

# HAMBURGER FORMING MACHINE

Mod. SUPER



**GASER**

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# 1. INDUSTRIAS GASER

Since its foundation in 1969, INDUSTRIAS GASER has specialised in manufacturing a range of stainless-steel machinery for the meat industry.

Since 1985 we have constantly developed technology for GASER-brand hamburger-forming machines, developing a distinctive system based on a SIMPLER, MORE EFFECTIVE AND MORE ECONOMICAL TECHNIQUE.

In the 1990s, INDUSTRIAS GASER expanded into markets in various countries around the world, and not just in the hamburger sector.

We are aware that our work would be of no value without the trust of our existing clients and partners or the interest shown by those who wish to join them.

We thank them all.



**INDUSTRIAS GASER**

*Salt, Girona, SPAIN*



**GASER EUROPA**

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For more information about the company and its products: [www.gaser.com](http://www.gaser.com)

## 2. EC DECLARATION OF CONFORMITY

We declare under our responsibility that the following machine:

Brand: GASER

Model: SUPER

Serial no.

Year of construction:

is in conformity with the following regulations

UNE-EN ISO 12100:2012

UNE-EN ISO 14120:2016

UNE-EN ISO 14121-1:2008

UNE-EN 60204-1:2007 60204-1:2007 CORR. 2010 60204-1:2007/A1:2009

UNE-EN ISO 13849-1:2008/AC:2009

and is in conformity with the following directives

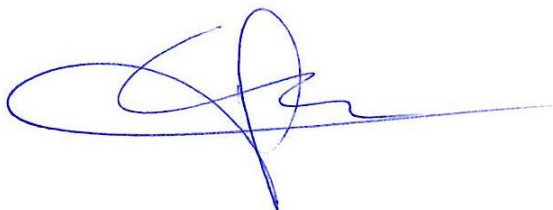
Machinery directive: 2006/42/CE

Low voltage directive: 2014/35/UE

Electromagnetic compatibility directive: 2014/30/UE

It is forbidden to make any change or modification to the machine without the prior written permission of our technical department. Use of the machine in these conditions could cause accidents, in which case INDUSTRIAS GASER S.L. accepts no liability for the improper use of the machine.

Salt,



CARLOS GARGANTA SERRAMITJA

TECHNICAL DIRECTOR INDUSTRIAS GASER S.L.

### 3. HYGIENE CERTIFICATE

We declare the machine:

Brand: GASER

Model: SUPER

Serial no.

Year of construction:

is in conformity with the following regulations

Regulation (EC) 1935/2004, materials and articles in contact with food, repealing Directives 80/590/EEC and 89/109/EEC.

This means that all of the types of steel and plastic from which the machine is constructed and which are in contact with the meat comply with the hygiene rules and regulations in force.

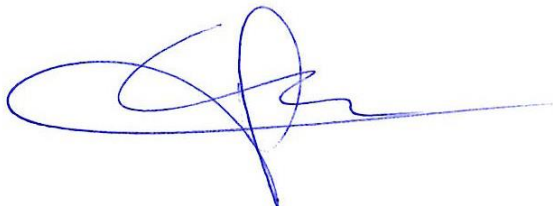
\* Plastic material: polyethylene terephthalate (PETP), white, density 1.37 g/cm<sup>3</sup>,

Manufactured in accordance with DIN 50014.

\* Stainless steel: AISI 304, manufactured in accordance with European regulations EN-10088,

Chemical composition: C≤0.07% Si≤0.75% Mn≤2% Cr=18-19% Ni=8-10%

Salt,



CARLOS GARGANTA SERRAMITJA

TECHNICAL DIRECTOR INDUSTRIAS GASER S.L.

## 4. INTRODUCTION

Before using or handling the machine, you must read this manual carefully.

The instructions in this document are, whenever possible, accompanied by illustrations to help with understanding of how to start, use and clean the machine.

This manual is subject to amendment.

### 4.1 Safety

It is forbidden to make any change or modification to the machine without the prior written permission of our technical department. Use of the machine in these conditions could cause accidents, in which case INDUSTRIAS GASER S.L. accepts no liability for improper use of the machine.

The machine has been designed for use with food products and must be used in the way described in this manual. Any use other than the specified one will involve risk for the user and for the machine. INDUSTRIAS GASER S.L. accepts no liability either for damage to the machine or personal injury or injury to third parties that this use might cause.

### 4.2 Hygiene

All of the materials used in the manufacture of the machine and which come into contact with food comply with Regulation 1935/2004. Consequently, the machine has the CE mark.

It is not recommended to use detergents containing chlorine, any of its derivatives or any other product that could damage the construction materials of the machine.

## 5. TECHNICAL SPECIFICATIONS

1. Tabletop machine
2. Can be dismantled for ease of cleaning
3. Easy maintenance
4. Made from stainless steel and plastics suitable for use with food
5. Frequency converter
6. Capable of placing paper on one side
7. Produces round patties of 30 to 120 mm diameter and other shapes (these must be concentric with a circle and of the measurements mentioned above)
8. Weight controllable with a maximum patty thickness of 25 mm
9. Produces 20 to 60 patties/minute
10. Capacity: 15 kg mixture
11. Motor power (single-phase) 750W, 220V, 50Hz.
12. Dimensions of assembled machine: 650 × 450 × 740 mm
13. Machine weight: 77 kg

## 6. RECEIPT AND START-UP

### 6.1 Receipt

When you receive the machine, you must first check that it is in perfect conditions, without any damage, dents or knocks.

If there is any problem, we advise you notify the distributor or INDUSTRIAS GASER S.L. directly.

### 6.2 Start-up

1. These machines essentially consist of 3 parts: chassis, former unit and tank.



Image 1. Main parts

2. It is important that when the machine starts working, it is completely clean to ensure it works properly.
3. The SUPER model hamburger forming machine works on single phase 220 V 50 Hz electrical current.



4. Before starting production, if it has not been calibrated previously, the thickness of the patty must be calibrated. To do so, follow these steps:
  - 4.1. Pull on the latch (Pos. 8, external weight control overview) to expose the calibration gears (Pos. 1, external weight control overview).



Image 2, Calibration 1

- 4.2. Turn the plate (Pos. 1, external weight control overview) clockwise to increase the thickness and anti-clockwise to reduce it. Each turn of the plate changes the thickness of the patty by 1 mm.

It is vital that when you perform the calibration of the thickness of the patties, the calibration gear makes full turns, so that the mark on the gear lines up with the arrow on the protection.

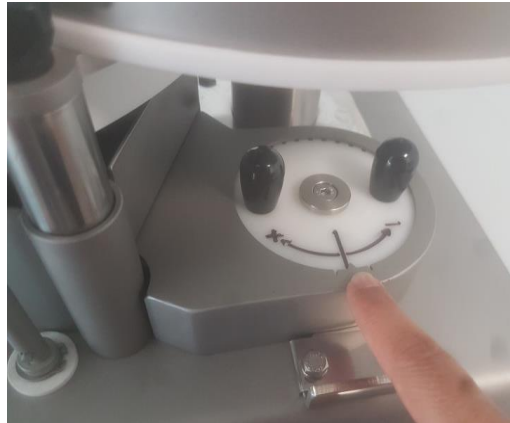


Image 3, Gear position

5. To start production, first fill the machine's tank (Pos. 8, tank overview) with the mixture you wish to use.
6. Next, start the machine up using the main switch (Pos. 3, electrical cabinet overview). Once the machine is ON, press the green "START" button (Pos. 15, overview) and make 2 or 3 patties in manual mode (Pos. 4, electrical cabinet overview) to check that the weight is correct. If the weight of the product has to be modified with meat in the machine, it is vital that all of the plate holes

(Pos. 2, former shaft overview) are exposed. Once the desired weight has been found, select the automatic mode and press the green start button again.

