COMAS


WE'RE PROUD TO PRODUCE IN ITALY
a quality valued all over the world

# WHO WE ARE

**Comas** was established in San Casciano Val di Pesa, near Florence, in 1979. The company immediately specialised in manufacturing fluid filling machines for the pharmaceutical and cosmetic industries. Over time, it expanded to other markets processing containers for diagnosis and products for the nutraceutical industry.
Since then, **Comas** have worked on an ever-growing number of technologies to meet their customers' requirements and needs and, to successfully face the challenges encountered.

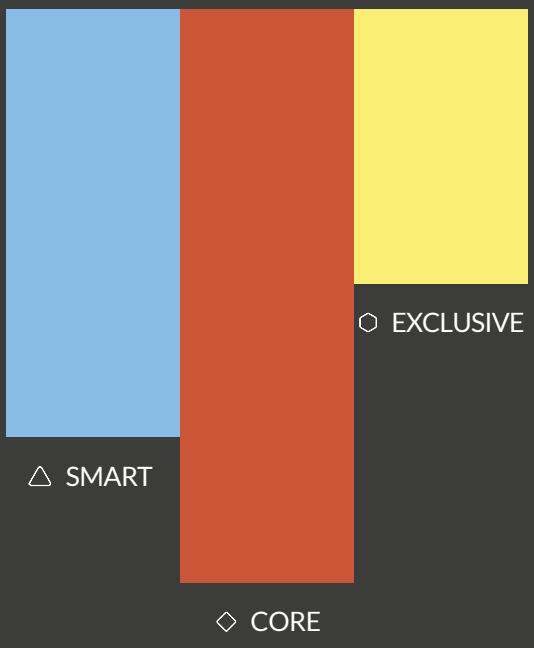
The company is in constant evolution in terms of technology and compliance with regulations, and it focuses on developing solutions tailor-made to customers' needs and not the other way around, where customers have to adapt their requirements to a given standard solution. This is the reason why every single **Comas** machine as well as their mechanical and electronic components is developed by our design department.

After 40 years in the business, **Comas** s.r.l. is proud of its over 1200 machines installed all around the world, covering a spectrum of flexible as well as reliable applications.
**Comas** further expanded in 2016, when a new production plant was opened to better adjust to the new market requirements and to streamline the production process.


# TYPES

## OF MACHINES

PER PRODUCT CATEGORY AND PER PRODUCTION CAPACITY



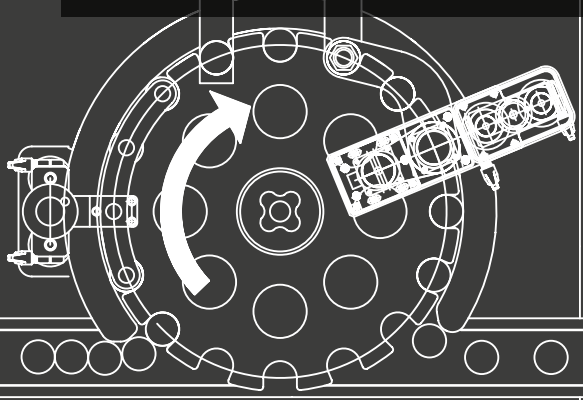
# PHARMACEUTICAL

# FD120

CATEGORY & CAPACITY
**PHARMACEUTICAL**
**◇ CORE**

Also for
**COSMETICS**

| DATA | SINGLE INDEX | DOUBLE INDEX |
|---|---|---|
| BOTTLE INDEX | ALTERNATING, ON STARWHEEL | ALTERNATING, ON STARWHEEL |
| FEEDING SYSTEM | FULLY AUTOMATIC | FULLY AUTOMATIC |
| FILLING SYSTEM | | |
| FILLING PUMPS | STANDARD | STANDARD |
| PERISTALTIC PUMPS | ALTERNATIVE | ALTERNATIVE |
| POWDER DOSING HEAD | ALTERNATIVE | ALTERNATIVE |
| FILLING RANGE (ML) * | 0 – 500 | 0 – 200 |
| MAX MECHANICAL SPEED (BPH) | 4.000 | 6.000 |
| MAX BOTTLE DIAM. (MM) | 80 | 40 |
| CAN WORK IN STERILE ROOM | OPTIONAL | OPTIONAL |
| L.A.F. EQUIPPED | OPTIONAL | OPTIONAL |
| CIP/SIP EQUIPPED | OPTIONAL | OPTIONAL |
| ELECTRONIC FILLING ADJUSTMENT | YES | YES |
| AUTOMATIC REJECT | YES | YES |
| NO BOTTLE – NO FILL | OPTIONAL | OPTIONAL |



*Other capacities available on request

## The FD120 model is a versatile, single-unit machine, designed to fill and close most pharmaceutical containers.

Its special design a traditional single-unit ensures ideal flexibility and ease of use for both operators and the customer's maintenance technician.
At the same time, the machine has been designed to meet the standards in force in the pharmaceutical industry and to work in sterile rooms for processing injectable products, plus the chance to be equipped with a LAF system. The machine has been built using FDA-approved materials such as stainless steel and anodised aluminium.
If the machine needs to be configured to work in sterile rooms, AISI 316L stainless steel is used, paying utmost care to finishing, according to GMP regulations.
The FD120 comes in two versions- single index and double index. The double-index model processes two bottles per cycle so that a greater output is guaranteed.
This fully-automatic machine can be equipped with systems to work with stoppers, caps and cover-caps simultaneously. The operator can adjust most of the machine functions from the control panel.

