID: \_\_\_\_\_



Av. Sete Quedas, 1028 - Vila Padre Bento - CEP 13313-006 - ITU - SP

Telefone: (11) 4013.7227

CNPJ: 49.563.117/0001-72

IE:387024638117

e-mail: [suporte1@mci.ind.br](mailto:suporte1@mci.ind.br) / [suporte2@mci.ind.br](mailto:suporte2@mci.ind.br)

TECHNICAL ASSISTANCE REPORT No.

CUSTOMER CODE:

Client: \_\_\_\_\_ : Responsible / Owner: \_\_\_\_\_

Equipment: \_\_\_\_\_ Technician(s): \_\_\_\_\_

Products / Observed defects and Consequences:

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Date      /      /     

Signature of the Responsible / Owner: \_\_\_\_\_

E-mail: \_\_\_\_\_ Name: \_\_\_\_\_ ID: \_\_\_\_\_



## TRAINING GUIDELINES

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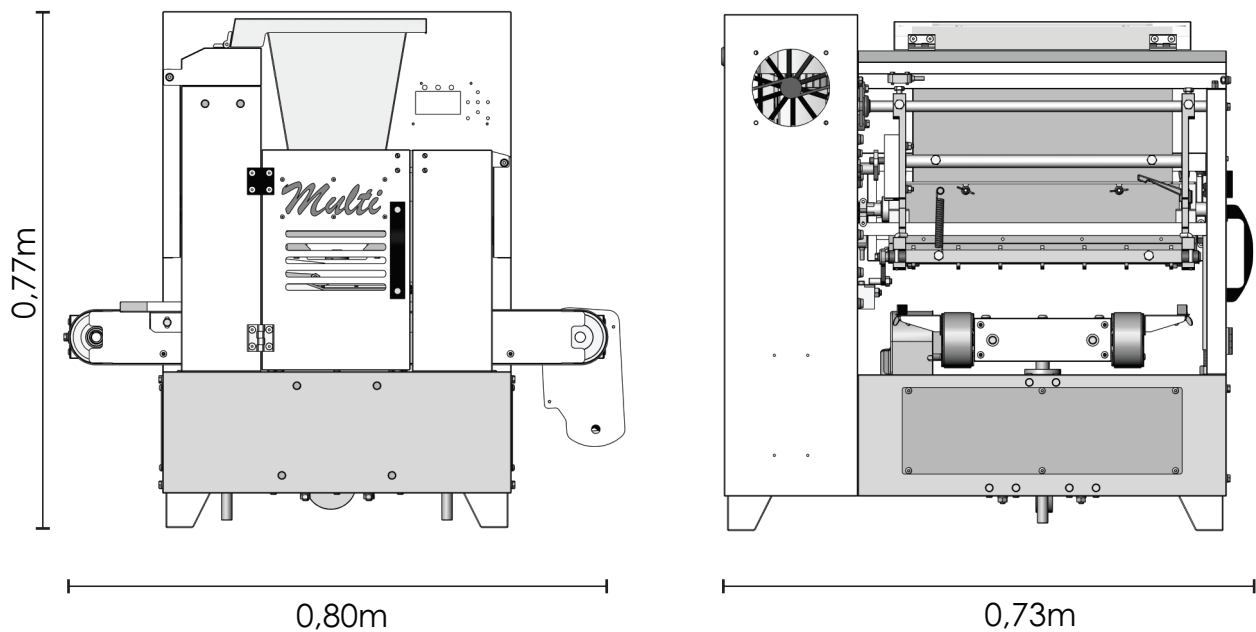
DEAR CLIENT,

You are going to receive training by the MCI Technician, to operate the DOSING M2 JÚNIOR. Value the training and follow the guidelines, for better results. They are as follows:

1. Interrupt production on the day of training, at least for the participants of the training;
2. Designate at least two persons for training; one of them should be responsible for the production or for the company, and must not have other work assignments on training days. Those persons must be focused totally on the training throughout the stay of the MCI technician in their establishment;
3. For better results, the training has a pre-set time. Thus, cleaning of the PARTS that are going to be used should be readily available whenever requested by the MCI technician;
4. Provide the ingredients;
5. To use the equipment, a few adaptations for preparation or ingredients of the dough may be required;
6. Small differences between the PRODUCTS produced manually and acquired dosing are expected. We do not recommend selling products manufactured during training for service to customers before validating it as the product standard to be sold.
7. The adaptation to produce pastries with the machine may take some time.
8. The training total duration is 16 hours.

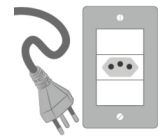
MCI TECHNICAL ASSISTANCE

## EQUIPMENT INSTALLATION



The power supply uses a single 10A outlet (Brazilian standard).

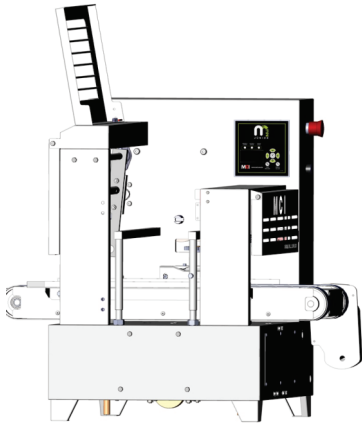
Power 650W



The DOSING M2 JÚNIOR has safety features that fully comply with the Work Safety Regulatory Standard, NR 12, including fixed guards, moving guards, and interconnected devices, to ensure operator safety for prevention of accidents.

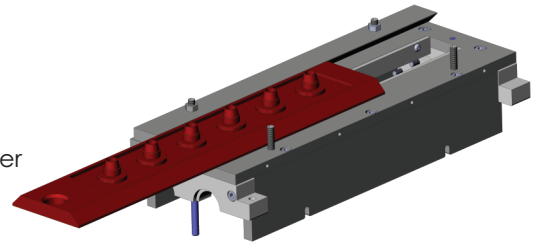
## ASSEMBLING PARTS, CLEANING AND MAINTENANCE

## ASSEMBLY AND DISASSEMBLY M2 JÚNIOR - step by step

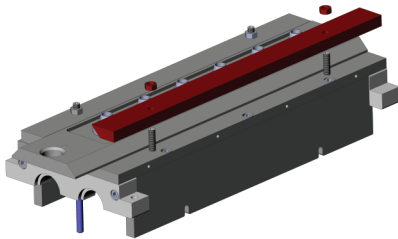


1. Machine clean without accessories. make sure the machine is off;

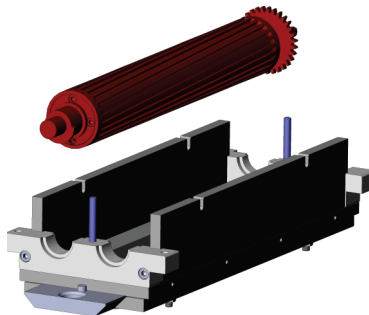
The front door has been deleted from the following images for better visualization;



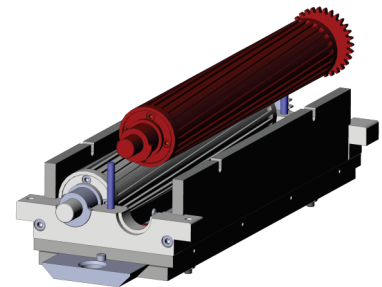
2. Choose the ruler for the desired product. The ruler (without the nozzles) can be mounted on the bucket, outside the DOSING M2 JÚNIOR, to facilitate the fixing of the slide guides;



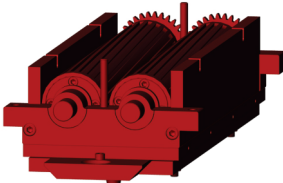
3. Fix the guide through the two nuts;



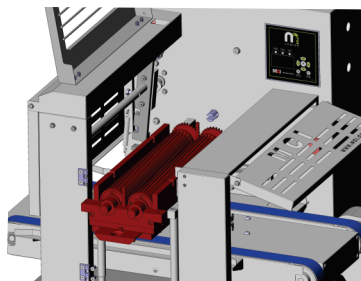
4. Fit the drive roller inside the bucket;



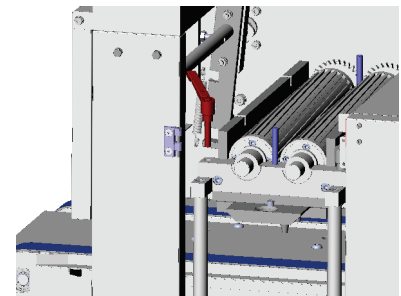
5. Fit the driven roller inside the bucket;



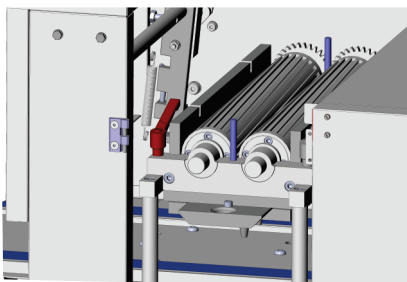
6. Bucket mounted with rollers and ruler;



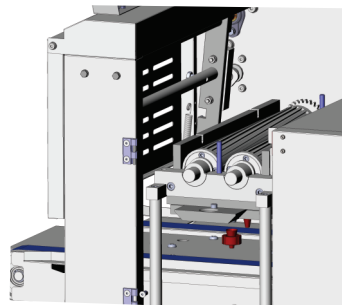
7. Position the bucket on the DOSING M2 JÚNIOR and push back until the drive roller engages the motor shaft perfectly;



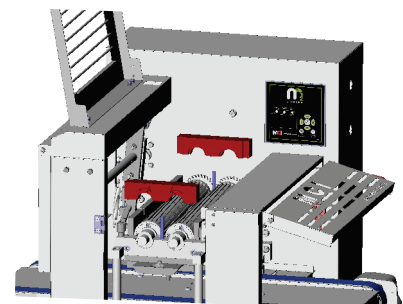
8. Position the levers to secure the bucket to the Dosing M2 Júnior. Make small circular movements on the lever to thread them into the Dosing.