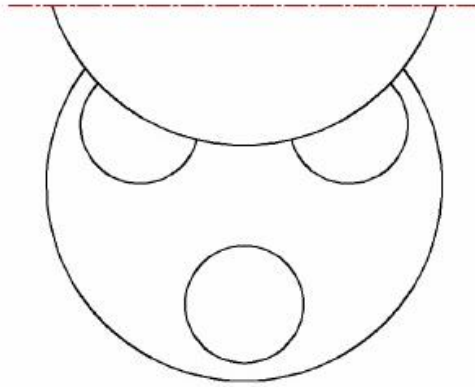


Image 4, Position of the plate

7. If the patties are seen to come out with a layer above the plate or they are not well compacted, this can be adjusted using the weight calibration gear. Turn it a few degrees to the left or right until the mark on the gear lines up with the grooves on the protection.



Image 5, calibration 1



Image 6, calibration 2

8. To extract the patties, use the slice designed for this purpose, sliding it over the plate (Pos. 12, overview), keeping it completely flat.

The slice must be kept clean at all times. We recommend providing a container with water to wet the slice and keep it damp during this process.

## 6.3 Notes

### 6.3.1 Changing patty shape

To change the shape of the patties, first disassemble the machine as shown in point “7 CLEANING”.

Once the machine has been disassembled, you can change the shape of the patties and reassemble the machine by reversing the order of disassembly.

Remember that when you change the shape, the weight might vary.

### 6.3.2 Paper dispenser

To place paper on the patties, fit the paper dispenser (Pos. 5, overview). First, insert the shaft. Next, insert the guide into the former shaft keeping it as horizontal as possible.



Image 7, Inserting axle



Image 8, Inserting guide

Insert the paper discs so that the waxed side faces downwards in the dispenser, as this is the side that will be in contact with the mixture.

## 7. CLEANING

When you have finished using the machine, it must be cleaned. To do so, follow these steps:

1. First, remove the paper dispenser unit, keeping it as horizontal as possible when lifting it.



Image 9, Removing paper positioner

2. Next, remove the tank (Pos. 8, tank overview). To do this, lift the cover of the tank (Pos. 15, tank overview), extract the safety mechanism guide tube (Pos. 9, safety mechanism overview) and then turn the tank clockwise.



Image 10, Lifting lid



Image 11, Safety guide tube



Image 12, Turning tank clockwise



Image 13, Removing tank

3. Remove the vanes (Pos. 16, tank overview), loosening the safety screw (Pos. 9, tank overview) by turning it clockwise.



Image 14, Removing safety screw



Image 15, Removing vanes

4. Next disassemble the base of the tank (Pos. 3, tank overview). The two knobs must be removed (Pos. 14, tank overview).



Image 15, Removing knobs



Image 14, Removing tank base

5. Finally, remove the former (Pos. 2, former shaft overview) by loosening the former shaft nut (Pos. 5, former shaft overview).



Image 16. Removing former shaft nut



Image 17. Removing former unit

6. Clean the disassembled components with pressurised water and dry well, using compressed air if possible. Clean the machine's chassis with a damp cloth. Never clean it with pressurised water.



Image 18. Machine ready for cleaning

## 8. MAINTENANCE

This machine requires virtually no maintenance. Even so, there are a few details that must be taken into consideration.

1. Periodically check the condition of all moving parts: retainers, gears and bearings.
2. Periodically check the condition of the extractor slice thread (Pos. 12, overview).  
If it is necessary to change the thread, to remove it, bend the slice, then you can easily remove the thread and replace it with a new one.



Image 19, Folding to remove thread

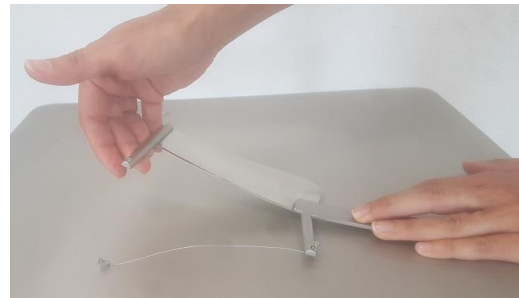


Image 20, removing thread

3. Periodically check the condition of the gear motor.
4. Periodically check the condition of the safety elements.
5. Periodically check the general condition of the machine.

## 9. TROUBLESHOOTING

The table below lists the problems that might occur with the machine, their potential causes and how to solve them.

| <b>Problem</b>   | <b>Cause</b>   | <b>Solution</b>                           |
|--|--|---|
| The machine does not start   | Machine unplugged                                      | See manual "6.2. Start-up", point 3       |
|  | The safety elements have not been fitted               | Fit safety elements                       |
| The machine still does not start   | Safety sensors have come lose.                         | Calibrate security sensors                |
|  | Electrical connections or components in poor condition | See manual "8. Maintenance", point 4      |
| The patties do not come out well formed (too little or too much mixture) | Too little or too much mixture                         | See manual "6.2. Start-up", point 7       |
| The patty deforms with the extractor slice.                              | The mixture is not correct.                            | The mixture should be smoother or colder. |
|  | Incorrect use of the slice                             | See manual "6.2. Start-up", point 8       |
|  | Slice thread in poor condition                         | Change thread                             |



## 10. GENERAL DIAGRAM

### 10.1 Overview

| Number | Description                                  | Reference        | Units |
|--------|--|------------------|-------|
| 1      | CHASSIS UNIT                                 | S1010000         | 1     |
| 2      | FORMER SHAFT UNIT                            | S1020000         | 1     |
| 3      | TANK UNIT                                    | S1030000         | 1     |
| 4      | EJECTOR UNIT                                 | PLEASE CONSULT   | 3     |
| 5      | PAPER DISPENSER                              | PLEASE CONSULT   | 1     |
| 6      | EXTERNAL THICKNESS CONTROL UNIT              | S1120000         | 1     |
| 7      | SAFETY MECHANISM UNIT                        | S1150000         | 1     |
| 8      | MAIN PROTECTION UNIT                         | S1160000         | 1     |
| 9      | ELECTRICAL CABINET UNIT                      | S1250000         | 1     |
| 10     | STAINLESS CHEESE HEAD SCREW M6 x 16<br>DIN84 | FE0108M060160084 | 2     |
| 11     | STAINLESS CHEESE HEAD SCREW M6 x 20<br>DIN84 | FE0108M060200084 | 2     |
| 12     | EXTRACTOR SLICE                              | S1000100         | 1     |
| 13     | POTENTIOMETER                                | EL102010KM22     | 1     |
| 14     | EMERGENCY STOP                               | SS530000         | 1     |
| 15     | GREEN PUSH BUTTON                            | SS510000         | 1     |
| 16     | TEARDROP TYPE GASER BRAND STICKER            | PA0230GGASER     | 1     |
| 17     | GASER BRAND STICKER                          | PA0230SUPER      | 1     |
| 18     | BASIC/SUPER/MAXI TANK STICKER                | PA0230TSUPER     | 1     |