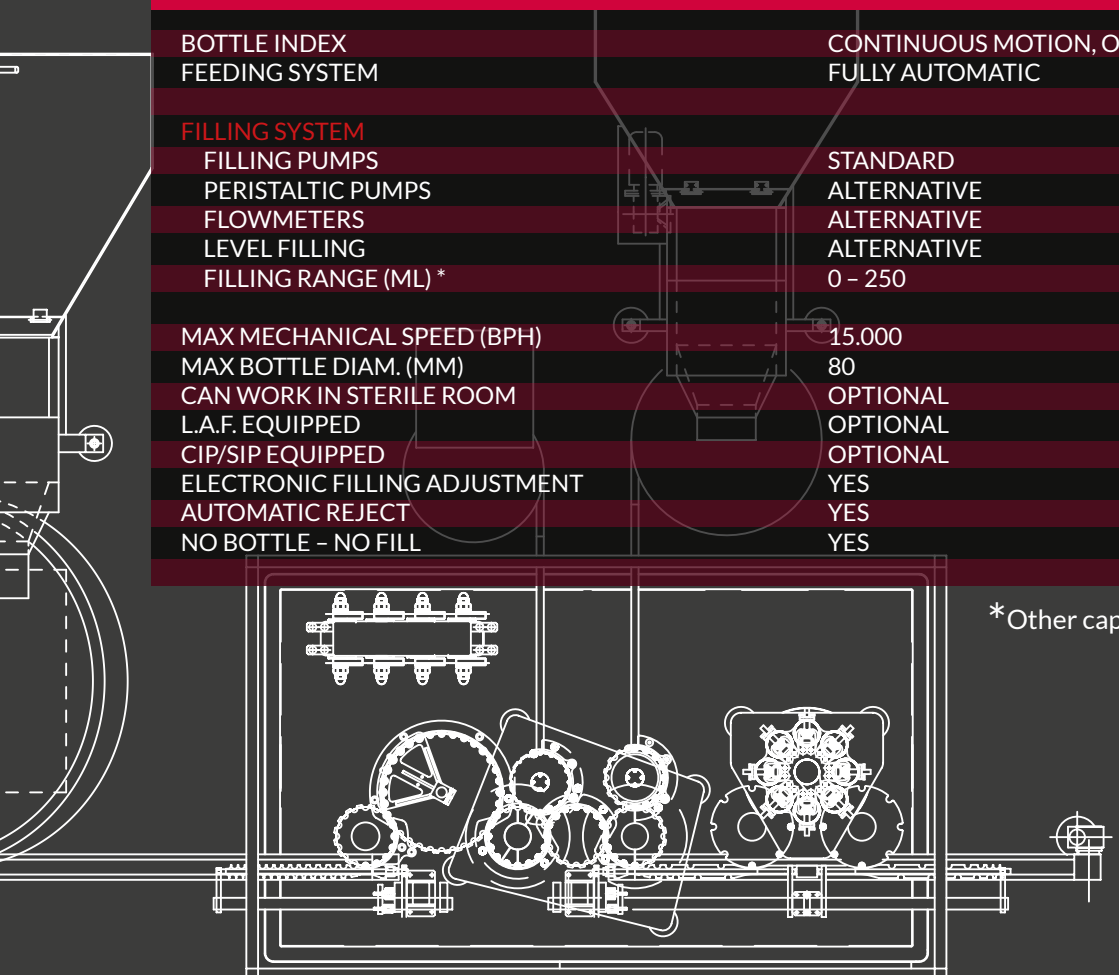
# RFC8

CATEGORY & CAPACITY
**PHARMACEUTICAL**
**◇ CORE**

## DATA

| | |
|---|---|
| BOTTLE INDEX | CONTINUOUS MOTION, ON STARWHEELS |
| FEEDING SYSTEM | FULLY AUTOMATIC |
| | |
| FILLING SYSTEM | |
| FILLING PUMPS | STANDARD |
| PERISTALTIC PUMPS | ALTERNATIVE |
| FLOWMETERS | ALTERNATIVE |
| LEVEL FILLING | ALTERNATIVE |
| FILLING RANGE (ML) * | 0 – 250 |
| | |
| MAX MECHANICAL SPEED (BPH) | 15.000 |
| MAX BOTTLE DIAM. (MM) | 80 |
| CAN WORK IN STERILE ROOM | OPTIONAL |
| L.A.F. EQUIPPED | OPTIONAL |
| CIP/SIP EQUIPPED | OPTIONAL |
| ELECTRONIC FILLING ADJUSTMENT | YES |
| AUTOMATIC REJECT | YES |
| NO BOTTLE – NO FILL | YES |