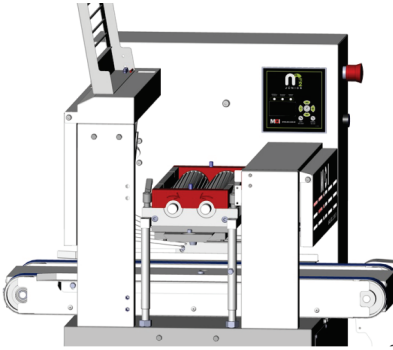
9. Levers threaded to the support ensure that there will be no movement of the bucket;



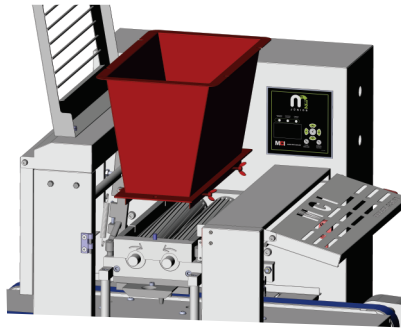
10. Fit the desired nozzles;



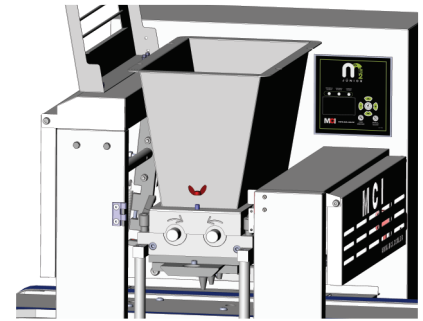
11. Fit the front and rear parts of the bucket;



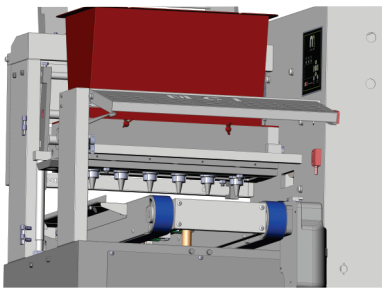
12. Make sure it is perfectly seated;



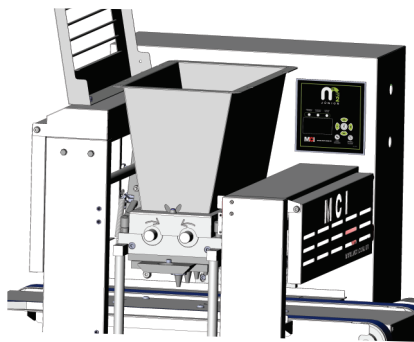
13. Fit the bucket extender. The butterfly nuts should be unscrewed;



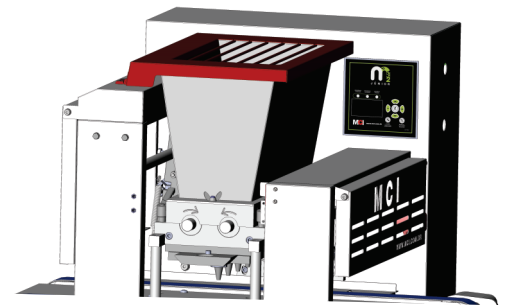
14. Fix the bucket by the front and rear butterfly nuts;



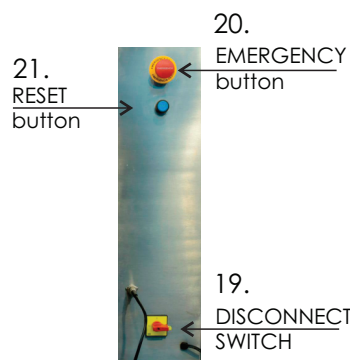
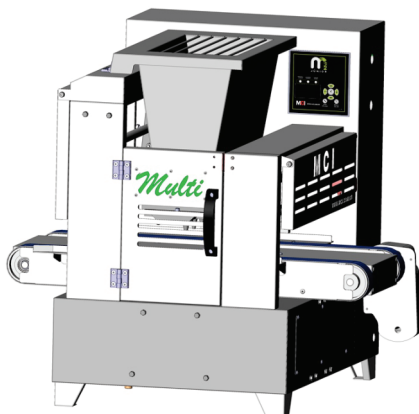
15. Fix the extender also to the 4 lateral butterfly nuts;



16. Machine mounted, it can be energized, but only works when all safety sensors are in position;



17. Lower the bucket cover;



18. Close the front door;

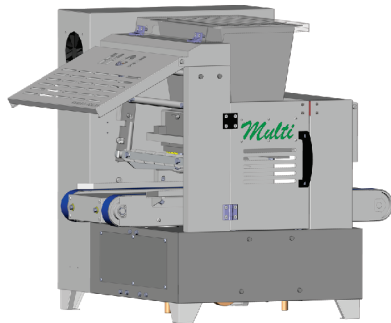
19. Turn on the power switch;

20. Make sure the emergency button is released;

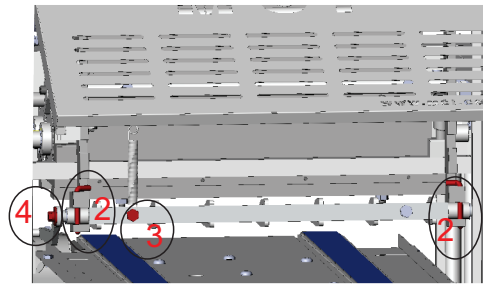
21. Press the reset button;

22. From now on, you can start setting the parameters for each desired product as instructed by the MCI technician.

When not making **CUT products**, remove the cutter assembly.



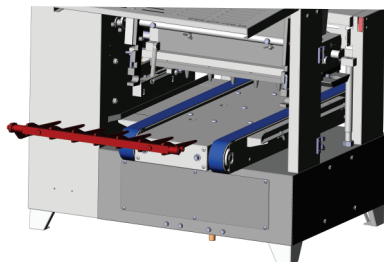
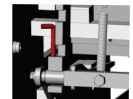
1. Lift the side cover;



2. Turn and raise the two clips that secure the cutter assembly;

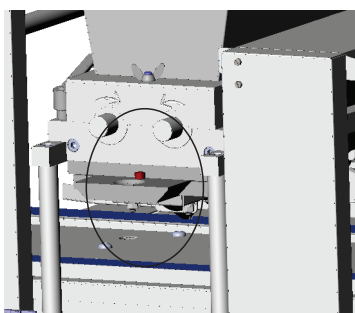
3. Unscrew the screw to release the spring;

4. Remove the nut and washers that secure the cutter assembly to the "movement"

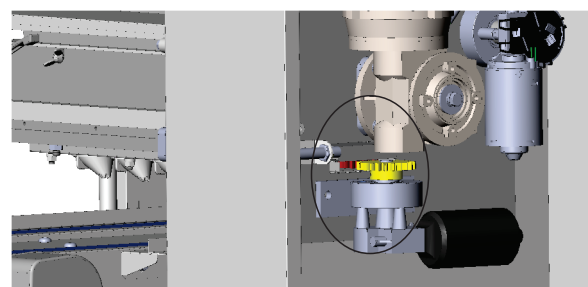


5. Remove the cutter assembly.

All rulers have a screw LIMITER, which perfectly positions the ruler to the bucket. For **GIRO** products, this positioning is even more important because only this way the ruler and machine gears fit perfectly. If the gears are not engaged, they will wear out and may render them unusable.



screw LIMITER  
highlighted (front view without the door)



ruler and metering gears  
highlighted (rear view without the cover)



## GENERAL EQUIPMENT CLEANING

Turn off the machine, removing the plug from the socket. Avoid electric shock;

Disassemble the parts of the DOSING M2 JÚNIOR as previous guidance and wash with soft sponge, mild soap and running water;

Clean the equipment with a damp cloth until total removal of the waste product; Clean the bottom of the belt, remove residues with a damp cloth.

Give special attention to the ruler of rotation, which will be completely disassembled for cleaning for each use. See guidance on the next page.

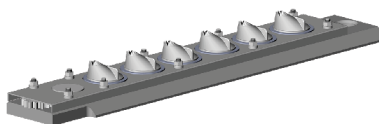
**DO NOT WASH THE EQUIPMENT WITH RUNNING WATER TO NOT COMPROMISE THE ELECTRO AND ELECTRONIC PARTS**

Periodically open the back covers for general cleaning and removal of residues.

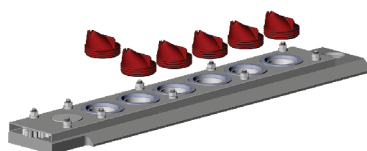
Maintain the electrical – electronic part free from moisture. Oxidation of electronic components generate electro- failures that compromise the operation of the equipment.

## DISASSEMBLY AND CLEANING OF THE RULER OF ROTATING

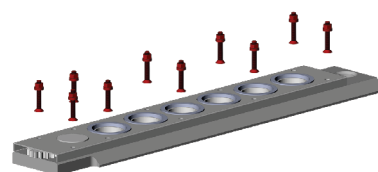
When disassembling the ruler, be careful not to mix the parts of each subassembly of the gear, making it easier to mount after all the clean parts.



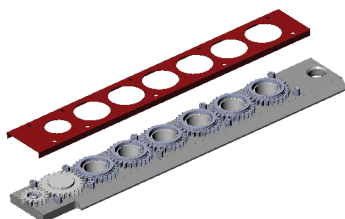
1. Make a complete periodic disassembly, according to the use of the ruler and the type of product;



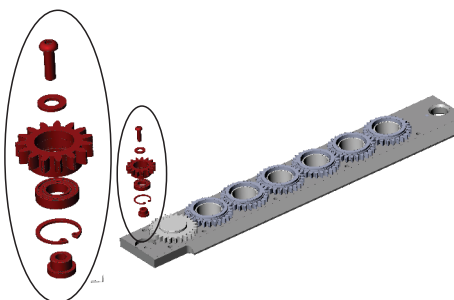
2. Remove the nozzles by unscrewing them;



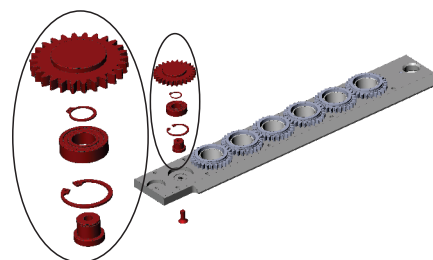
3. Remove the bolts, nuts and washers with an Allen wrench;



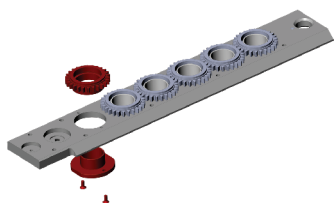
4. Remove the top;



5. With the aid of an Allen wrench, loosen the gear and undo the other parts as shown;



6. Repeat the operation by loosening the lower screw with an Allen wrench. Release the gear and undo the other parts as shown;



7. Undo the driven gears. Using the Allen wrench, remove the two screws that secure each moved gear bracket. Repeat the operation for all gears moved;

8. Wash the parts with a soft brush, soap and running water. After the cleaned, clean and dry parts, assemble as shown above.

**IMPORTANT:**

REMOVE THE ROTATING RULING FOR EACH USE to ensure that product residues do not become impregnated in the gears, making it difficult to operate, forcing the engine and burning it.

The preventive maintenance ensures the proper functioning of equipment and increases its useful life, minimizing wear of parts.

1) Tighten all screws and nuts every 15 days.

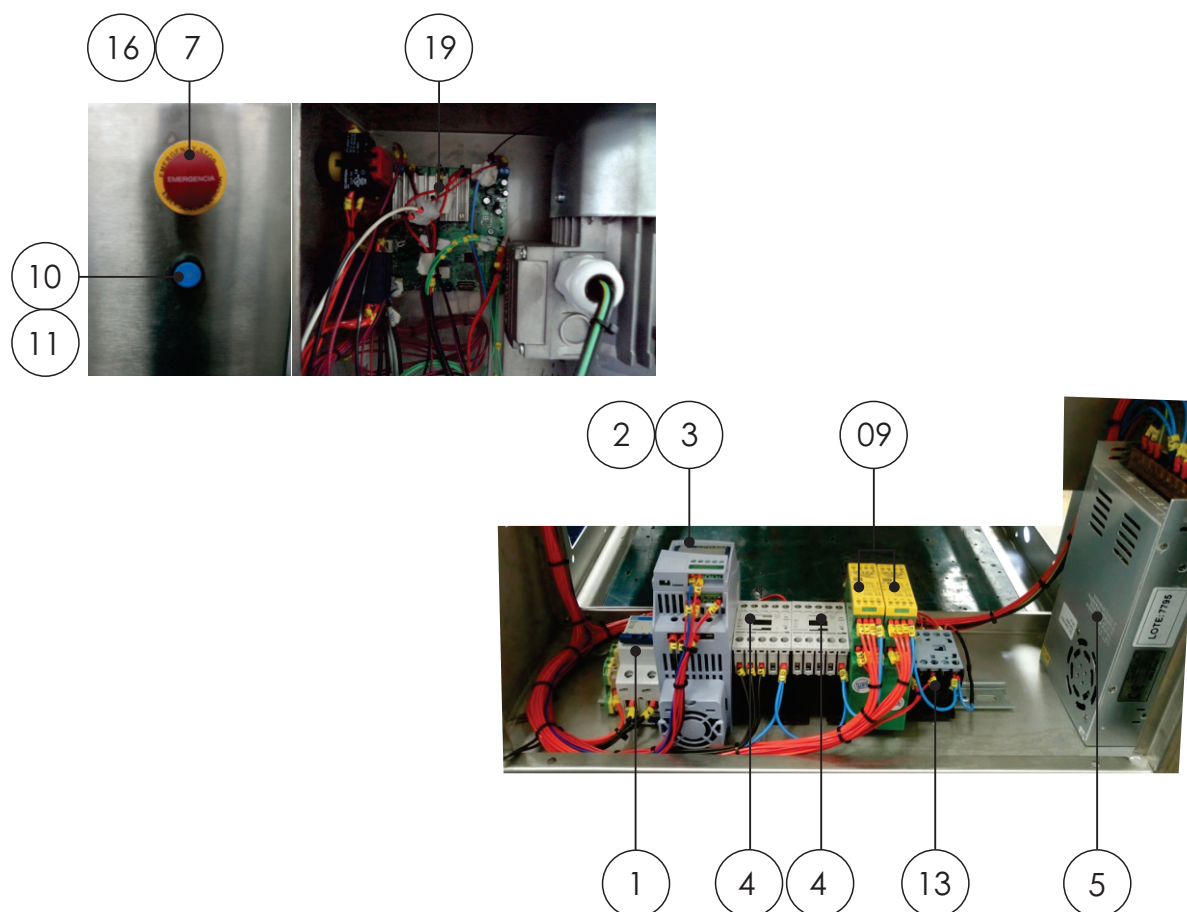
2) Open the back cover of the machine for lubrication and retightening of screws referring to the vertical movement of the table:

#### REQUEST OF PREVENTIVE MAINTENANCE MCI

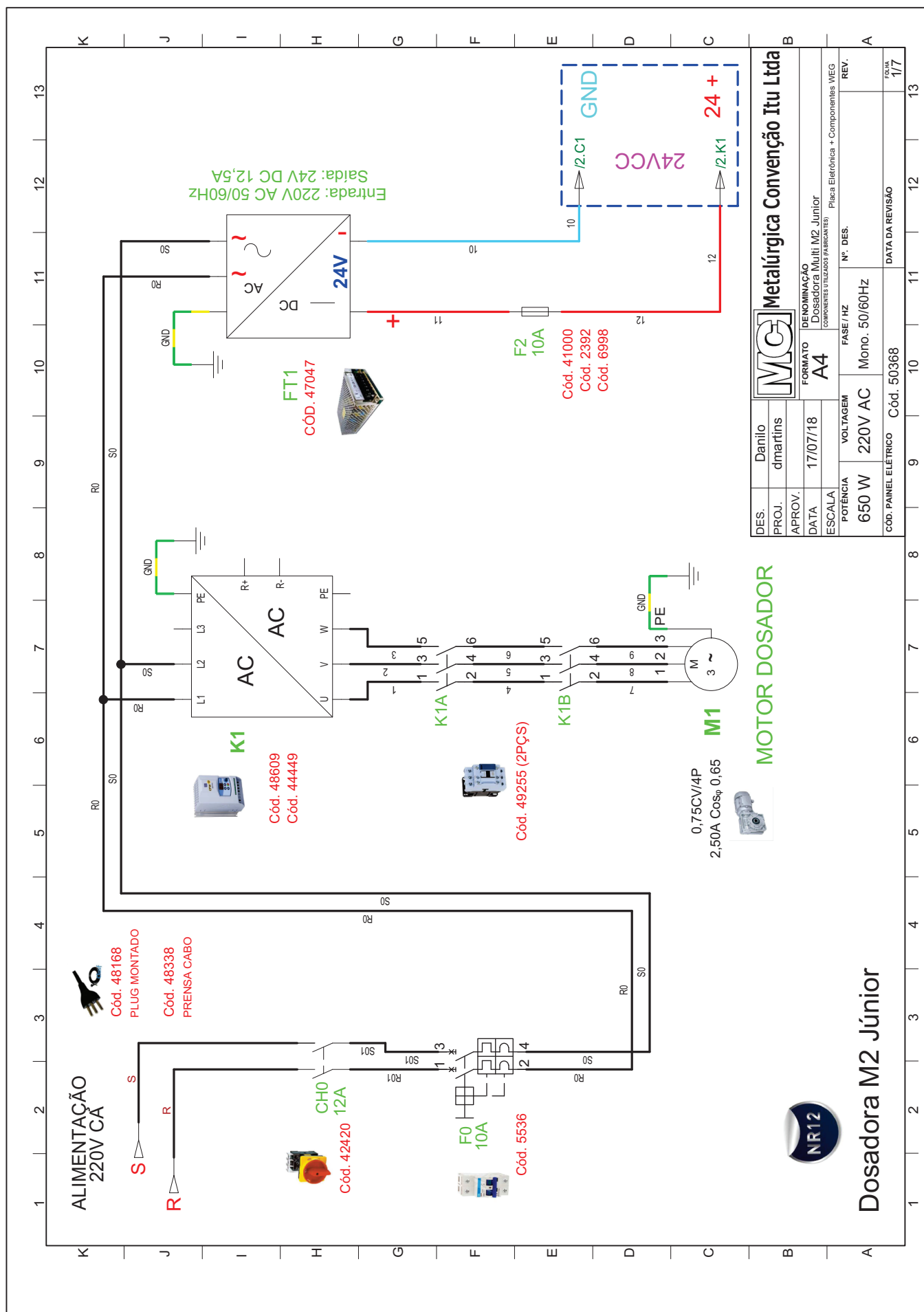
1. Every six months of using the machine is interesting that the client requests a MCI Technician visit to perform preventive maintenance on the equipment and possible improvements in its production process, in order to preserve the equipment and avoid some unwanted problems. To request a visit, the owner client must contact the company to schedule.

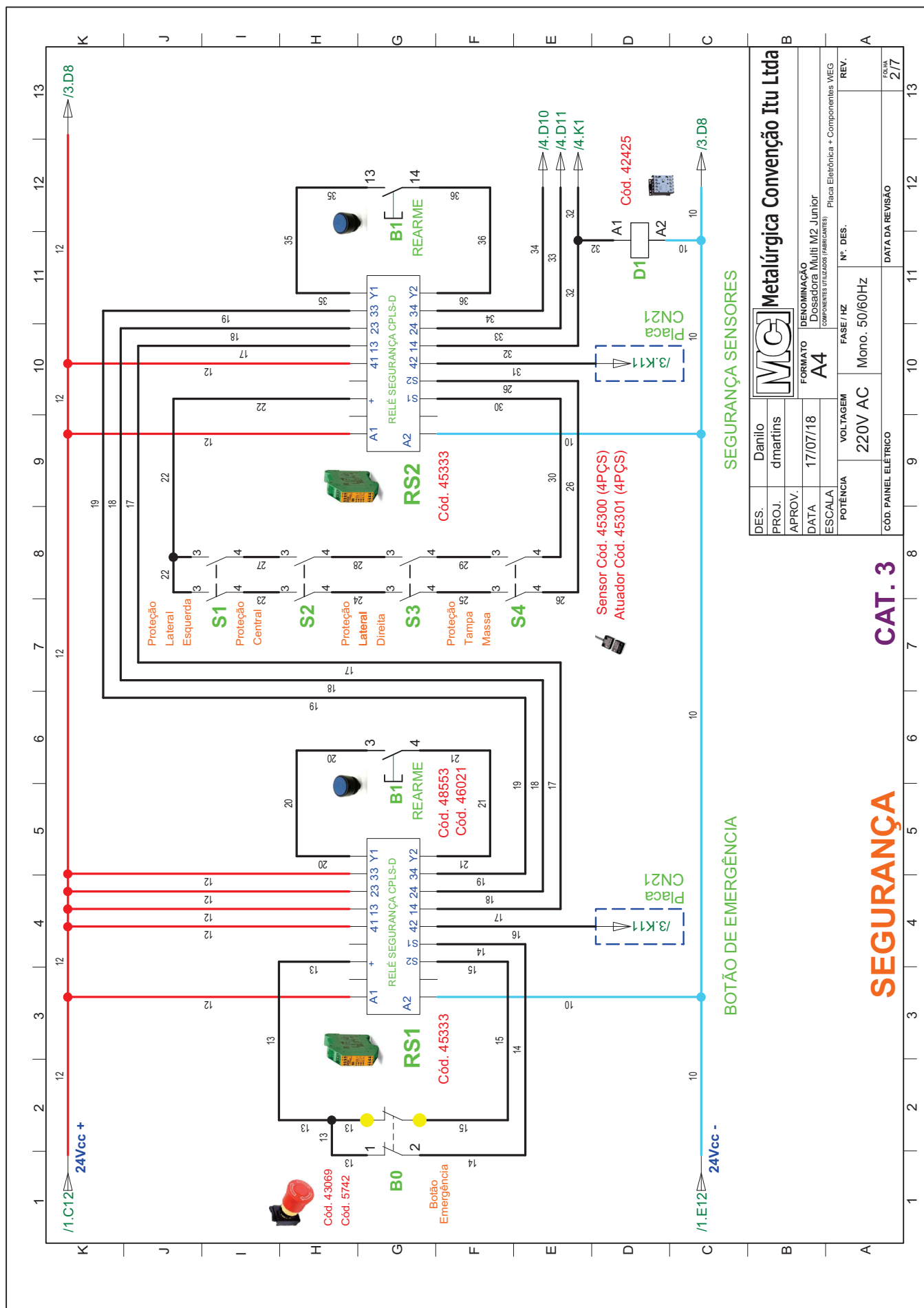
**NOTE:** Customer is responsible for the cost of the visit and spare parts if necessary.