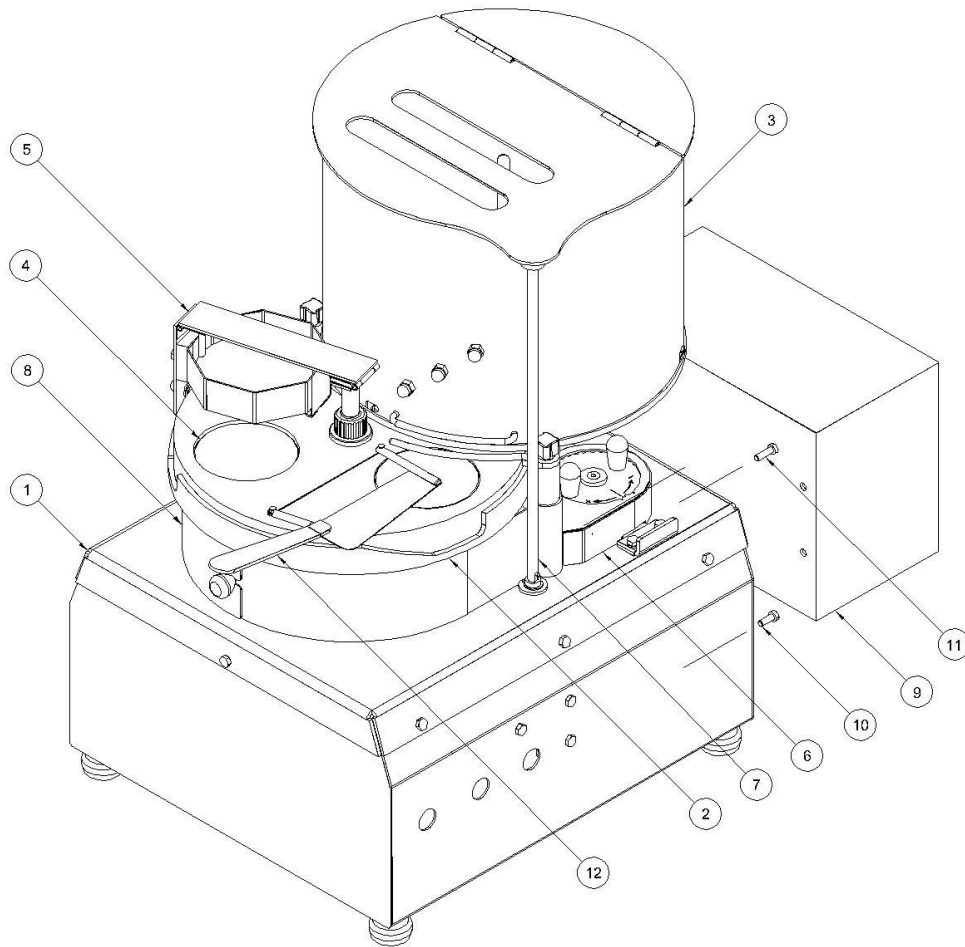


Figure 1, Standard overview 1



Figure 2, Standard overview 2

## 10.2 Chassis overview

Ref. S1010000

| Position | Description                               | Reference        | Units |
|----------|---|------------------|-------|
| 1        | CHASSIS                                   | S1010100         | 1     |
| 2        | MOTOR SUPPORT                             | S1010400-E       | 1     |
| 3        | LIFTING RAMP                              | S1020900         | 1     |
| 4        | STAINLESS HEX NUT M10 DIN934              | FE0108M100000934 | 5     |
| 5        | STAINLESS STEEL/RUBBER FOOT D-40          | SI0226PID40M10   | 4     |
| 6        | STAINLESS HEX SCREW M10 × 12 DIN933       | FE0108M100120933 | 2     |
| 7        | STAINLESS HEX SCREW M6 × 12 DIN933        | FE0108M060120933 | 8     |
| 8        | STAINLESS HEX LOCK NUT M6 DIN985          | FE0108M060000985 | 1     |
| 9        | STAINLESS HEX NUT M6 DIN934               | FE0108M060000934 | 1     |
| 10       | STAINLESS ALLEN GRUB SCREW M6 × 16 DIN913 | FE0108M060160913 | 1     |
| 11       | STAINLESS WASHER M10 DIN125               | FE0108M100000125 | 5     |
| 12       | NATURAL POLYAMIDE TUBE 12 × 10 mm         | SI0236TPA1210    | 2     |
| 13       | STAINLESS HEX LOCK NUT M10 DIN985         | FE0108M100000985 | 2     |
| 14       | STAINLESS HEX SCREW M10 × 45 DIN933       | FE0108M100450933 | 1     |
| 15       | STAINLESS HEX SCREW M10 × 55 DIN933       | FE0108M100550933 | 1     |
| 16       | STAINLESS HEX SCREW M6 × 16 DIN933        | FE0108M060160933 | 3     |
| 17       | STAINLESS WASHER M6 DIN125                | FE0108M060000125 | 3     |
| 18       | SAFETY MECHANISM SLEEVE                   | S1150100         | 1     |
| 19       | MOTOR SUPPORT THREADED ROD                | S1012000         | 1     |

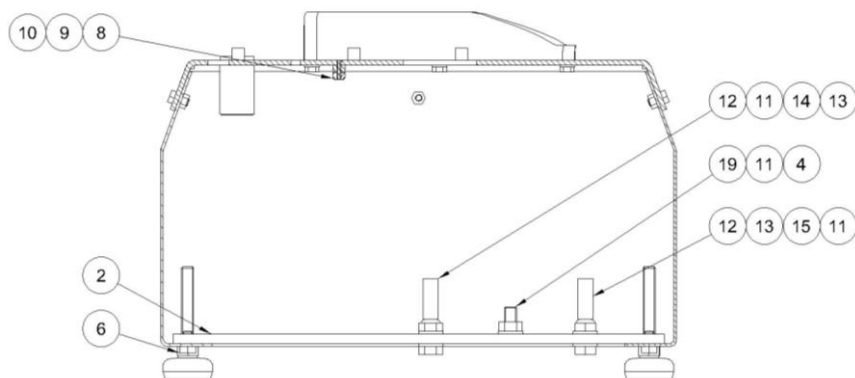


Figure 3, Chassis overview 1

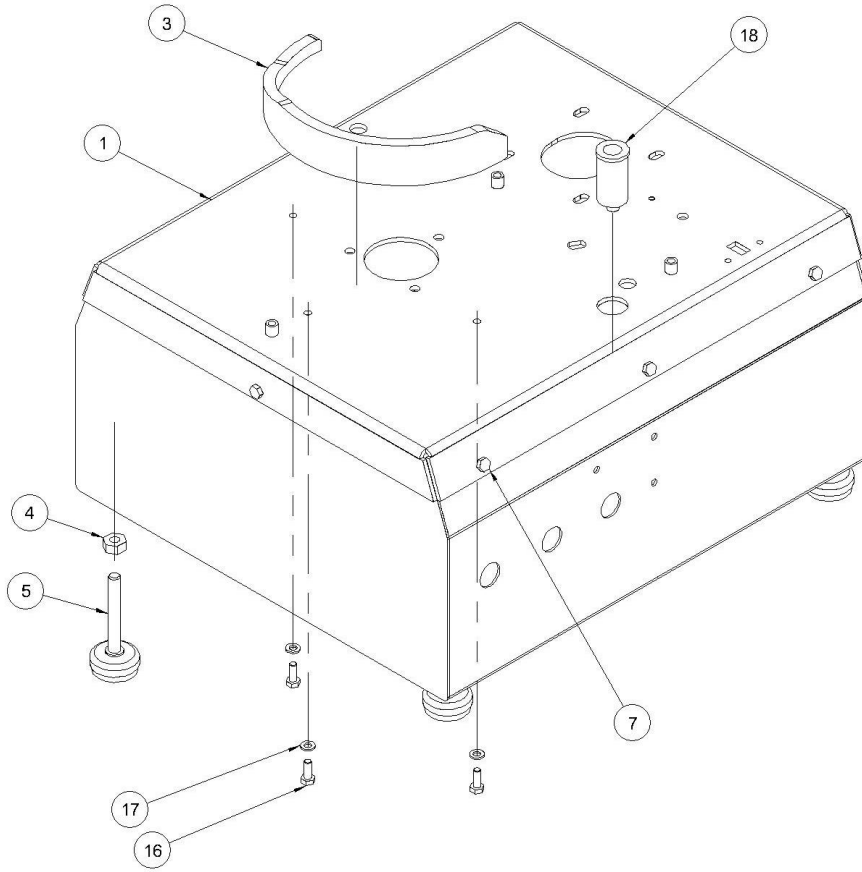


Figure 4, Chassis overview 2

### 10.3 Former shaft overview

Ref. S1020000

| Position | Description                        | Reference        | Units |
|----------|------------------------------------|------------------|-------|
| 1        | FORMER BEARING HOUSING UNIT        | SS910000         | 1     |
| 2*       | FORMER Ø100                        | S1020100         | 1     |
|          | FORMER Ø118                        | S1020100-118     | 1     |
|          | FORMER Ø50                         | S1020100-50      | 1     |
| 3        | CAM PLATE                          | S1020600         | 1     |
| 4        | FORMER TOOTHED WHEEL               | S1020300         | 1     |
| 5        | FORMER SHAFT NUT                   | S1021500         | 1     |
| 6        | EJECTOR SUPPORT                    | S1020700         | 1     |
| 7        | STAINLESS WASHER M8 DIN125         | FE0108M080000125 | 3     |
| 8        | STAINLESS HEX SCREW M8 x 40 DIN933 | FE0108M080400933 | 3     |
| 9        | SHAFTS WASHER                      | S1021700         | 1     |
| 10       | STAINLESS HEX SCREW M6 x 25 DIN933 | FE0108M060250933 | 1     |

\*Formers of different diameters, information available on request.