*Other capacities available on request



## The RFC8 model is a continuous-motion filling and capping machine that can reach high production speeds.

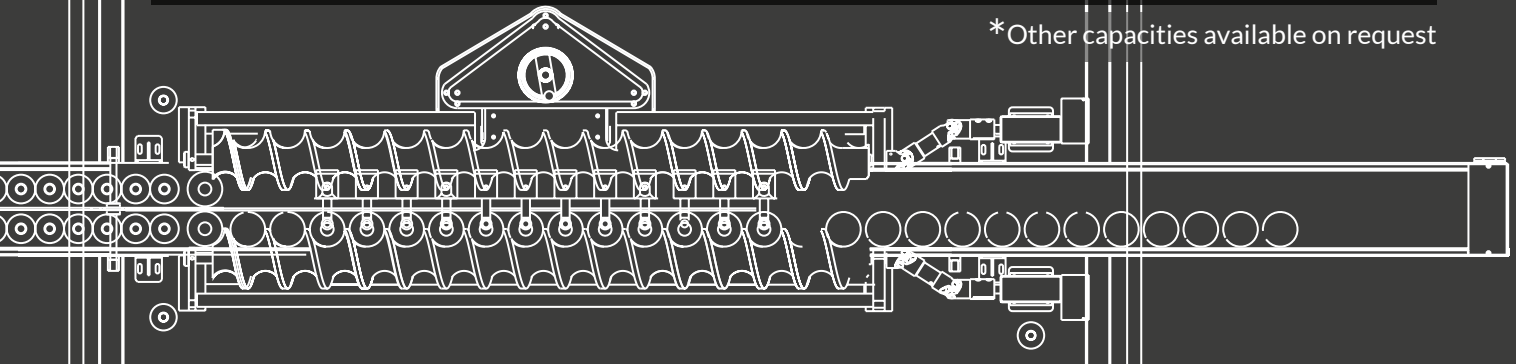
It has been designed to meet the standards in force in the pharmaceutical industry and to work in sterile rooms for processing injectable products, plus the chance to be equipped with a LAF system.
The machine is fully automatic. Containers are filled by means of a tracking sector to ensure faster speeds and, at the same time, enhanced dosing precision.
Containers are capped by means of multiple capping heads positioned on devices that turn at the same speed bottles do. The machine can work with stoppers, caps and cover-caps simultaneously.
The operator can adjust most of the machine functions from the control panel.
The machine has been built using FDA-approved materials such as stainless steel and anodised aluminium.
If the machine needs to be configured to work in sterile rooms, AISI 316L stainless steel is used, paying utmost care to finishing, according to GMP regulations.

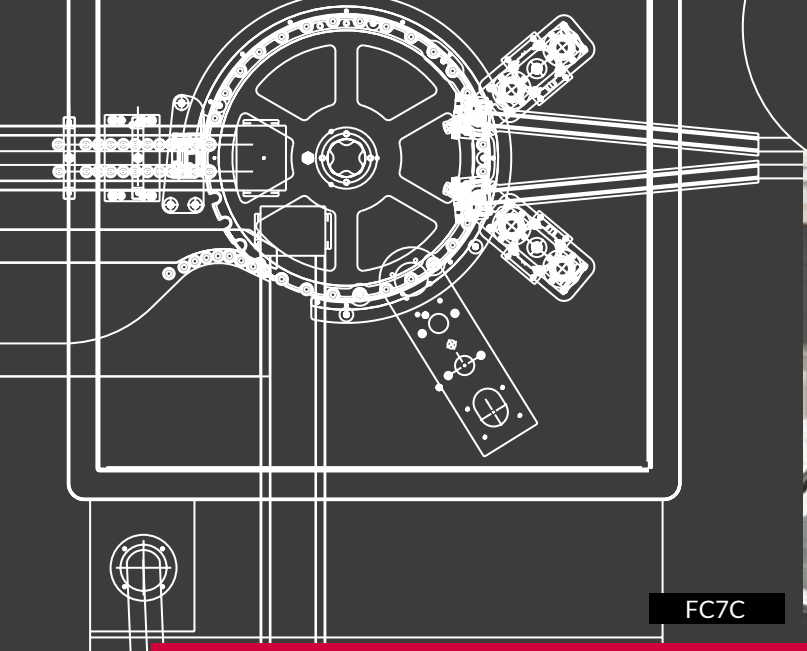
# RL SERIES

CATEGORY & CAPACITY
**PHARMACEUTICAL**
◇ CORE △ SMART

| DATA | SINGLE AUGER | DOUBLE AUGER |
|---|---|---|
| BOTTLE INDEX | AUGER FILLING | AUGER FILLING |
| FEEDING SYSTEM | FULLY AUTOMATIC | FULLY AUTOMATIC |
| FILLING SYSTEM | | |
| FILLING PUMPS | STANDARD | STANDARD |
| PERISTALTIC PUMPS | ALTERNATIVE | ALTERNATIVE |
| FLOWMETERS | STANDARD | STANDARD |
| LEVEL FILLING | ALTERNATIVE | ALTERNATIVE |
| WEIGHT FILLING | ALTERNATIVE | ALTERNATIVE |
| FILLING RANGE (ML)* | 30 – 500 | 30 – 500 |
| MAX MECHANICAL SPEED (BPH) | 6.000 | 12.000 |
| MAX BOTTLE DIAM. (MM) | 100 | 100 |
| CAN WORK IN STERILE ROOM | OPTIONAL | OPTIONAL |
| L.A.F. EQUIPPED | OPTIONAL | OPTIONAL |
| CIP/SIP EQUIPPED | OPTIONAL | OPTIONAL |
| ELECTRONIC FILLING ADJUSTMENT | YES | YES |
| AUTOMATIC REJECT | N/A | N/A |
| NO BOTTLE – NO FILL | OPTIONAL | YES* |