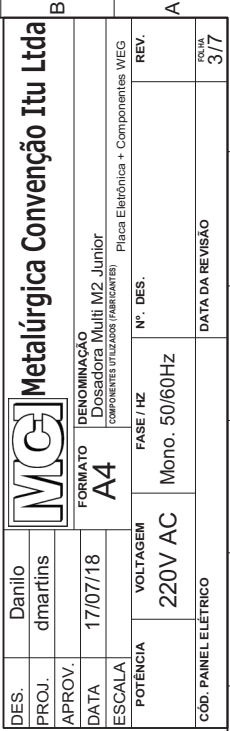
## PANEL AND ELECTRIC DIAGRAM



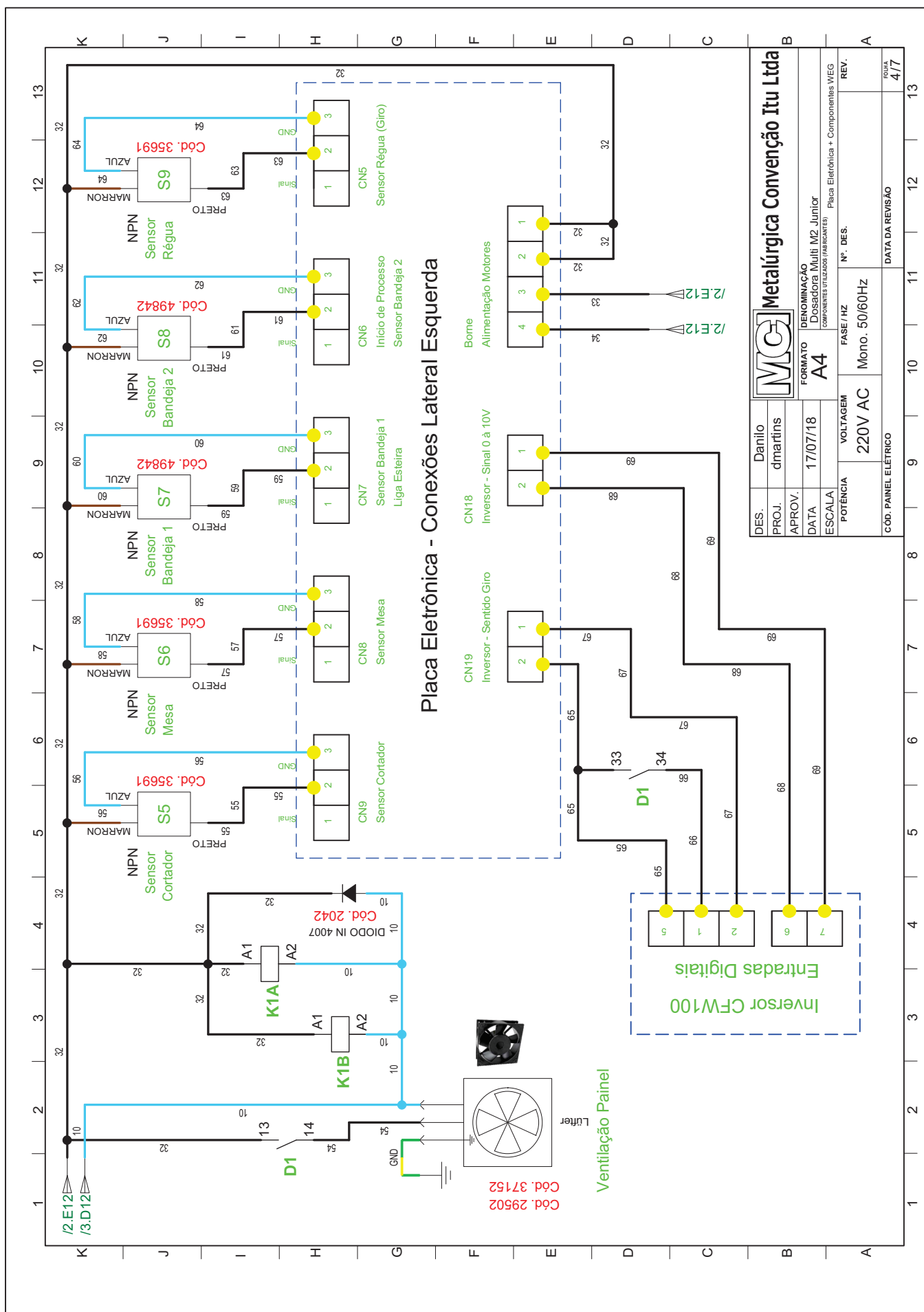
ITEM	CODE	QTY.	DESCRIPTION
1	05536	1	Engine circuit-breaker - MDW-C10-2 10A
2	48609	1	Frequency inverter - CFW100 (220V - 4,2A)
3	44449	1	Module - I / O CFW100 WEG MOD. CFW100-IOAR
4	49255	2	Three-pole contactor - EATON MOD. DILM9-10 (24DVC)
5	47047	1	Switching power supply - 24VDC / 12,5A - 127/220V
6	41000	1	Glass fuse - 10A Ø 5MM X 20MM 250V
7	43069	1	Emergency button - SCHMERSAL MOD. CLE2 40 + 2X CLP101
8	02042	1	Diode - 1N 4007
9	45333	2	Safety relay - CPLS-D301
10	48553	1	Blue Faceted Button + Contact Block NA
11	46019	1	Simple contact block - BC10F-CSW NA
12	45300	4	Magnetic sensor - WEG MOD. SSM5-30R1P2AL
13	42425	1	Mini auxiliary contacts - (AZ) CWCA0-31-00 C03 (24VCC)
14	49842	2	Optical sensor - SENSE MOD. OS300-CXP-PN
15	35691	3	Inductive sensor - METALTEX MOD. I12-4-DNCC (1NA+1NF / 10-30VCC) NPN
16	05742	1	Emergency plate
17	42420	1	Disconnecter switch - MSW 12 P-2 H
18	45301	4	Sensor actuator - WEG MOD. ASSM5-30RP COD. B
19	50380	1	Eletronic board
20	29502	1	Mini fan - Max Tech
21	37152	1	Metal screem - MOD. MG12 CR

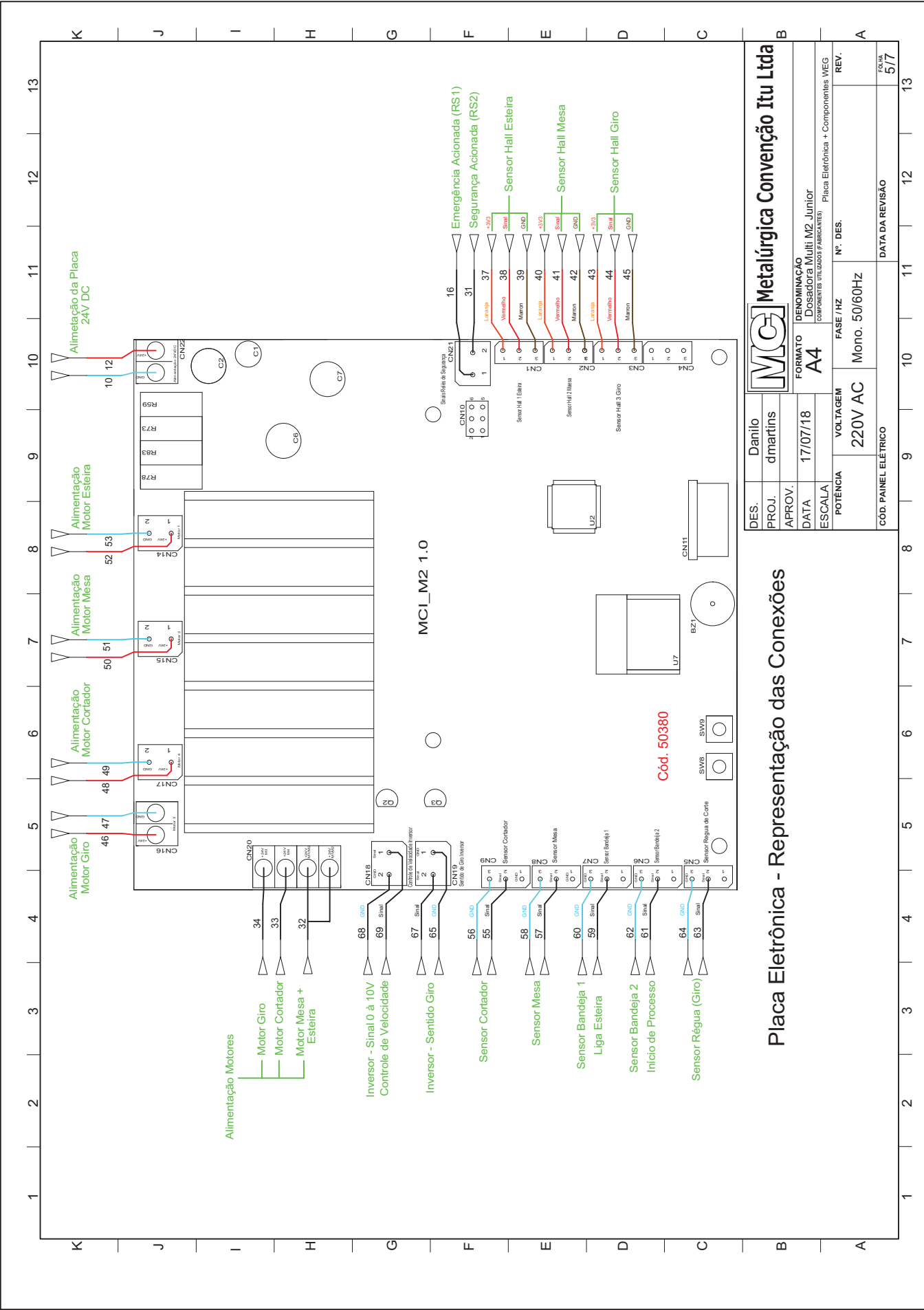









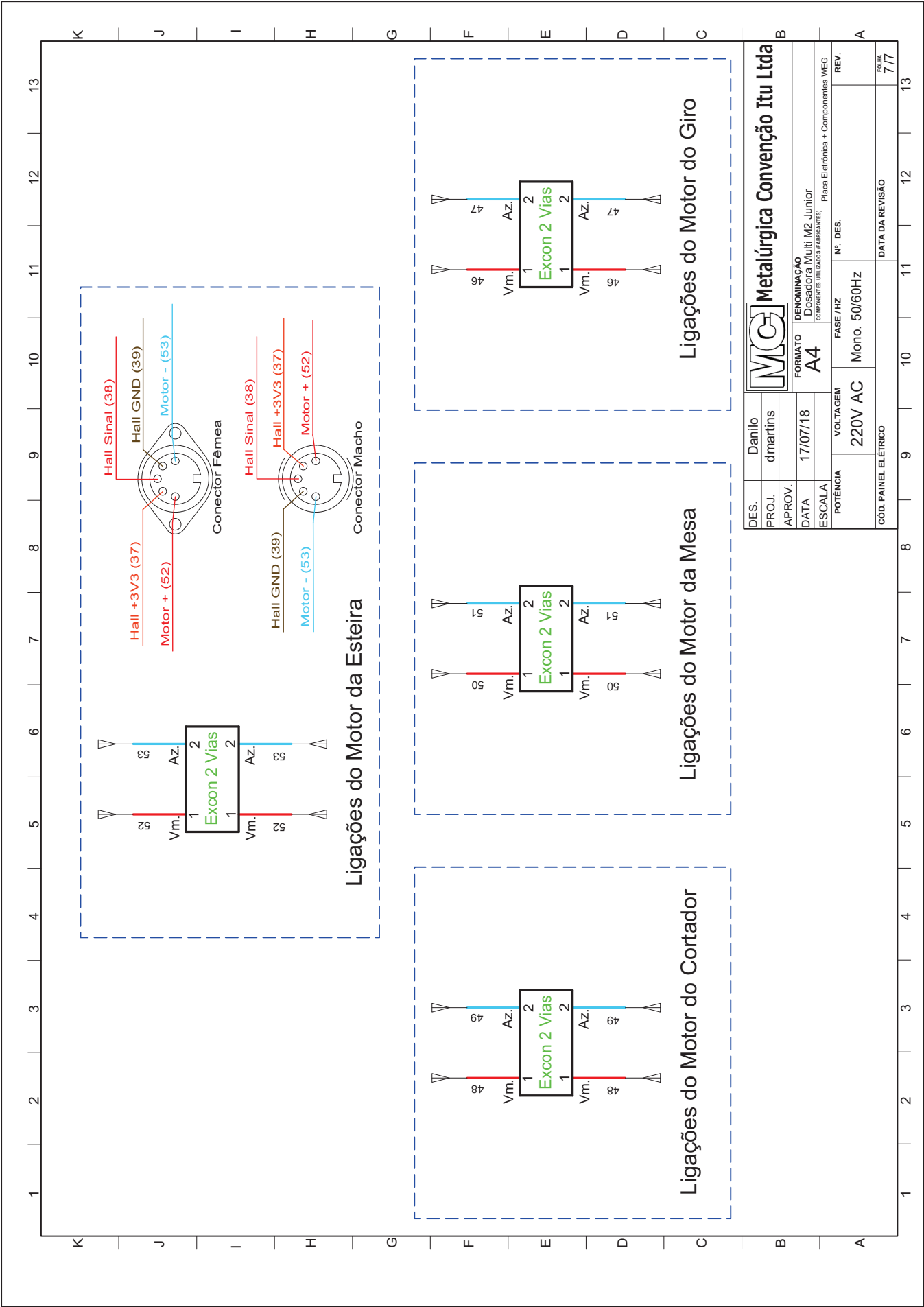






P100: 1.00	(Tempo de Aceleração)
P101: 00.2	(Tempo de Desaceleração)
P133: 00.0	(Frequência Mínima)
P134: 60.0	(Frequência Máxima)
P136: 5.00	(Torque Manual)
P221: 001	(Referência Velocidade - A11)
P223: 004	(Sentido de Giro)
P224: 001	(Comandos - Dlx)
P233: 000	(Seleção da Entrada Analógica)
P263: 002	(Entrada Digital D1)
P264: 008	(Entrada Digital D2)
P265: 000	(Entrada Digital D3)
P266: 000	(Entrada Digital D4)
P401: 3.5A	(Corrente Nominal do Motor)