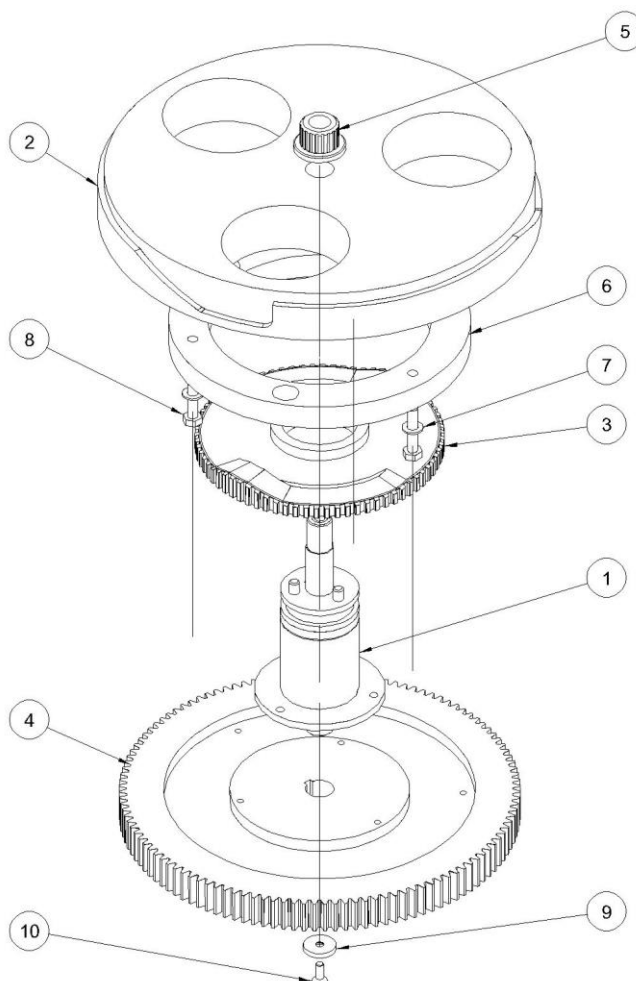


Figure 5, Former shaft overview

### 10.3.1 Overview complete former bearing housing

Ref. SS910000

| Position | Description                     | Reference        | Units |
|----------|---------------------------------|------------------|-------|
| 1        | FORMER SHAFT CORE               | S1021900         | 1     |
| 2        | FORMER UNIT SHAFT               | S1020200         | 1     |
| 3        | FORMER CENTRING RING            | S1020500         | 1     |
| 4        | RETAINING SEAL                  | SI0209R254707    | 1     |
| 5        | E-52 DIN472 STAINLESS CIRCLIP   | SI0109I520472    | 1     |
| 6        | BEARING                         | SI0109CI255215   | 2     |
| 7        | FORMER BOX SEPERATOR            | S1021400         | 1     |
| 8        | AXIAL BEARING                   | SI0509115        | 1     |
| 9        | FORMER LOWER BEARING HOUSING    | S1020400         | 1     |
| 10       | PLATE SUPPORT WASHER            | S1022200         | 1     |
| 11       | RETAINER HOUSING                | S1030600         | 1     |
| 12       | ALLEN GRUB SCREW M8 x 12 DIN913 | FE0108M080120913 | 1     |

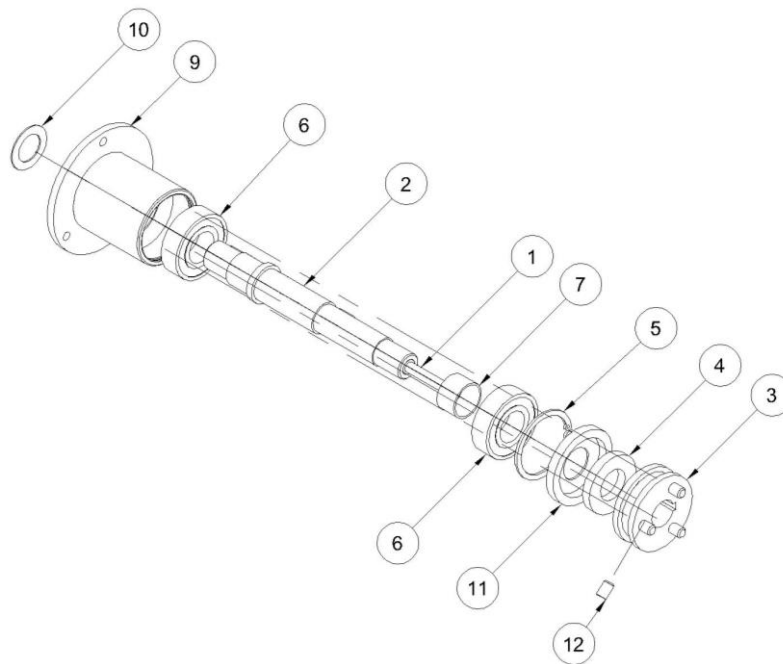


Figure 6, Complete former bearing housing overview

## 10.4 Tank overview

Ref. S1030000

| Position | Description                                     | Reference        | Units |
|----------|---|------------------|-------|
| 1        | COMPLETE TANK BEARING HOUSING SBE               | SS910000-SBE     | 1     |
| 2        | TANK TOOTHED WHEEL                              | S1030300         | 1     |
| 3        | BASIC-SUPER TANK BASE                           | S1030100         | 1     |
| 4        | TANK BASE SUPPORT                               | S1030500         | 1     |
| 5        | TANK VANES BEARING                              | S1030700         | 1     |
| 6        | VANE CENTRAL CORE                               | S1035800         | 1     |
| 7        | SUPPORT COLUMNS TANK                            | S1030900         | 2     |
| 8        | TANK  | S1031000         | 1     |
| 9        | VANES   | S1031300         | 1     |
| 10       | PROTECTION COVER                                | S1031400         | 1     |
| 11       | TANK SHORT SHAFT                                | S1031800         | 1     |
| 12       | TANK LONG SHAFT                                 | S1031900         | 1     |
| 13       | GEARWHEEL/MOTOR SEPARATOR                       | S1032200         | 1     |
| 14       | STANDARD KNOB                                   | S1000300         | 3     |
| 15       | LID   | S1032400-B       | 1     |
| 16       | VANE SHAFT SCREW                                | S1031500         | 1     |
| 17       | STAINLESS HEX CAP NUT M8 DIN1587                | FE0108M080001587 | 3     |
| 18       | O-RING VITON FPM 70 SHA Ø32 x 2 mm              | SI060903202      | 2     |
| 19       | STAINLESS ALLEN GRUB SCREW M8 x 10 DIN 913      | FE0108M080100913 | 3     |
| 20       | FLAT HEAD STAINLESS ALLEN SCREW M6 x 20 DIN7991 | FE0108M060207991 | 5     |
| 21       | STAINLESS WASHER M6 DIN125                      | FE0108M060000125 | 4     |
| 22       | STAINLESS HEX SCREW M6x16 DIN933                | FE0108M060160933 | 4     |
| 23       | STAINLESS HEX SCREW M8 x 20 DIN933              | FE0108M080200933 | 1     |
| 24       | STAINLESS HEX SCREW M8 x 16 DIN933              | FE0108M080160933 | 3     |
| 25       | STAINLESS HEX SCREW M6 x 12 DIN933              | FE0108M060120933 | 4     |
| 26       | FLAT HEAD STAINLESS ALLEN SCREW M4 x 16 DIN7991 | FE0108M040167991 | 1     |
| 27       | STAINLESS HEX SCREW M8 x 25 DIN933              | FE0108M080250933 | 2     |
| 28       | GEAR MOTOR                                      | SS970000         | 1     |
| 29       | TANK LOWER SLEEVE B-S                           | S1032900         | 1     |
| 30       | BASIC AND SUPER SHAFT WASHER                    | S1021700         | 1     |
| 31       | TANK ATTACHMENT BOLT                            | S1032800         | 3     |
| 32       | LOWER COLUMN WASHER                             | S1032300         | 2     |
| 33       | PENNANT PIVOT                                   | S1033100         | 1     |
| 34       | PLATE SUPPORT ARM                               | S1031200         | 2     |