*Other capacities available on request



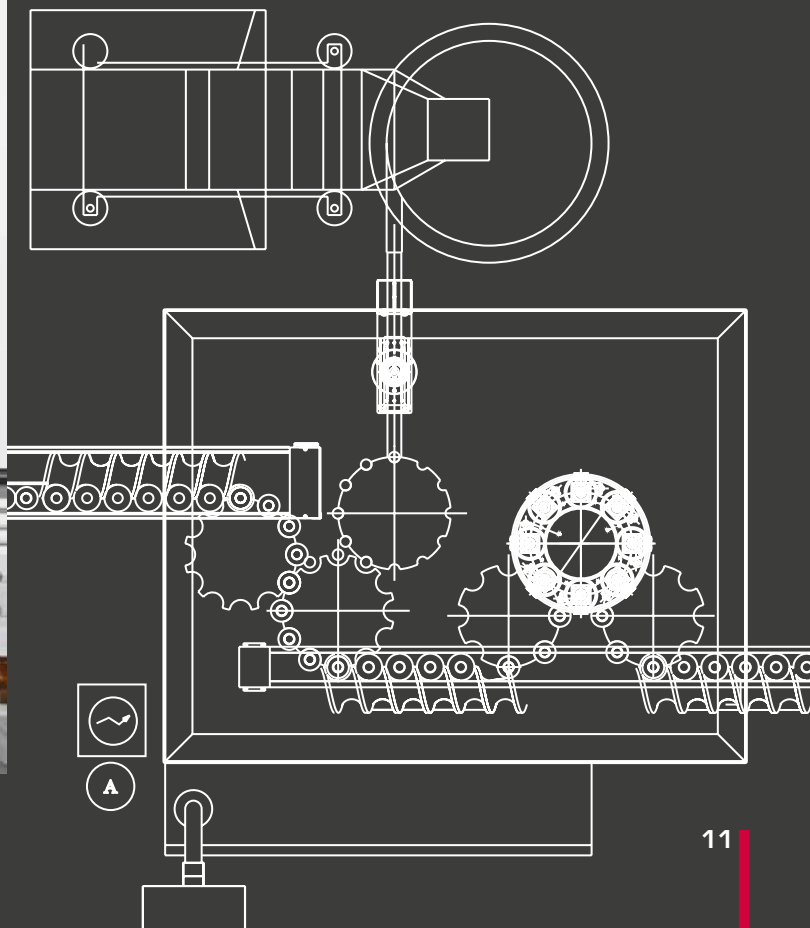


FC7C

## The RL Series are in-line auger filling machines that use mass flow meters or other types of dosers.

The machine is fully automatic and it comes in two different versions: With single or double auger. The double-auger version minimizes bottle loading/unloading times as it conveys the filling sector from one auger to the other to move the bottles to the auger in which they are not filled.
Depending on the required speed, the machines of the RL series can be connected to single-unit alternating-motion (FC7c) or continuous-motion (RFC8c) capping machines.
So configured, the line can work in sterile rooms to process injectable products plus the chance to be equipped with a LAF system along the entire line until bottles are capped.
The machine has been built using FDA-approved materials such as stainless steel and anodised aluminium. If the machine needs to be configured to work in sterile rooms, AISI 316L stainless steel is used, paying utmost care to finishing, according to GMP regulations.

RFC8C



# RS1

CATEGORY & CAPACITY
**PHARMACEUTICAL**
**△ SMART**

## The RS1 model has been designed to meet the requirements of customers who need a relatively low production speed but, at the same time, quality and a sterile filling.

The machine has been designed to meet the standards in force in the pharmaceutical industry and to work in sterile rooms for processing injectable products, plus the chance to be equipped with a LAF system.
Bottles are moved in line through a special double walking beam conveying system patented by Comas to guarantee more effective stability and precision and to minimise rejects.
The machine is available in two versions and both are fully automatic One to move and close plastic bottles (from a feeder, with stopper and screw cap) or glass bottles (from a built-in rotating table, with rubber stopper and alluminium cap).
The machine has been designed to work in sterile rooms for processing injectable products, plus the chance to be equipped with a LAF system. AISI 316L stainless steel is used to build it, paying utmost care to finishing, according to GMP regulations.

**DATA**

| | |
|---|---|
| BOTTLE INDEX | ALTERNATING, ON WALKING BEAM |
| FEEDING SYSTEM | FULLY AUTOMATIC |
| | |
| FILLING SYSTEMS | |
| FILLING PUMPS | ALTERNATIVE |
| PERISTALTIC PUMPS | STANDARD |
| TIME/ PRESSURE | ALTERNATIVE |
| POWDER DOSING HEAD | ALTERNATIVE |
| FILLING RANGE (ML) * | 0 – 35 |
| | |
| MAX MECHANICAL SPEED (BPH) | 1.500 |
| MAX BOTTLE DIAM. (MM) | 35 |
| CAN WORK IN STERILE ROOM | YES |
| L.A.F. EQUIPPED | OPTIONAL |
| CIP/SIP EQUIPPED | OPTIONAL |
| ELECTRONIC FILLING ADJUSTMENT | YES |
| AUTOMATIC REJECT | YES |
| NO BOTTLE – NO FILL | YES |