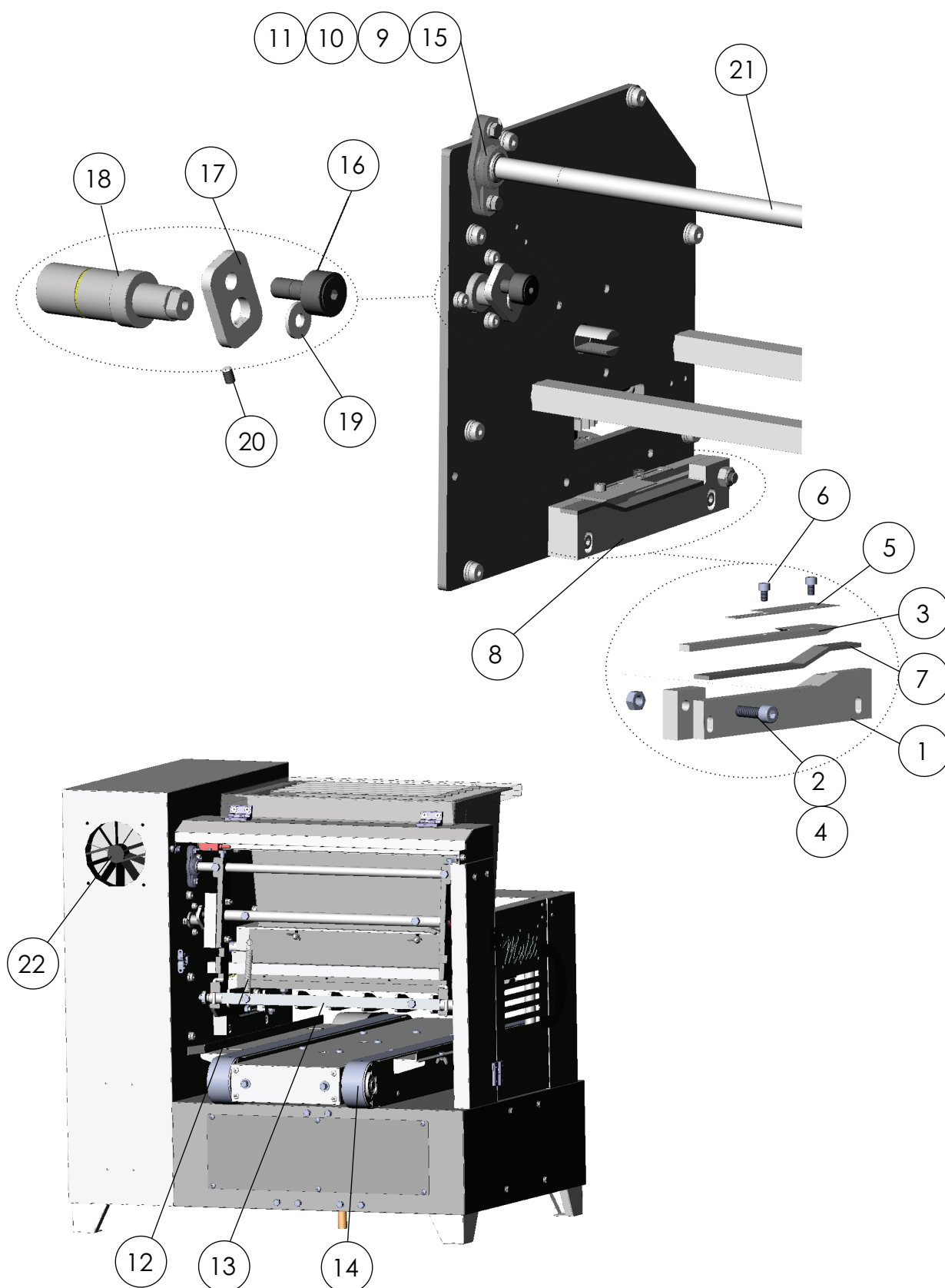
DES.	Danilo	 <b>Metalúrgica Convenção Itu Ltda</b>				B
PROJ.	dmatins					
APROV.						
DATA	17/07/18	FORMATO	DENOMINAÇÃO			
ESCALA		A4	Dosadora Multi M2 Junior			
POTÊNCIA	VOLTAGEM	FASE / HZ	Nº. DES.	REV.		
	220V AC	Mono. 50/60Hz			A	
COD. PAINEL ELÉTRICO		DATA DA REVISÃO		FOLHA		
				6/7		



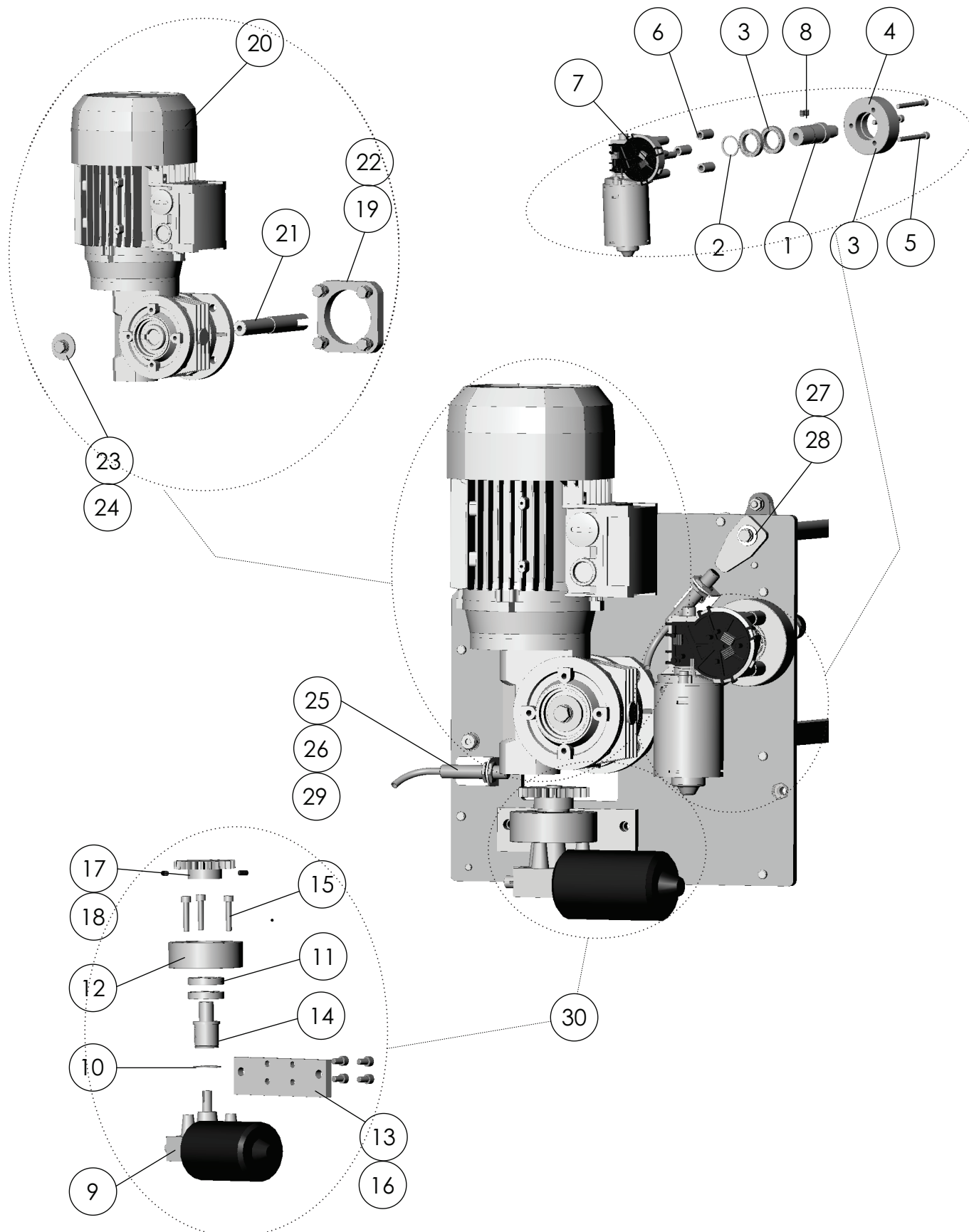
**MCG** Metalúrgica Convenção Itu Ltda

APROV.			FORMATO	DENOMINAÇÃO	
DATA	17/07/18		A4	Dispositivo Multi M2 Junior	
ESCALA				COMPONENTES E PREÇOS / PRECATORIO	
POTENCIA	VOLTAGEM	FASE / HZ	Nº. DES.	REV.	
	220V AC	Mono. 50/60Hz			
COD. PAINEL ELÉTRICO			DATA DA REVISÃO		FOLHA
					7/7