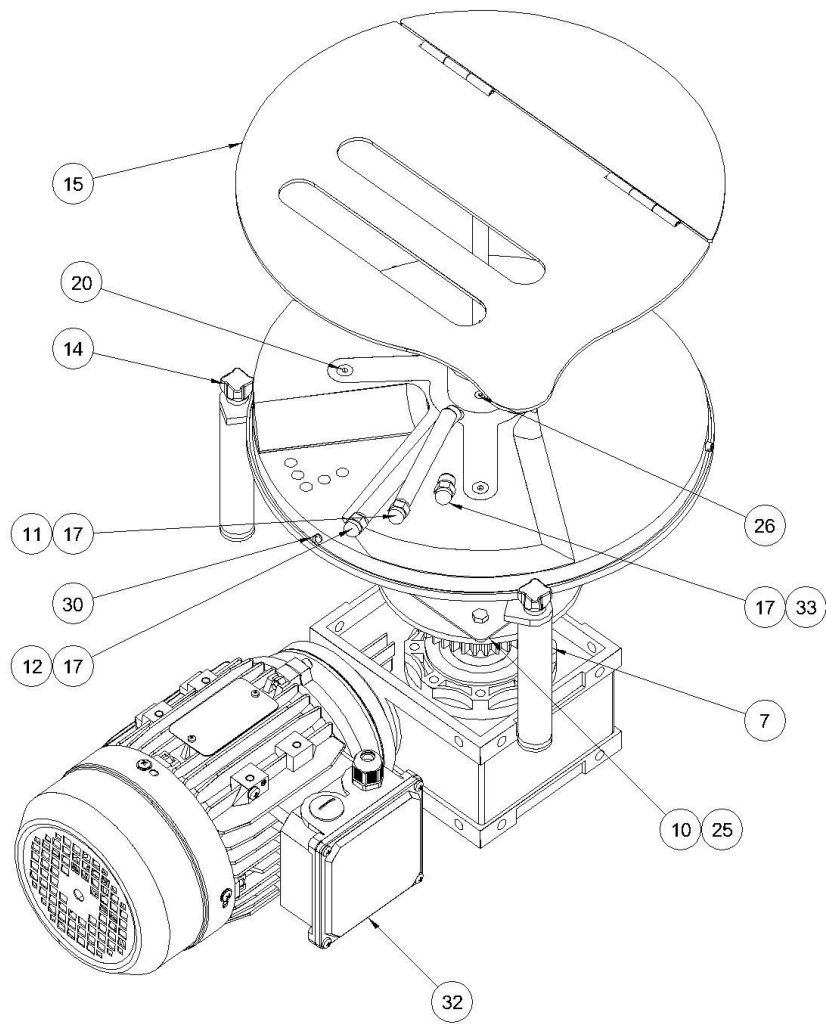


Figure 7, Tank overview 1



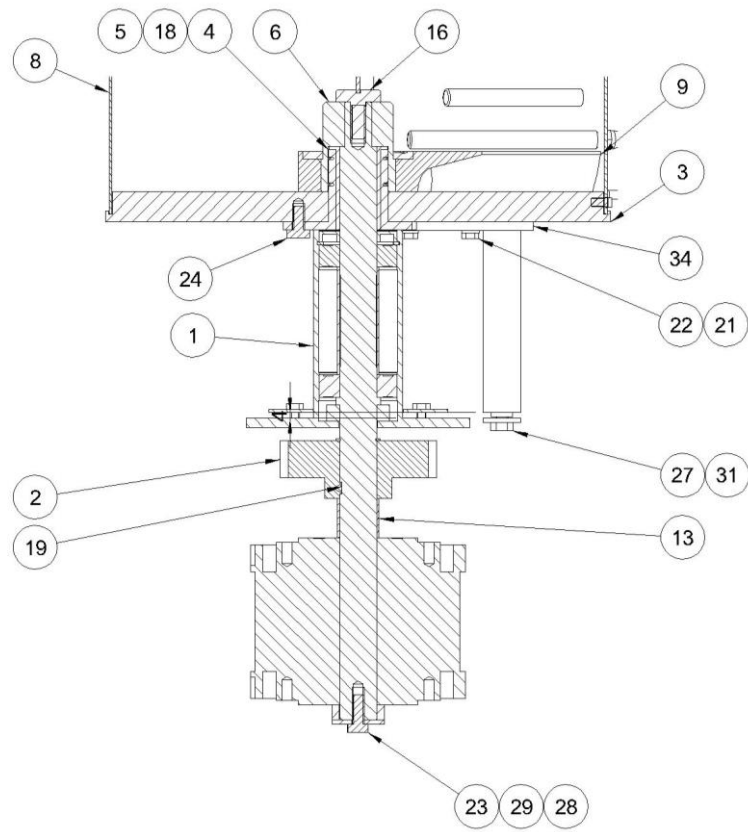


Figure 8, Tank overview 2

### 10.4.1 Overview complete tank bearing housing

Ref. SS910000-SBE

| Position | Description                   | Reference      | Units |
|----------|-------------------------------|----------------|-------|
| 1        | LOWER BEARING HOUSING TANK    | S1035400       | 1     |
| 2        | TANK BOX SEPARATOR            | S1037000       | 1     |
| 3        | TANK UNIT SHAFT               | S1035200       | 1     |
| 4        | BEARING                       | SI0109CI255215 | 2     |
| 5        | AXIAL BEARING 25-42-11 (FE)   | SI0509115      | 1     |
| 6        | RETAINER                      | SI0209R255207  | 1     |
| 7        | STAINLESS CIRCLIP E-52 DIN472 | SI0109I520472  | 1     |
| 8        | STAINLESS CIRCLIP E-25 DIN471 | SI0109E25471   | 1     |

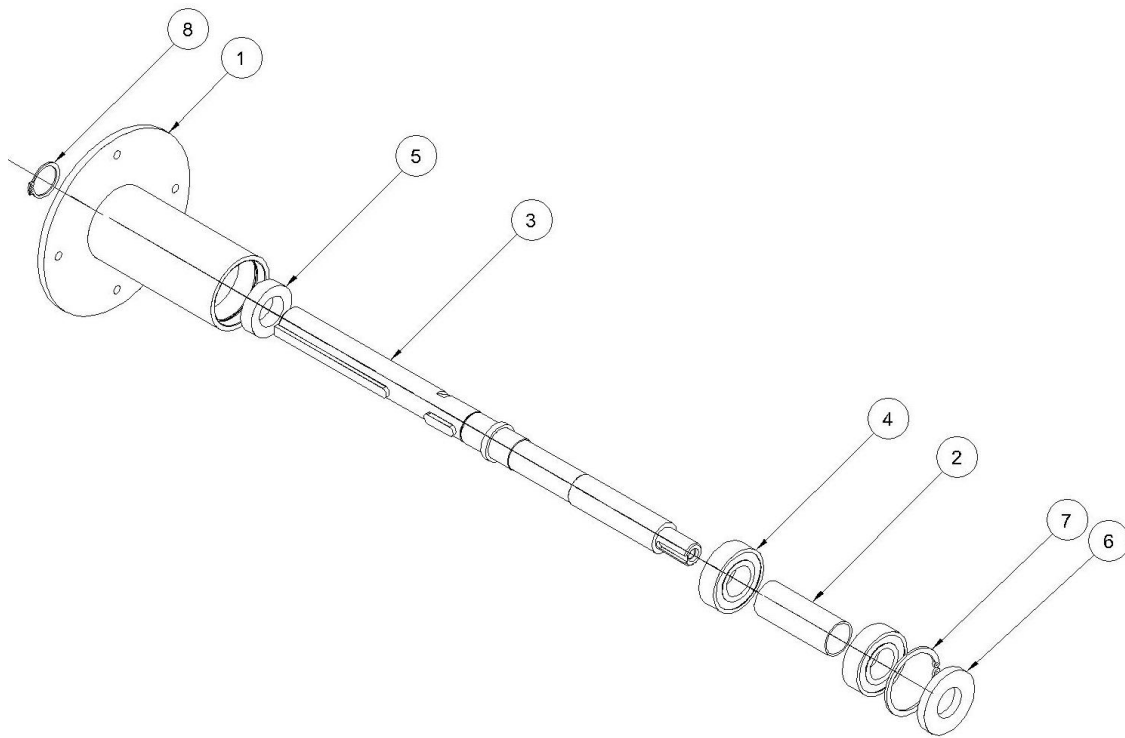


Figure 9, Complete tank bearing housing overview

### 10.4.2 Gear motor

Ref. SS970000

| Position | Description | Reference       | Units |
|----------|-------------|-----------------|-------|
| 1        | MOTOR       | EL1420BG075B14  | 1     |
| 2        | GEAR        | SI0525BR0319120 | 1     |