*Other capacities available on request

# RS2

CATEGORY & CAPACITY
**PHARMACEUTICAL**
**◇ CORE**

## The RS2 model was the answer to the need of having a compact machine that would be flexible as well.

Containers are filled in line to increase machine output and the closing stages occur on a small starwheel. Thus, downtimes and 'bottle necks' caused by filling special products are minimised.
The machine has been designed to work in sterile rooms for processing injectable products, plus the chance to be equipped with a LAF system. AISI 316L stainless steel is used to build it, paying utmost care to finishing, according to GMP regulations.

| DATA | |
|---|---|
| BOTTLE INDEX | ALTERNATING, IN LINE FILLING; CAPPING ON STARWHEEL |
| FEEDING SYSTEM | FULLY AUTOMATIC |
| | |
| FILLING SYSTEM | |
| FILLING PUMPS | ALTERNATIVE |
| PERISTALTIC PUMPS | STANDARD |
| FLOWMETERS | ALTERNATIVE |
| TIME/ PRESSURE | ALTERNATIVE |
| FILLING RANGE (ML) * | 0 – 100 |
| | |
| MAX MECHANICAL SPEED (BPH) | 4.000 |
| MAX BOTTLE DIAM. (MM) | 45 |
| CAN WORK IN STERILE ROOM | YES |
| L.A.F. EQUIPPED | OPTIONAL |
| CIP/SIP EQUIPPED | OPTIONAL |
| ELECTRONIC FILLING ADJUSTMENT | YES |
| AUTOMATIC REJECT | YES |
| NO BOTTLE – NO FILL | YES |

*Other capacities available on request

# FCP

CATEGORY & CAPACITY
**PHARMACEUTICAL**
**⬡ EXCLUSIVE**

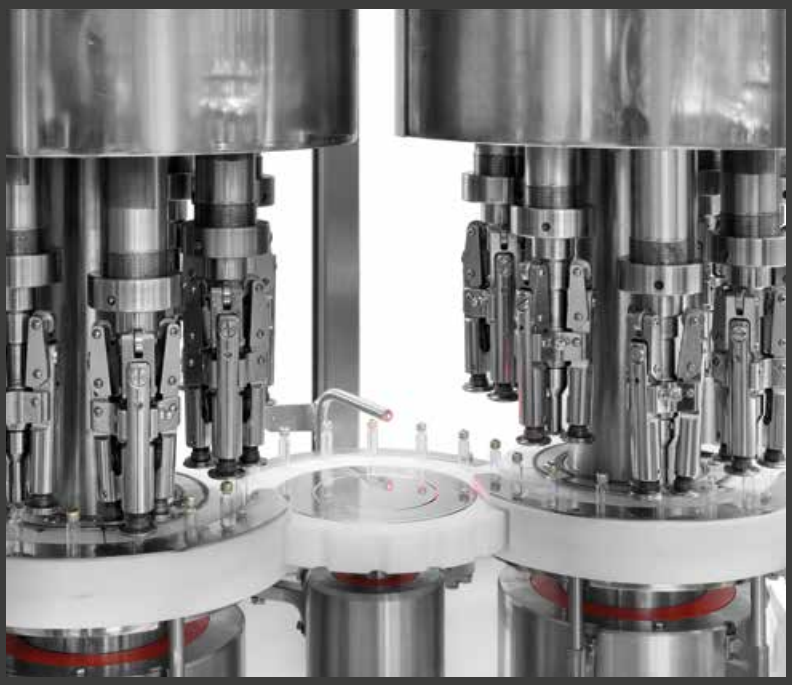
## DATA

| | |
|---|---|
| BOTTLE INDEX | CONTINUOUS MOTION, ON STARWHEELS |
| FEEDING SYSTEM | FULLY AUTOMATIC |
| | |
| FILLING SYSTEM | |
| FILLING PUMPS | STANDARD |
| FILLING RANGE (ML) * | 0 – 10 |
| | |
| MAX MECHANICAL SPEED (BPH) | 15.000 |
| MAX BOTTLE DIAM. (MM) | 10 |
| CAN WORK IN STERILE ROOM | YES |
| L.A.F. EQUIPPED | STANDARD |
| CIP/SIP EQUIPPED | STANDARD |
| ELECTRONIC FILLING ADJUSTMENT | YES |
| AUTOMATIC REJECT | YES |
| NO BOTTLE – NO FILL | YES |

*Other capacities available on request

## The FCP model is a continuous-motion filling and capping machine for dental carpules that can reach high production speeds.

It has been designed to process injectable products in sterile rooms, plus the chance to be equipped with a LAF system.
The machine is fully automatic. Containers are filled by means of a tracking sector to ensure faster speeds and, at the same time, enhanced dosing precision.
Containers are capped by means of multiple capping heads positioned on devices that turn at the same speed bottles do.
The operator can adjust most of the machine functions from the control panel.
The machine has been built to work in sterile rooms, so AISI 316L stainless steel is used, paying utmost care to finishing, according to GMP regulations.