## SPARE PARTS

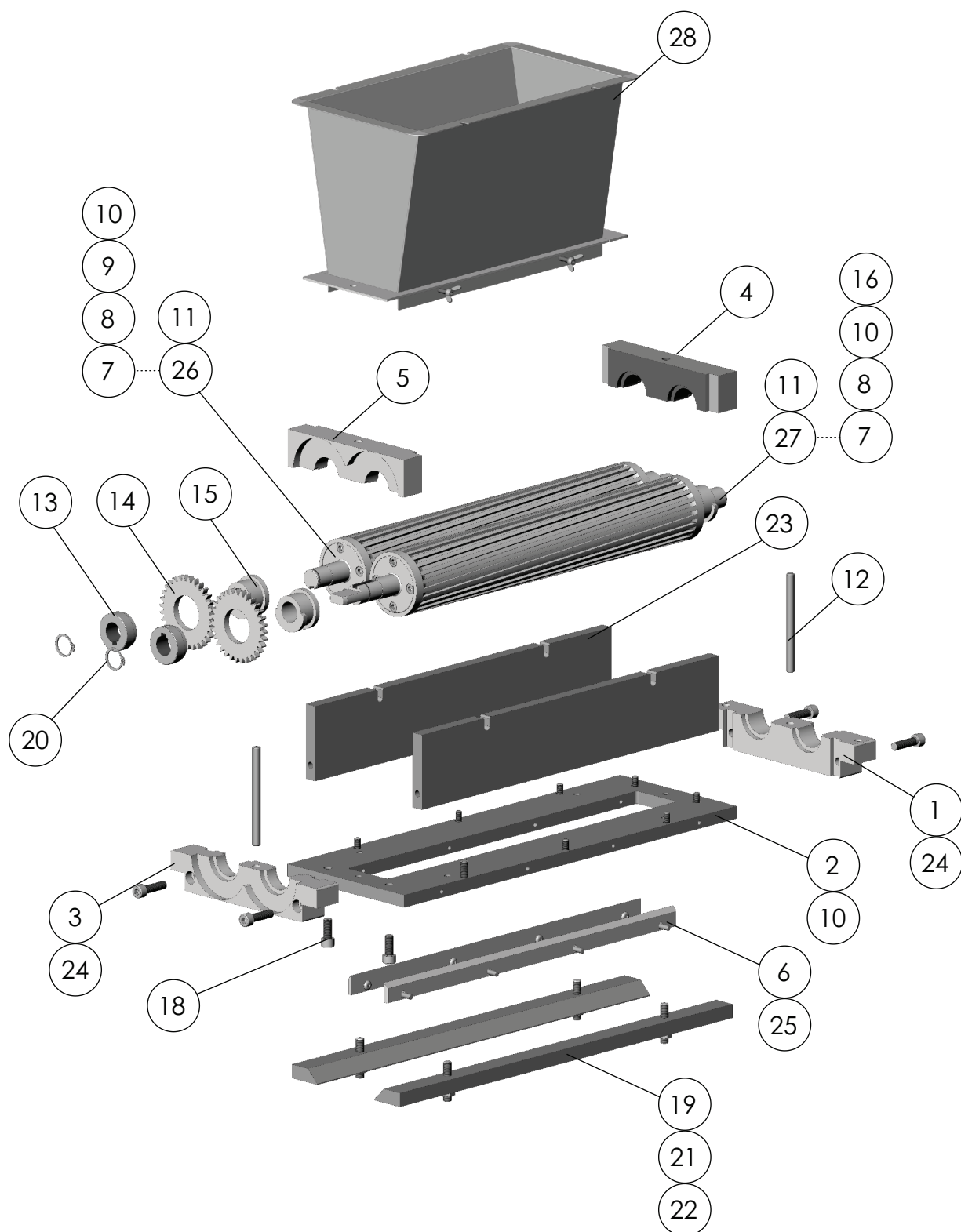


ITEM	CODE	QTY.	DRAWING	DESCRIPTION
1	50213	1	02-0159-341	Cutter base
2	01958	1	01958	Allen socket cap screw - M08x25-Inox 304
3	46781	1	03-0319-028	Cutter pin guide
4	04232	1	04232	Hex nut Autotrav. - M08 - INOX
5	50258	1	03-0159-182	Cutter regulator
6	27259	2	27259	Allen socket cap screw - M05x8-Inox 304
7	50292	1	11-0159-010	Rubber cutter bumper
8	50306	1	01-0159-110	Cutter set
9	22112	2	22112	Hex cap screw - M06x25mm
10	45585	2	45585	Elastic ring - E-16 DIN 471
11	21688	1	21688	Hex cap screw with nut M6 x 25
12	06213	2	07-0000-005	Tension spring - Ø13 C98 FIO Ø1,5MM
13	50295	1	01-0159-138	Cutter set
14	50309	1	01-0159-104	Conveyor belt set
15	47547	2	EFOI_10	Bearing - IGUS EFOI-10 (5/8")
16	45735	1	45735	Bearing KR22
17	50257	1	03-0159-180	Cutter moving lever
18	50207	1	02-0159-327	Cutter engine shaft
19	50251	2	03-0159-165	Lock washer - CAMES
20	21927	1	21927	Allen set screws - M5 X 8mm
21	50206	1	02-0159-326	Cutter lever shaft
22	29502	1	29502	Cooler 120X120X25mm - 24V

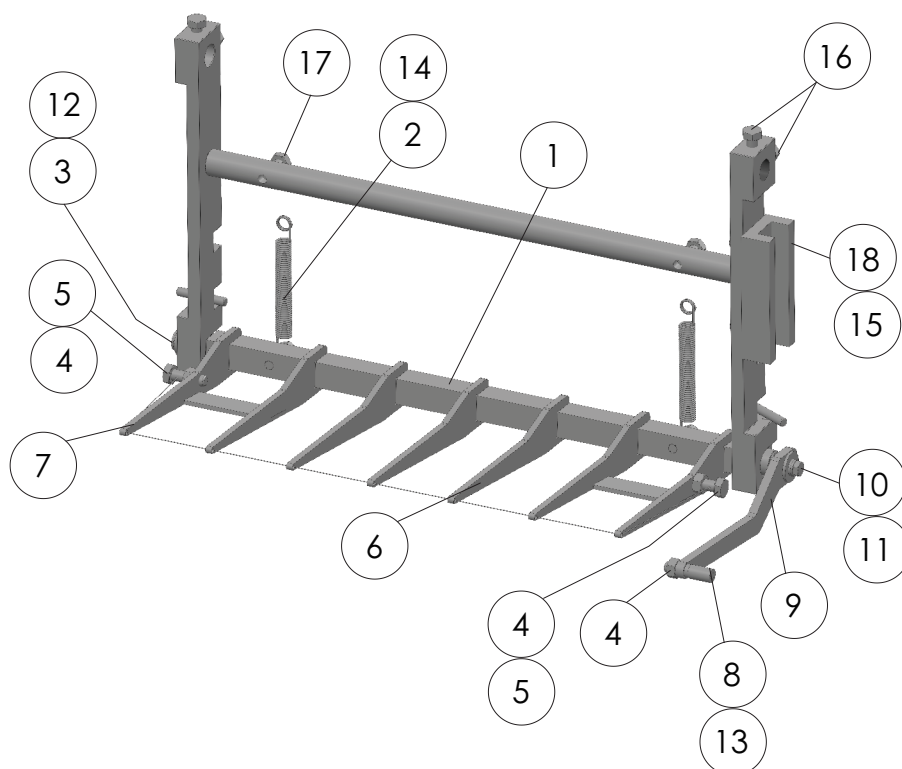




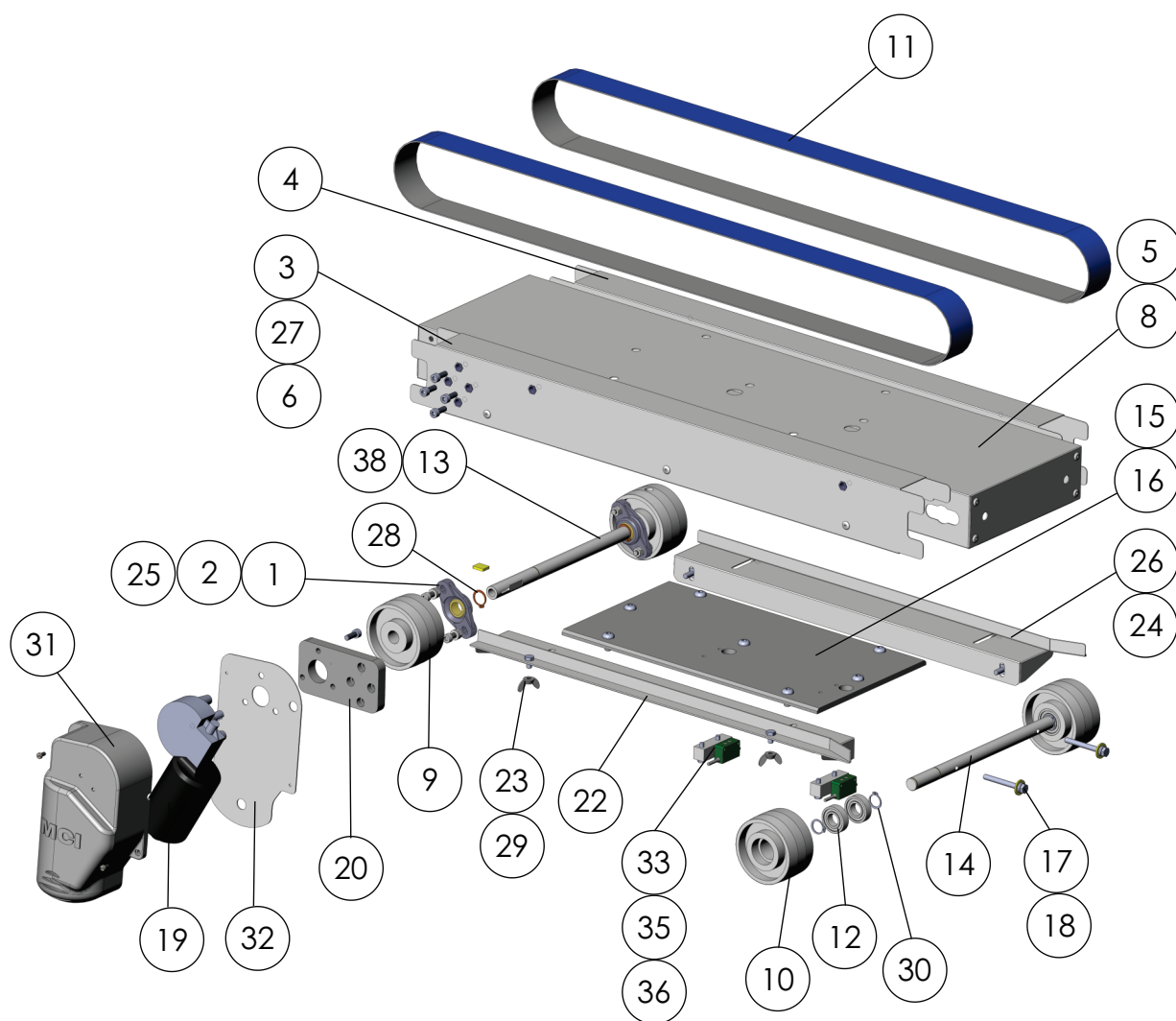
ITEM	CODE	QTY.	DRAWING	DESCRIPTION
1	50207	1	02-0159-327	Cutter engine shaft
2	00321	1	00321	Elastic ring - E-25
3	10791	2	10791	Bearing - ZZ (d25xD37x7)
4	46659	1	02-0319-057	Cutter engine coupling
5	22280	3	22280	Allen socket cap screw - M06x55mm
6	46768	3	02-0319-113	Wireless cutting distancer
7	08534	1	08534	Engine - BOSCH CEP F 006 B20 101 24V
8	08173	2	08173	Allen set screws - M6 X 8mm
9	27243	3	27243	Engine - BOSCH CEP F006 B20 360 24V
10	00321	2	00321	Elastic ring - E-25
11	10791	4	10791	Bearing - ZZ (d25xD37x7)
12	27534	1	02-0159-122	Acoplamento Motor Bosch Giro Bicos
13	50214	1	02-0159-342	Rotating engine distancer base
14	46589	1	02-0319-002	Rotationg engine shaft
15	00176	3	00176	Allen socket cap screw - M06x30
16	00994	4	00994	Allen socket cap screw - M06x12
17	50212	1	02-0159-337	Rotation drive gear
18	06318	2	06318	Allen set screws - M5 X 10mm
19	50250	1	03-0159-164	Dose engine discharge flange
20	50304	1	50304	Gearmotor - BONFIGLIOLI VF44 F1 35 B14 B3W BN 71C 4
21	50215	1	02-0159-343	Dough engine axis
22	22134	4	22134	Hex cap screw set- M08x30mm
23	25734	1	25734	Plain washer 5/16" Zincada
24	22131	1	22131	Hex cap screw set - M08x20mm
25	03456	4	03456	Slotted head screw - M5 x 10mm
26	47426	2	03-0159-092	Cutting rule sensor support
27	22112	11	22112	Hex cap screw set - M06x25mm
28	50235	1	03-0159-141	Cutter sensor lever
29	15095	3	-	Inductive sensor proximity
30	50307	1	01-0159-109	Rotation motor assembly