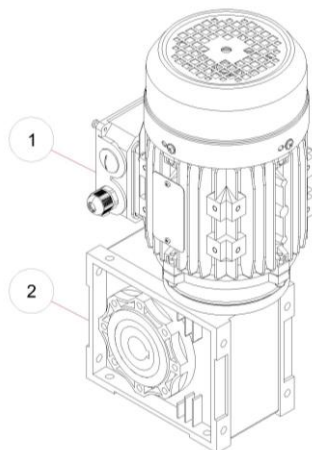


Figure 10. Gear motor overview

### 10.5 Ejector overview

Ø100 Hamburger, ref. S1040000-R

Ø118 Hamburger, ref. S1040000-118

Ø50 Hamburger, ref. S1040000-50

| Position | Description  | Reference        | Units |
|----------|--|------------------|-------|
| 1        | EXTRACTOR  | S1040200-98      | 1     |
|          |  | S1040200-118     | 1     |
|          |  | S1040200-50      | 1     |
| 2        | INNER FORMER HEAD                                  | S1040300         | 1     |
| 3        | EJECTOR  | S1040400         | 1     |
| 4        | COMPRESSION SPRING                                 | S1040500         | 1     |
| 5        | I-35 DIN 472 STAINLESS CIRCLIP                     | SI0109I350472    | 1     |
| 6        | FLAT HEAD STAINLESS ALLEN SCREW M6 x 16<br>DIN7991 | FE0108M060167991 | 1     |

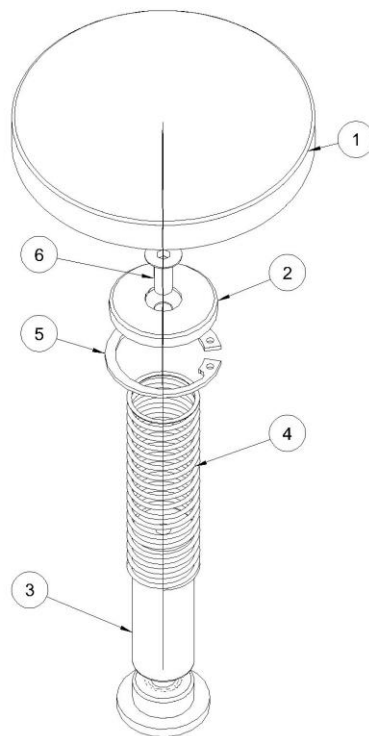


Figure 11. Ejector overview

### 10.6, Paper dispenser overview

Ø100 Hamburger, ref. S1080000

Ø118 Hamburger, ref. S1080000-118

| Position | Description  | Reference                | Units |
|----------|--|--------------------------|-------|
| 1        | PAPER DISPENSER ARM  | S1080100                 | 1     |
| 2        | BASIC/SUPER DISPENSER SUPPORT Ø100<br>BASIC/SUPER DISPENSER SUPPORT Ø118 | S1080200<br>S1080200-118 | 1     |
| 3        | DISPENSER ROLLER   | S1080400                 | 1     |
| 4        | ROLLER SHAFT   | S1080600                 | 1     |
| 5        | DISPENSER WEIGHT PLATE Ø100<br>DISPENSER WEIGHT PLATE Ø118               | S1080500<br>S1080500-118 | 1     |
| 6        | BUSHING ID8 ED10 H10   | SI04090010008010         | 2     |
| 7        | STAINLESS WASHER M8 DIN125   | FE0108M080000125         | 3     |
| 8        | STAINLESS HEX CAP NUT M8 DIN1587   | FE0108M080001587         | 1     |
| 9        | STAINLESS WASHER M6 DIN125   | FE0108M060000125         | 2     |
| 10       | STAINLESS HEX SCREW M6 × 12 DIN933                                       | FE0108M060120933         | 2     |

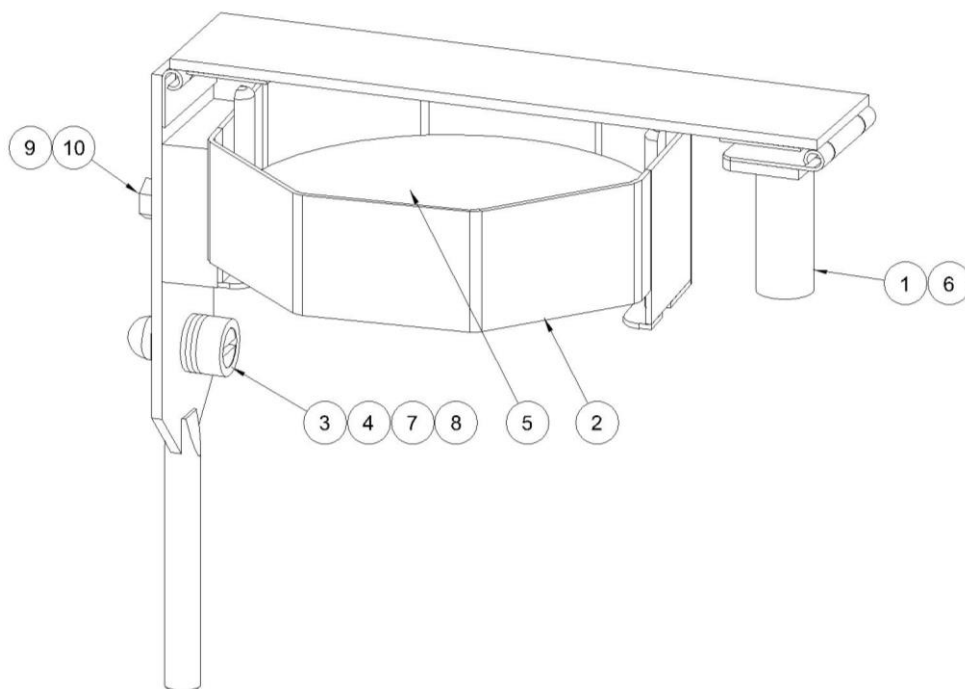


Figure 12. Paper dispenser overview

### 10.7 External thickness control overview

Ref. S1120000

| Position | Description  | Reference        | Units |
|----------|--|------------------|-------|
| 1        | EXTERIOR THICKNESS WHEEL                           | S1022700         | 1     |
| 2        | INTERMEDIATE THICKNESS WHEEL                       | S1022500         | 1     |
| 3        | CALLIBRATION WHEEL SHAFT                           | S1022600         | 1     |
| 4        | GEAR END WASHER                                    | M4000500         | 3     |
| 5        | EXTERIOR WHEEL SHAFT                               | S1022900         | 1     |
| 6        | WEIGHT CALIBRATION WHEEL KNOB                      | S1023200         | 2     |
| 7        | CALIBRATION WHEEL PROTECTION                       | S1160600         | 1     |
| 8        | WHEEL STOP   | S1023000         | 1     |
| 9        | FLAT HEAD STAINLESS ALLEN SCREW M6 x 16<br>DIN7991 | FE0108M060167991 | 3     |
| 10       | STAINLESS WASHER M6 DIN125                         | FE0108M060000125 | 4     |
| 11       | STAINLESS HEX LOCK NUT M6 DIN985                   | FE0108M060000985 | 2     |
| 12       | STAINLESS SCREW M6 x 20 DIN933                     | FE0108M060200933 | 2     |
| 13       | PRESS SPRING S1100-R2000                           | SI0114085.504808 | 1     |
| 14       | LOWER BARREL WASHER                                | S1032300         | 1     |
| 15       | STAINLESS HEX LOCK NUT M8 DIN985                   | FE0108M080000985 | 1     |
| 16       | EXTERIOR WHEEL STOP GUIDE                          | S1023100         | 1     |