# MNDA1

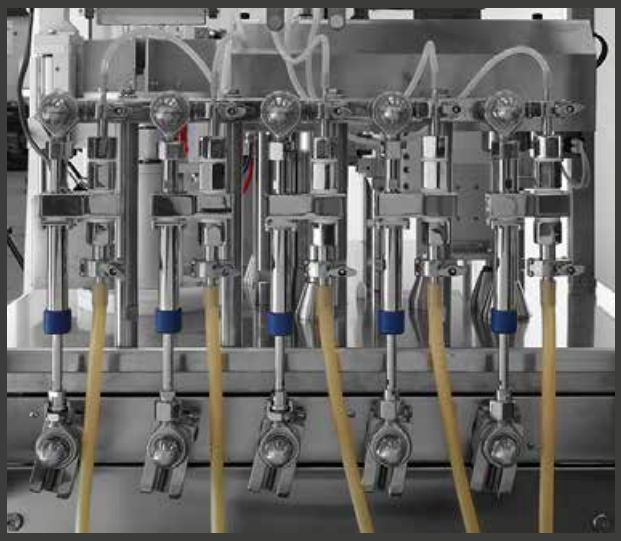
CATEGORY & CAPACITY
**PHARMACEUTICAL + COSMETIC**
**⬡ CORE**

| DATA | |
|---|---|
| BOTTLE INDEX | ALTERNATING, ON WALKING BEAM |
| FEEDING SYSTEM | FULLY AUTOMATIC |
| | |
| FILLING SYSTEM | |
| FILLING PUMPS | STANDARD |
| PERISTALTIC PUMPS | STANDARD |
| TIME/PRESSURE | STANDARD |
| FILLING RANGE (ml)* | 0 – 10 |
| | |
| MAX MECHANICAL SPEED | 1.500 STRIPS/HOUR |
| CAN WORK IN STERILE ROOM | YES |
| L.A.F. EQUIPPED | YES |
| CIP/SIP EQUIPPED | YES |
| ELECTRONIC FILLING ADJUSTMENT | YES |
| NO BOTTLE – NO FILL | OPTIONAL |

*Other capacities available on request

## MNDA1 is an automatic machine for filling and sealing of single-dose in strip vials. Featured by a very reduced dimension, thanks to an innovative “U” arrangement,

The main innovation concern the sealing of the bottle immediately after the fillingphase, and the added heating system. Automatic loading of single-dose stripes. Filling system by nozzle, peristaltic pump or time/pressure. Heat system by infrared lamps. Sealing with customized clamp.



# SA1200

CATEGORY & CAPACITY
**PHARMACEUTICAL**
**◇ CORE**

## DATA

| | |
|---|---|
| BOTTLE INDEX | CONTINUOUS MOTION |
| FEEDING SYSTEM | FULLY AUTOMATIC |
| MAX MECHANICAL SPEED (BPH) | 10.000 |
| MAX BOTTLE DIAM. (mm) | 90 |
| DEIONIZED BLOWING NOZZLE | OPTIONAL |
| BLOW AND SUCK DEVICE | OPTIONAL |

## The SA1200 model is a continuous-motion blowing machine.

It includes a vertical wheel featuring seats where bottles are accommodated so that they are overturned by 180° during cleaning.
Bottles can be fed by means of the infeed belt or the rotating table tray included in the machinery.
The SA1200 uses a filtered compressed-air circuit to clean bottles internally, a filter housing made of AISI 316 stainless steel and a cartridge filter (0.22 µ).

# FL101

CATEGORY & CAPACITY
**PHARMACEUTICAL**
**⬡ EXCLUSIVE**

## The FL101 model is a continuous-motion machine to process bags or other unstable containers that need to be handled by the neck.

The path of the machine is a longitudinal oval base on which a large number of devices for different processes can be added, such as cappers, hot sealers, etc.
Containers are filled by means of a tracking sector to ensure faster speeds and, at the same time, enhanced dosing precision.


## DATA

| | |
|---|---|
| BOTTLE INDEX | CONTINUOUS MOTION, PUCKS ATTACHED TO A VERTICAL BELT |
| FEEDING SYSTEM | FULLY AUTOMATIC |
| | |
| FILLING SYSTEM | |
| FLOWMETERS | STANDARD |
| FILLING RANGE (ML) * | 50 – 1.000 |
| | |
| MAX MECHANICAL SPEED (BPH) | 5.000 |
| MAX BOTTLE DIAM. (MM) | N/A |
| CAN WORK IN STERILE ROOM | OPTIONAL |
| L.A.F. EQUIPPED | OPTIONAL |
| CIP/SIP EQUIPPED | OPTIONAL |
| ELECTRONIC FILLING ADJUSTMENT | YES |
| AUTOMATIC REJECT | YES |
| NO BOTTLE – NO FILL | YES |