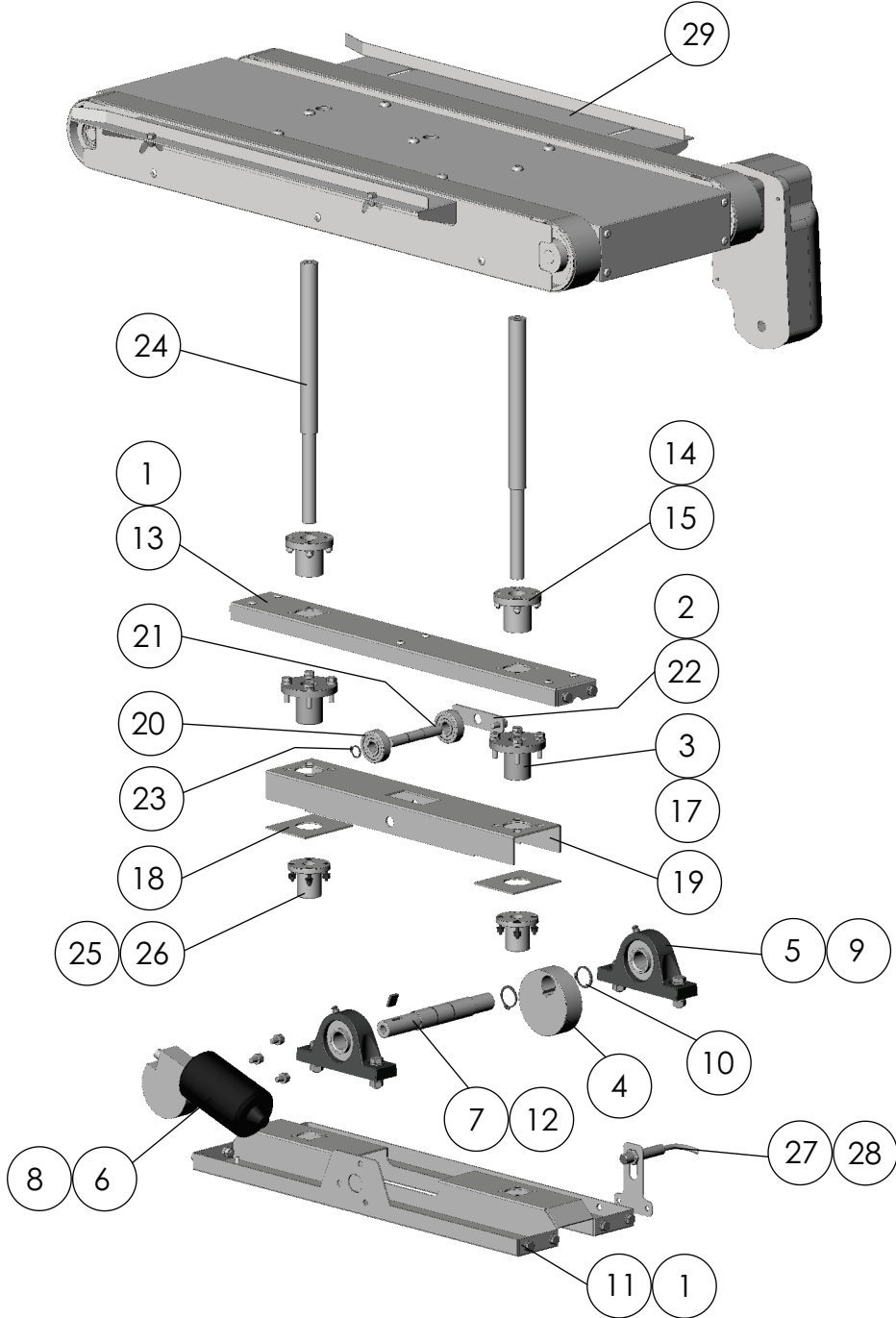
ITEM	CODE	QTY.	DRAWING	DESCRIPTION
1	50189	1	02-0159-307	Front base bucket
2	50190	1	02-0159-308	Rolls bucket base
3	50191	1	02-0159-309	Rear base bucket
4	50193	1	02-0159-310	Front lock superior bucket
5	50194	1	02-0159-311	Rear lock superior bucket
6	50256	2	03-0159-174	Roller scraper
7	50181	2	02-0159-300	Roller
8	50183	2	02-0159-302	Roll point
9	50182	1	02-0159-301	Moving roll point
10	06096	24	06096	Allen socket cap screw - M06x16-Inox 304
11	50195	2	02-0159-312	Front slide shutter
12	01994	2	01994	Stud - M08 x 100mm
13	50186	2	02-0159-304	Roller gear bush
14	50254	2	03-0159-172	Wheel traffic gear
15	50196	2	02-0159-313	Rear bush (gear)
16	50185	1	02-0159-303	Roller drive bracket
17	07923	1	07923	Allen flat head cap screw - M5x12mm
18	00961	3	00961	Allen socket cap screw - M08x20mm
19	50197	2	02-0159-315	Guide - ruler
20	29098	2	29098	Elastic ring - E-20 DIN 471
21	23683	4	23683	Allen set screws - M8x40mm
22	00419	4	00419	Hex nut - M08
23	50222	2	02-0159-367	Side of the bucket
24	00962	4	00962	Allen socket cap screw - M08x30mm
25	28221	8	28221	Hex round head cap screw - M5x16mm
26	50184	1	01-0159-0139	Driving roller set
27	20296	1	01-0159-103	Drive roller set
28	50274	1	04-0159-066	Bucket set



ITEM	CODE	QTY.	DRAWING	DESCRIPTION
1	50227	1	02-0159-392	Fork support shaft
2	00421	2	00421	Hex cap screw - M08x25 mm
3	50223	2	02-0159-382	Roller gear bush
4	00419	3	00419	Hex nut - M08
5		2	02-0159-418	Wire stretcher
6	50267	5	03-0159-193	Central cutter fork
7	50266	2	03-0159-192	Side cutter fork
8	51278	1	02-0159-401	Guide pin
9	50253	1	03-0159-171	Cam cutter lever
10	22109	1	22109	Hex cap screw - M06X16 mm
11	50260	1	03-0159-184	Lock washer - cutter
12	49377	2	49377	Elastic ring - E-14 DIN 471
13	51292	1	11-0159-013	Cushion - guide pin
14	06213	2	07-0000-005	Spring - Ø13 C98 FIO Ø1,5 mm
15	04397	2	04397	Slotted flat head cap screw M6x25 mm
16	00145	4	00145	Hex cap screw - M08x16 mm
17	00174	2	00174	Hex cap screw - M08x20 mm
18	46631	1	02-0319-037	Sliding guide
19	32005	1	12-0159-002	Stainless steel wire - Ø0,4 mm X 2 m

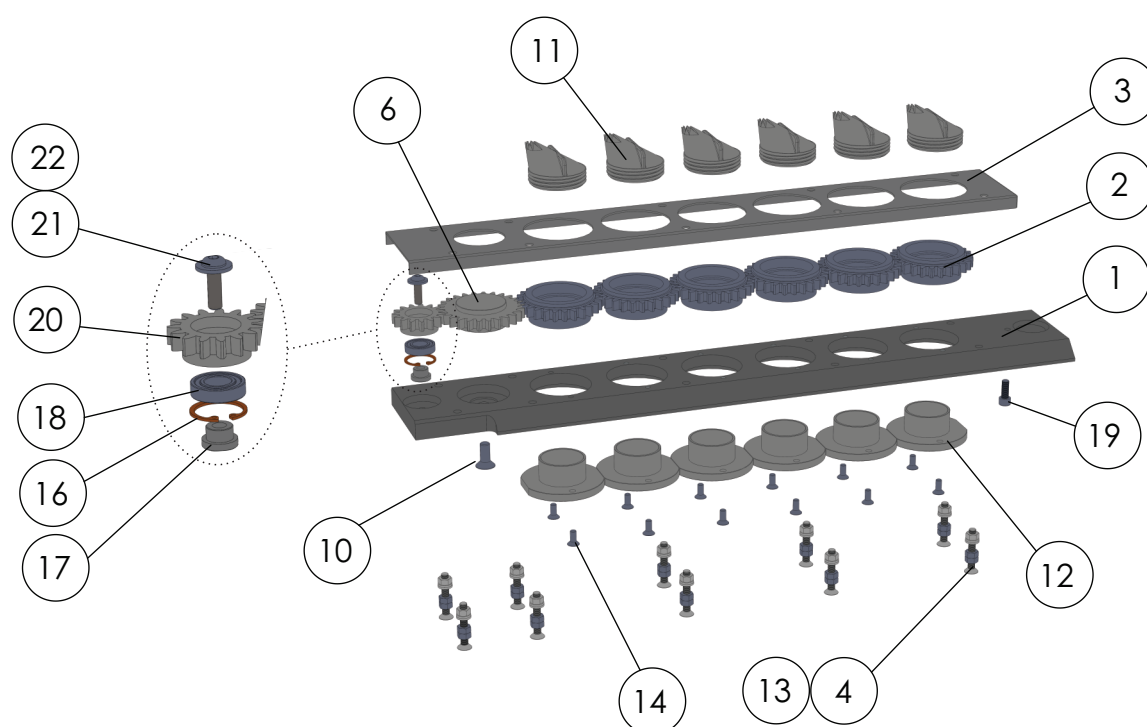


ITEM	CODE	QTY.	DRAWING	DESCRIPTION
1	47547	2	47547	Bearing - IGUS EFOI- 10 (5/8")
3	50242	1	03-0159-151	Side base - belt
4	50232	1	03-0159-136	Side base - belt
5	50231	1	03-0159-133	Main body of tray
6	50246	6	03-0159-155	Side distancer
7	45085	8	45085	Hex bush M6
8	37663	24	37663	Rivet - 3/16" x 3/8" Inox 304
9	50187	2	02-0159-305	Traction roller
10	50188	2	02-0159-306	Moving roller
11	48163	2	07-0159-011	Belt - F-11 (blue) 1700X40mm - SAMPLA
12	31945	4	31945	Bearing - SKF 6002 ZZ (d15xD32x9)
13	50198	1	02-0159-317	Roller shaft
14	50199	1	02-0159-318	Stretch shaft
15	50210	1	02-0159-330	Tray structure plate
16	09466	7	09466	Hex round head cap screw - M8x16mm
17	22122	2	22122	Hex cap screw set - M06x55mm
18	25731	2	25731	Plain washer M6
19	27243	1	27243	Engine - BOSCH CEP F006 B20 360 24V
20	50211	1	02-0159-332	Fixing the engine
21	50248	2	03-0159-162	Tray limiter base
22	50247	1	03-0159-161	Right side of conveyor belt
23	06744	4	06744	Hex cap screw - M06x10mm
24	50249	1	03-0159-163	Left side of conveyor belt
25	22953	4	22953	Allen socket cap screw with nut - M04x16mm
26	22109	4	22109	Hex cap screw - M06x16mm
27	06096	7	06096	Allen socket cap screw - M06x16mm
28	45585	2	45585	Elastic ring -E-16 DIN 471
29	06754	4	06754	Butterfly nut - Inox M6
30	30346	4	30346	Elastic ring - E-15 DIN 471
31	47593	1	12-0346-010	Bosch protection
32	50265	1	03-0159-191	Protection support sheet
33	49842	2	-	Optical sensor - SENSE MOD. OS300-CXP-PN
34	45769	4	45769	Hex cap screw - M03x16mm
35	50225	2	02-0159-388	Tray sensor support
36	00136	4	00136	Hex cap screw - M05x20mm
37	00974	2	00974	Slotted head screw - M4 x 8mm
38	48072	1	07-0000-048	Shaft key - B (plain) 15 X 12 X #2,9mm