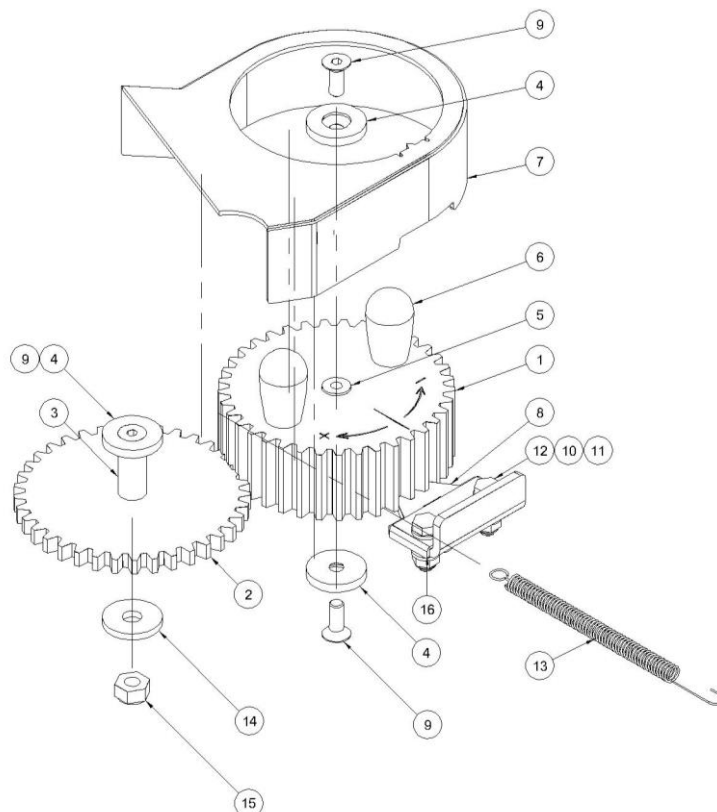


Figure 13, External thickness control overview

## 10.8 Safety mechanism overview

Ref. S1150000

| Position | Description                          | Reference        | Units |
|----------|--------------------------------------|------------------|-------|
| 1        | LIMIT SWITCH SUPPORT                 | S1150300         | 1     |
| 2        | MOELLER LS-11 LIMIT SWITCH           | EL0220LS11       | 2     |
| 3        | STAINLESS CIRCLIP E-15 DIN471        | SI0109E150471    | 1     |
| 4        | STAINLESS WASHER M4 DIN125           | FE0108M040000125 | 4     |
| 5        | STAINLESS HEX LOCK NUT M4 DIN985     | FE0108M040000985 | 4     |
| 6        | STAINLESS ALLEN SCREW M4 x 35 DIN912 | FE0108M040350912 | 4     |
| 7        | STAINLESS HEX SCREW M6 x 10 DIN933   | FE0108M060100933 | 3     |
| 8        | SAFETY MECHANISM GUIDE SHAFT         | S1150200         | 1     |
| 9        | SAFETY GUIDE TUBE                    | S1150400-E       | 1     |
| 10       | RAM LIMIT SWITCH SPRING              | SI0114159.80.75  | 1     |

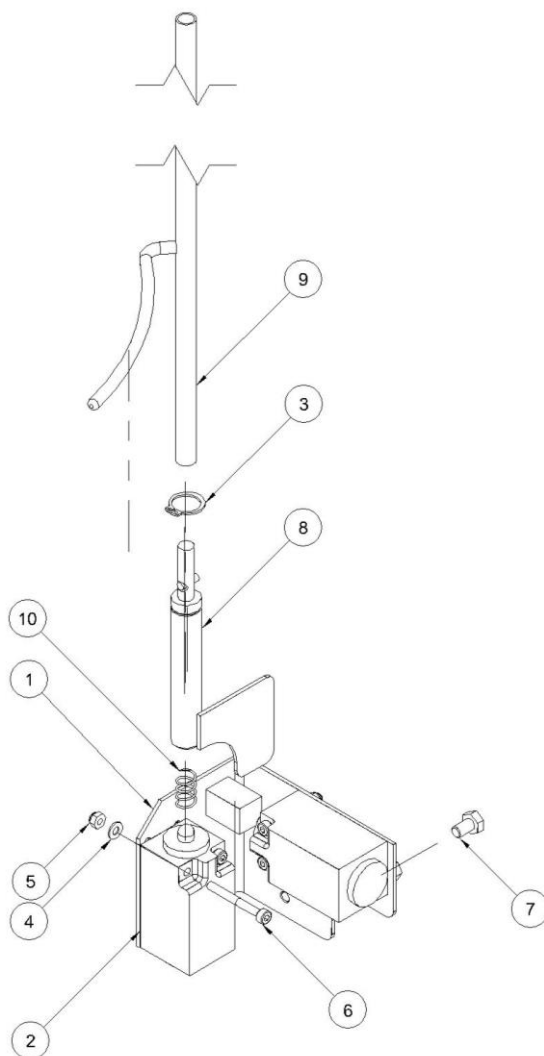


Figure 14. Safety mechanism overview

## 10.9 Protectors overview

Ref. S1160000

| Position | Description                      | Reference        | Units |
|----------|----------------------------------|------------------|-------|
| 1        | RIGHT PROTECTION                 | S1161100         | 1     |
| 2        | LEFT PROTECTION                  | S1160200         | 1     |
| 3        | REAR PROTECTION                  | S1161300         | 1     |
| 4        | DISPENSER GUIDE SLEEVE           | S1080700         | 1     |
| 5        | MECHANISM PROTECTION KNOB        | S1010300         | 1     |
| 6        | STAINLESS HEX LOCK NUT M6 DIN985 | FE0108M060000985 | 1     |
| 7        | STAINLESS HEX NUT M8 DIN934      | FE0108M080000934 | 1     |
| 8        | STAINLESS HEX LOCK NUT M8 DIN985 | FE0108M080000985 | 1     |