*Other capacities available on request

OUR JOB IS NOT ONLY A JOB

**IT'S A PASSION**

# COSMETIC

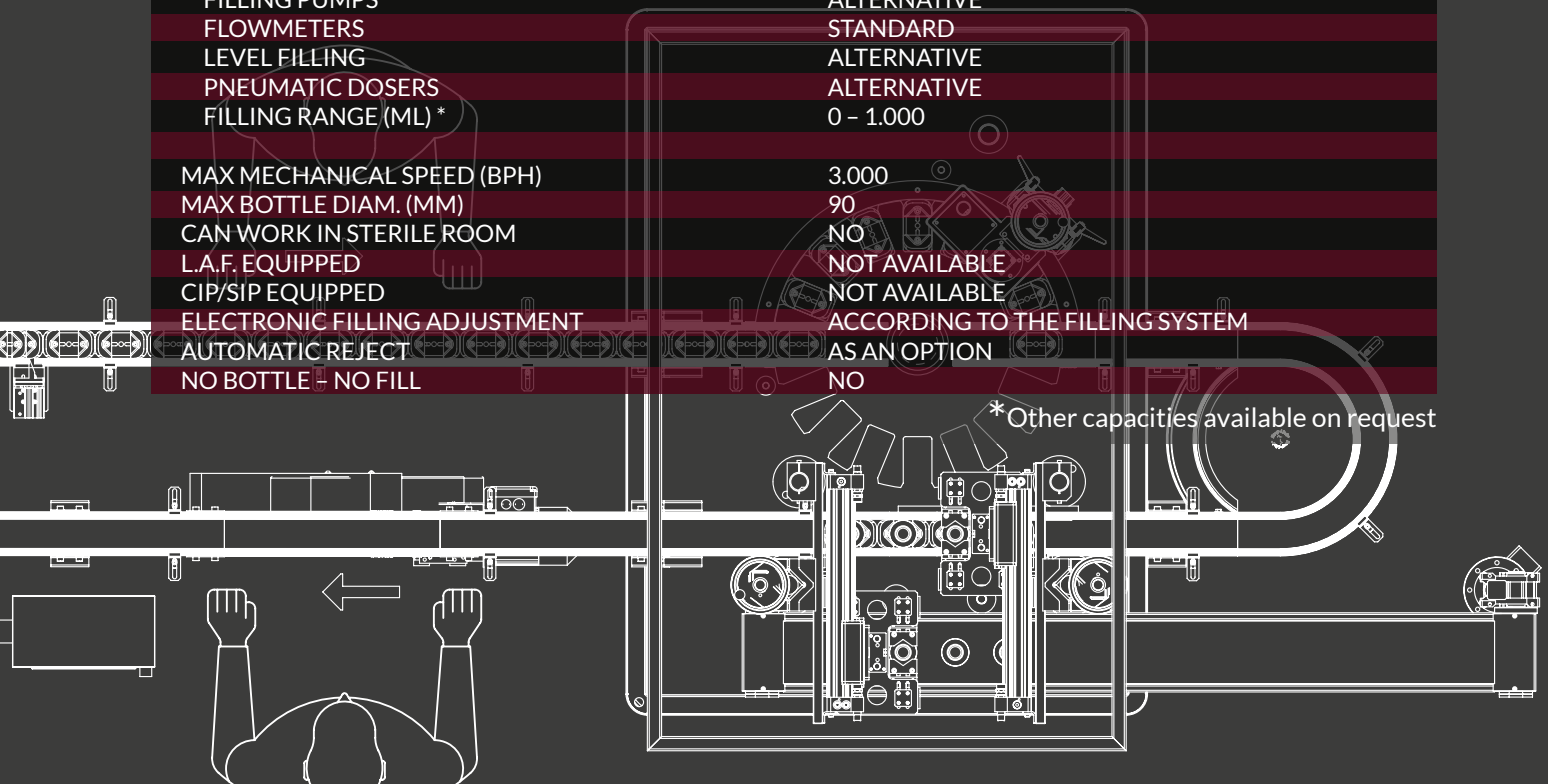
# RMC

CATEGORY & CAPACITY
**COSMETIC**
**△ SMART**

## DATA

| | |
|---|---|
| BOTTLE INDEX | IN LINE FILLING, CAPPING ON STARWHEEL, BOTH DIRECTLY ON CONVEYOR OR ON PUCKS |
| FEEDING SYSTEM | SEMI-AUTOMATIC BY DEFAULT. CAN WORK IN FULLY AUTOMATIC MODE. |
| FILLING SYSTEM | |
| FILLING PUMPS | ALTERNATIVE |
| FLOWMETERS | STANDARD |
| LEVEL FILLING | ALTERNATIVE |
| PNEUMATIC DOSERS | ALTERNATIVE |
| FILLING RANGE (ML) * | 0 – 1.000 |
| MAX MECHANICAL SPEED (BPH) | 3.000 |
| MAX BOTTLE DIAM. (MM) | 90 |
| CAN WORK IN STERILE ROOM | NO |
| L.A.F. EQUIPPED | NOT AVAILABLE |
| CIP/SIP EQUIPPED | NOT AVAILABLE |
| ELECTRONIC FILLING ADJUSTMENT | ACCORDING TO THE FILLING SYSTEM |
| AUTOMATIC REJECT | AS AN OPTION |
| NO BOTTLE – NO FILL | NO |

*Other capacities available on request



## The RMC model was created as an answer to manufacturers that need a highly-flexible machine, like those who must produce several small-quantity batches every day.

The RMC, which includes a filling unit and a capping unit independent one from the other, can actually work by means of pucks or leave bottles free on the belt. Different filling and capping systems can be fitted.
The time required to change format is extremely short and the operations, in most of the cases, can be carried out by non-specialised personnel too.