ITEM	CODE	QTY.	DRAWING	DESCRIPTION
1	21686	18	21686	Hex cap screw set with nut - M6 x 16mm
2	22109	12	22109	Hex cap screw set - M06x16mm
3	22112	11	22112	Hex cap screw set - M06x25mm
4	50216	1	02-0159-356	Table lift cams
5	00062	2	00062	Bearing - NP-2 Ø20mm UCR 204
6	27243	3	27243	Engine - BOSCH CEP F006 B20 360 24V
7	50201	1	02-0159-319	Table cams traction shaft
8	22445	3	22445	Hex cap screw set - M6x12mm
9	22287	4	22287	Hex cap screw set with nut - M8 x 30mm
10	00039	2	00039	Elastic ring - E-22
11	50259	1	03-0159-183	Engine - BOSCH table
12	48072	2	07-0000-048	Shaft key - B (plain) 15 X 12 X #2,9mm
13	50233	1	03-0159-137	Table guide base
14	28480	2	28480	Flanged bearing - LMF 20
15	31473	8	31473	Allen socket cap screw set with nut - M05x12mm
16	37663	41	37663	Rivet - 3/16" x 3/8" Inox 304
17	50202	2	02-0159-320	Linear shaft guide bush
18	50234	2	03-0159-138	Bush lock
19	50230	1	03-0159-131	Table elevation lock
20	00784	2	00784	Bearing - ZZ (d12xD37x12)
21	50203	1	02-0159-321	Cams bearing pin
22	50238	1	03-0159-145	Cams pin lock
23	04421	1	04421	Elastic ring - E-12
24	50180	2	02-0159-089	Table elevation shaft
25	26390	2	26390	Flanged bearing - LMF 16 UU
26	23127	8	23127	Allen socket cap screw set with nut - M04x16mm
27	15095	3	-	Inductive sensor proximity
28	50269	1	03-0159-195	Table sensor base
29	50309	1	01-0159-104	Conveyor belt set





ITEM	CODE	QTY.	DRAWING	DESCRIPTION
1	50317	1	02-0159-336	Rotation ruler
2	50038	6	12-0319-001	Gear - Z26 M2,5
3	50318	1	03-0159-158	Rotation ruler closure
4	22714	9	22714	Allen flat head cap screw with nut - M6x40mm
5	30430	1	30430	Bearing - SKF 6003 ZZ (d17xD35x10)
6	46803	1	02-0319-072	Gear 2 - Rotation
7	46701	1	02-0319-082	Gear shaft
8	24687	1	24687	Elastic ring - I-35
9	01881	1	01881	Elastic ring - E-17
10	03817	1	03817	Allen flat head cap screw - M8x20mm
11	45851	6	07-0319-002	Excentric strike nozzle - N°2
12	46644	6	02-0319-046	Bush
13	00410	20	00410	Hex nut - M06
14	07923	12	07923	Allen flat head cap screw - M5x12mm
15	22714	1	22714	Allen flat head cap screw with nut - M6x40mm
16	24678	1	24678	Elastic ring - I-24
17	50319	1	02-0159-340	Gear shaft
18	02249	1	02249	Bearing - ZZ (d12xD24x6)
19	06096	1	06096	Allen socket cap screw - M06x16mm
20	50320	1	02-0159-339	Traction gear
21	00418	1	00418	Plain washer - M08
22	00996	1	00996	Hex round head cap screw - M6x20mm

## ACCESSORIES

### ATTENTION

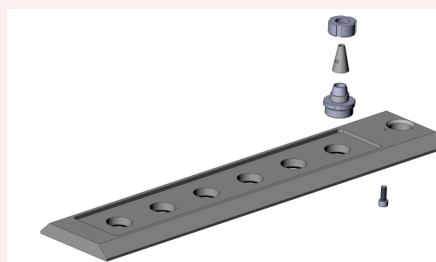
YOUR DEVICE MAY NOT INCLUDE ALL ACCESSORIES WHICH CONTAINS THIS MANUAL

IT MAY BE ACQUIRED IN SERVICE **MCI**

DOSING ruler set

01-0159-133

code 50325



1 unit

CUTTER ruler set

01-0159-108

code 50323

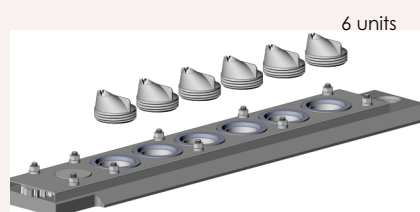


1 unit

ROTATION ruler set

01-0159-106

code 50321



1 unit

SMOOTH STRAIGHT  
NOZZLE N°4

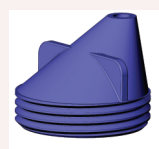
code 47616



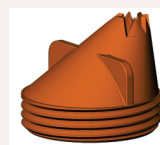
6 units

STRETCH STRAIGHT  
NOZZE N°4  
code 47617

6 units

SMOOTH EXCENTRIC  
NOZZLE N°1  
code 46842

6 units

STRETCH EXCENTRIC  
NOZZLE N°1  
code 46845

6 units

SMOOTH STRAIGHT  
NOZZLE N°2

code 45856



6 units

STRETCH STRAIGHT  
NOZZLE N°2  
code 45853


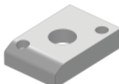





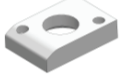
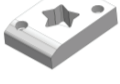



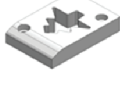


6 units

CUTTER NOZZLES

\*\* Choose a format  
(see optional formats next  
page)

6 units

CUTTER OPTION FORMATS (the machine comes with 6 units)

<p>Cutter nozzle Ø 45mm 0027399 02-0159-238</p> 	<p>Cutter nozzle Ø 22mm 0035945 02-0159-084</p> 	<p>Cutter nozzle "Cruz" Ø32mm 0044779 02-0159-262</p> 	<p>Cutter nozzle "Flor" Ø32mm 0044780 02-0159-261</p> 
<p>Cutter nozzle Ø 40mm 0035944 02-0159-083</p> 	<p>Cutter nozzle "Coração" Ø32mm 0044781 02-0159-260</p> 	<p>Cutter nozzle "Pingo" Ø35mm 0044778 02-0159-263</p> 	
<p>Cutter nozzle Ø 30mm 0043067 02-0159-255</p> 	<p>Cutter nozzle "Estrela" Ø32mm 0044783 02-0159-259</p> 	<p>Cutter nozzle Ø25mm 0044777 02-0159-264</p> 	
<p>Cutter nozzle "Sino" Ø43mm 0046302 02-0159-293</p> 	<p>Cutter nozzle "Bota" Ø45mm 0046303 02-0159-294</p> 	<p>Cutter nozzle "Árvore" Ø44,5mm 0046304 02-0159-295</p> 	
<p>Cutter nozzle "Quadrado" Ø45mm 0046491 02-0159-297</p> 	<p>"Holes" Ø12mm 0046343 01-0159-089</p> 		

EQUIPMENT WARRANTY MCI lasts for ONE YEAR, and starts from the date of issue of the invoice, in accordance with the law 8078 of September 11, 1990, since the start-up of the equipment is made by a technical MCI.

WARRANTY MCI is the substitution of parts and or services that are defective, including engines and electrical components in the period of 12 months from the date of issue of the invoice, provided that such defects are not caused by misuse, poor maintenance, changes made by third parties without consent of MCI Technical assistance.

In cases of WARRANTY, MCI Technical Assistance will identify the part and the problem and make the guidance for the exchange to take effect. A new part will be sent and the defective part must be sent by the customer to MCI factory within fifteen (15) days.

1. From time technical conditions for Training and Re-Training:

1.1. The Technical Training duration is 16 hours.

Note: The electrical preparation, gas and hydraulic (when necessary) runs by the customer and should be ready upon receipt of technical training, and the client informed of the need for the equipment purchased. If there is delay the start of Technical Training for this reason, the elapsed time will be deducted from the hours you are entitled to.

1.2. extra visits for product adjustment or operator training, the 30-day period from the date of Technical Training has received no charge technical time and scheduling is done with the Technical Assistance.

1.3. extra visits for product adjustment or operator training, after the period of 30 days from the date of Technical Training, has time to charge crafted the cost of R \$ 120.00, by scheduling done Technical Support.

1.4. For products that do not include Technical Training, such as Mini Party, Pratic, Pratic 2R, TD 50, TD13, Battering, Dosing Multi Party, if there is request Technical Training or RE-Training, will be charged the hour worked at a cost of R \$ 120.00 by scheduling done Technical Support.

2. From the coach travel expenses for the Client Company:

2.1. It is the customer's account for the coach travel expenses MCI factory or local representative to the customer's company, and room and board for the implementation of technical training or RE Technical Training, or execution of the service in WARRANTY or preventive maintenance or corrective maintenance;

2.2. The technician's travel to the Client Company, execution of services and consequent return to MCI should preferably be done during business hours. is excluded cases there is no option and subject to authorization by the Technical Assistance;

2.3. In the case of displacement of technicians with MCI vehicles will be considered a cost of R \$ 1.20 / km run already included insurance fee for vehicle and driver;

2.4. Charges of expenses will be through the issuance of invoice service and payment term of 28 days of execution of the same put through credit analysis, there may be cases that will only be released with advance payment as budget informed by the Technical Assistance or Representative MCI.

3. From the costs of shipping the equipment to MCI:

3.1. If there is the need to send the equipment to MCI factory in Itu / SP for warranty repairs or not, run by the customer, the shipping charges.

4. The parts coverage and or services WARRANTY:

WARRANTY NOT MCI covers parts and or services due to:

4.1. Improper use of the equipment;

4.2. Poor maintenance;

4.3. Changes made by third parties without consent of MCI;

4.4. wear parts according to the use, for example, jaws, nozzles, Jaw doors, maniples among others;

4.5. Components having random life, such as lamps, fuses and others;

4.6. electrical components subject to short-circuit; by analysis.

4.7. phase inversion in equipment with motors with a sense of interlocked rotation with limit switch;

4.8. equipment adjustment, which during use, been deregulated for malpractice in its use, or changing parameters desired by its user, such as: (burners, thermostats, pressure switches, thermometers and flame sensors), except during installation them and their regulation by MCI technician;

4.9. Malfunctions caused by low water pressure, flicker and power outages, lack of pressure or gas flow;

4.10. Lack of cleanliness that can cause a short circuit;

4.11. Assaults of electrical or electronic parts by cleaning agents such as detergents and water, use of caustic solutions;

4.12. **WARRANTY MCI does not cover loss, damage or loss of earnings resulting from inability to use the equipment in the repair services of the implementation period.**

5. From the MAINTENANCE MCI service guarantee

5.1. The period of validity of Maintenance service is ninety (90) days from the date of issue of the invoice service and parts, run by MCI or by accredited companies.

5.2. The warranty does not cover defects subsequent to MAINTENANCE, arising from related items 4.1 to 4.11.

5.3. If there is the need to send the equipment to MCI factory in Itu / SP to MAINTENANCE, run by the customer, the shipping charges.

5.4. The MCI coach displacement of the expenses are paid by the customer, as related items 2.1 to 2.5.

6. WARRANTY MCI is invalidated when:

6.1. Installation and maintenance of equipment is made by professionals or companies not accredited by MCI Metallurgical Convention Itu Ltda.

6.2. transportation accidents, prior to use, or by natural causes, such as floods, fires or other.

6.3. When the equipment has received ill-treatment, or changes / modifications not authorized by the factory.

**MCI Metal Itu LTDA Convention NOT WARRANT no professional or companies assume on its behalf any responsibility relating to the warranty of their products beyond the here explained.**

**MCI reserves the right to modify the technical and aesthetic characteristics of their products without prior notice.**