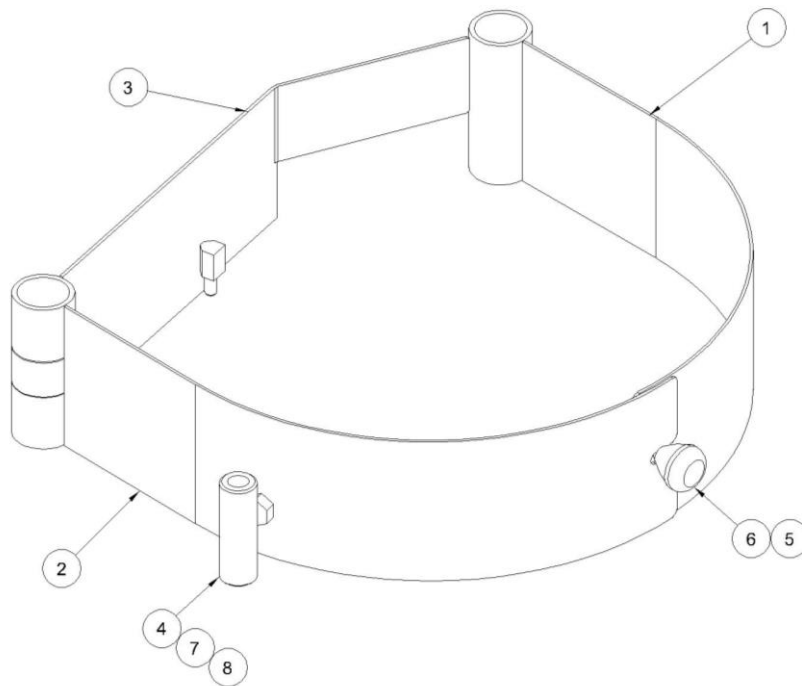


Figure 15, Protections overview



## 10.10 Electrical cabinet overview

Ref. S1250000

| Position | Description                      | Reference       | Units |
|----------|----------------------------------|-----------------|-------|
| 1        | ELECTRICAL CABINET               | EL0220CI2722A   | 1     |
| 2        | FREQUENCY CONVERTOR              | S1660000        | 1     |
| 3        | MAIN SWITCH 20A                  | EL1320IL20A     | 1     |
| 4        | AUTOMATIC/MANUAL SWITCH          | SS570000        | 1     |
| 5        | RED-GREEN PILOT LED              | EL2120PRVD22220 | 1     |
| 6        | M20 × 1.5 METAL GLAND            | EL0208RPM20     | 3     |
| 7        | M20x1.5 METAL GLAND NUT          | EL0208TPM20     | 3     |
| 8        | ORANGE 8 POLE FEMALE CONNECTOR   | EL0220C08PH     | 1     |
| 9        | SINGLE PHASE PLUG                | EL0220CEM       | 1     |
| 10       | FREE-HANGING 5P FEMALE CONNECTOR | EL0821CHA5P     | 1     |
| 11       | 4 mm <sup>2</sup> EARTH TERMINAL | EL0220BWPE04    | 2     |
| 12       | 4 mm <sup>2</sup> WDU TERMINAL   | EL0220BWDU4     | 4     |
| 13       | CIRCUIT BREAKER 6A "C" I+N       | EL0402MG6ACIN   | 1     |
| 14       | CIRCUIT BREAKER 2A "C" 1P        | EL0402MGI02A    | 1     |



Figure 17. Electrical cabinet overview

**12. WIRING DIAGRAMS**





|   |   |
|---|---|
| Empresa           GASER<br>Calle                CTRA, BESCANÓ, 15<br>CP/Localidad       POL. TORRE MIRONA 17190<br>Teléfono            +34 972 23 65 72<br>Fax                  +34 972 23 63 66<br>E-mail               gaser@gaser.com  | Obra: <b>SUPER VER 01</b><br>Referencia:<br>CP/Localidad<br>Teléfono<br>Fax<br>E-mail   |
| Nombre de proyecto<br>Descripción de proyecto<br><br>Responsable del proyecto       DEP. ELECTRICO<br>Creado                               2018<br>Final de proyecto<br>Modificado                         05/02/2018<br>de (abreviatura) | Lugar de instalación<br>Fabricante (empresa)<br><br>Alimentación                       230 VAC / 380 VAC<br>Tensión de mando                 24 V |
| Número de páginas               2   | <h1>ESQUEMAS ELÉCTRICOS</h1>  |



|        |       |        |          |                |
|--------|-------|--------|----------|----------------|
|        |       |        | Fecha    | 23/01/2018     |
|        |       |        | Resp.    | DEP. ELECTRICO |
|        |       |        | Probado  |                |
| Cambio | Fecha | Nombre | Original |                |

**SUPER VER 01**

Proyecto nº :

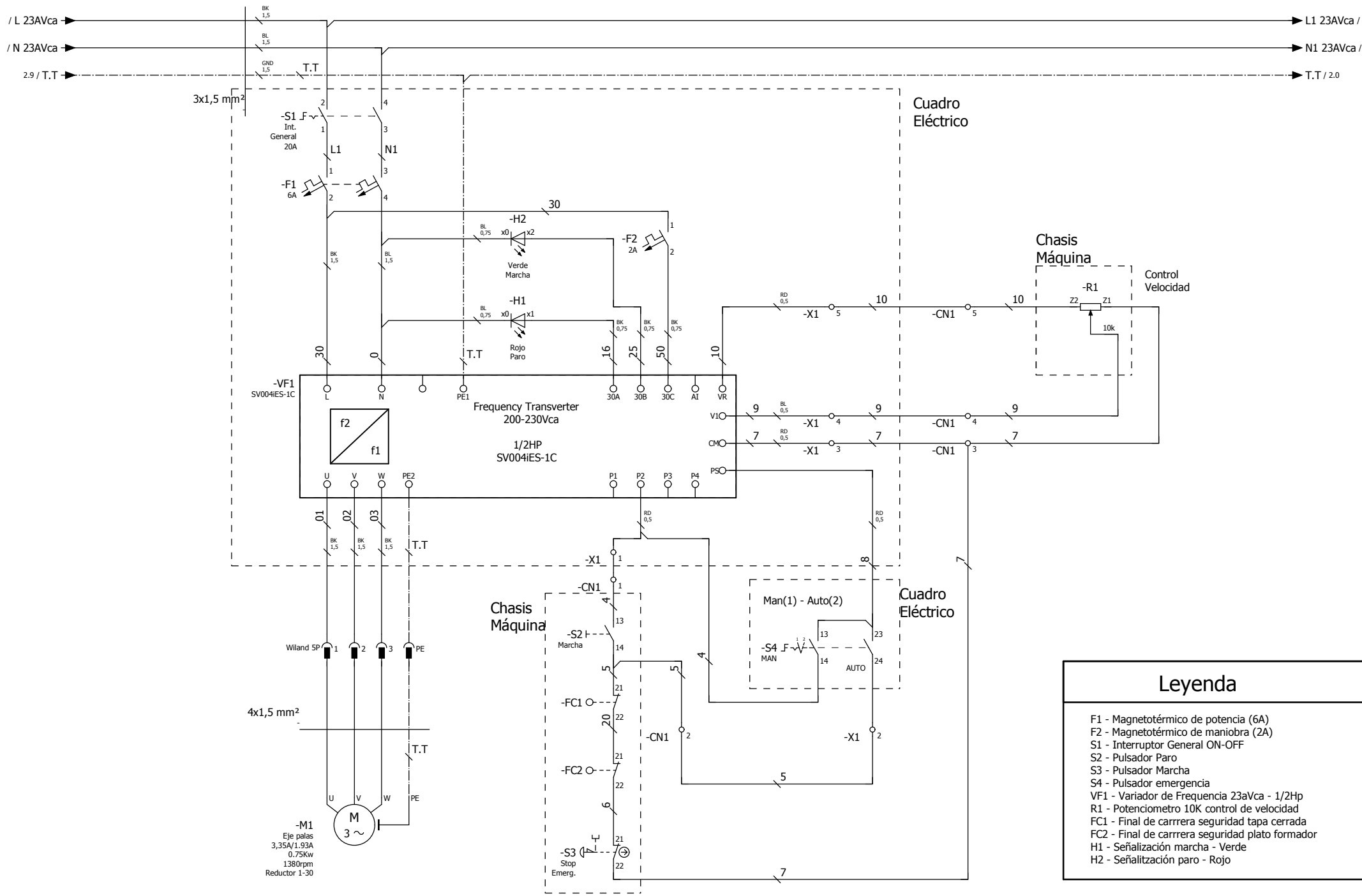
PORTADA

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Hoja

1



| Leyenda |   |
|---------|---|
| F1      | - Magnetotérmico de potencia (6A)           |
| F2      | - Magnetotérmico de maniobra (2A)           |
| S1      | - Interruptor General ON-OFF                |
| S2      | - Pulsador Paro                             |
| S3      | - Pulsador Marcha                           |
| S4      | - Pulsador emergencia                       |
| VF1     | - Variador de Frecuencia 23aVca - 1/2Hp     |
| R1      | - Potenciómetro 10K control de velocidad    |
| FC1     | - Final de carrera seguridad tapa cerrada   |
| FC2     | - Final de carrera seguridad plato formador |
| H1      | - Señalización marcha - Verde               |
| H2      | - Señalización paro - Rojo                  |



| Cambio | Fecha | Nombre | Original |
|--------|-------|--------|----------|
|        |       |        |          |

|          |                  |
|----------|------------------|
| Fecha    | 05/02/2018       |
| Resp.    | DEP. ELECTRICICO |
| Probado  |                  |
| Original |                  |

**SUPER VER 01**

Proyecto nº :

POTENCIA - MANIOBRA