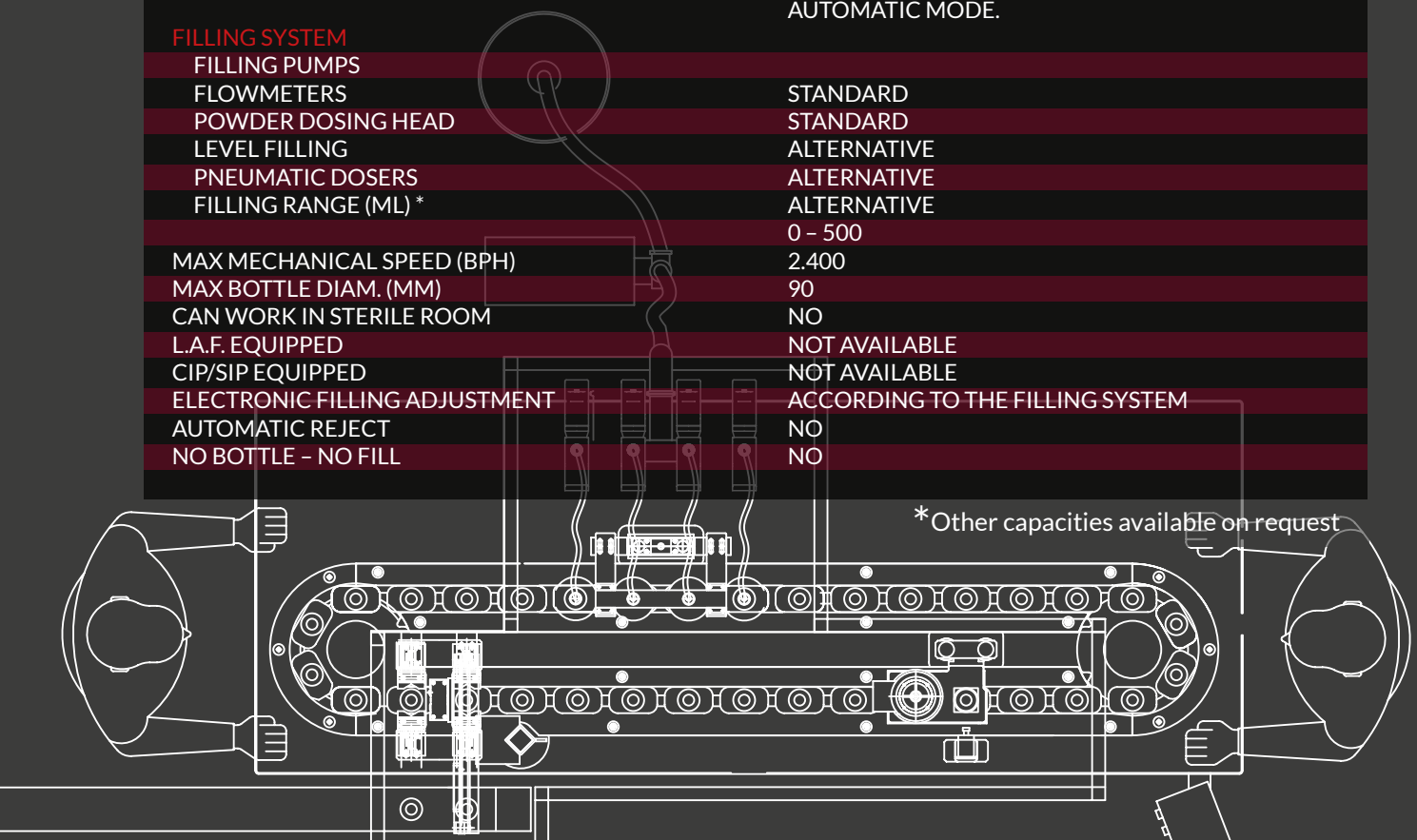
# RT SERIES

CATEGORY & CAPACITY
**COSMETIC**
**◇ CORE**

## DATA

| | |
|---|---|
| BOTTLE INDEX | ALTERNATING, PUCKS ATTACHED TO A BELT |
| FEEDING SYSTEM | SEMI-AUTOMATIC BY DEFAULT. CAN WORK IN FULLY AUTOMATIC MODE. |
| FILLING SYSTEM | |
| FILLING PUMPS | |
| FLOWMETERS | STANDARD |
| POWDER DOSING HEAD | STANDARD |
| LEVEL FILLING | ALTERNATIVE |
| PNEUMATIC DOSERS | ALTERNATIVE |
| FILLING RANGE (ML) * | ALTERNATIVE |
| | 0 – 500 |
| MAX MECHANICAL SPEED (BPH) | 2.400 |
| MAX BOTTLE DIAM. (MM) | 90 |
| CAN WORK IN STERILE ROOM | NO |
| L.A.F. EQUIPPED | NOT AVAILABLE |
| CIP/SIP EQUIPPED | NOT AVAILABLE |
| ELECTRONIC FILLING ADJUSTMENT | ACCORDING TO THE FILLING SYSTEM |
| AUTOMATIC REJECT | NO |
| NO BOTTLE – NO FILL | NO |

*Other capacities available on request



## The machines of the RT series have been created as an answer to manufacturers that need a highly flexible machine and to process unstable bottles or bottles with shapes that are difficult to process on a conveyor belt.

The RTM model has a filling system using mass flowmeters and an electronic control system for moving needles that gives customers the total control over the management of the volumes to be filled, their speed and power.
The RTS model has been created to process products to be dosed by means of systems such as pneumatic pistons, heated hoppers or dosages of special products, filling processes at level, vacuum sealing, etc.
The conveying system features pucks on a belt, rather than on conveyor, so that bottles are better stabilised during the filling and closing stages.
The time required to change format is extremely short and the operations, in most of the cases, can be carried out by non-specialised personnel too.


LAB TESTING

# RTS10

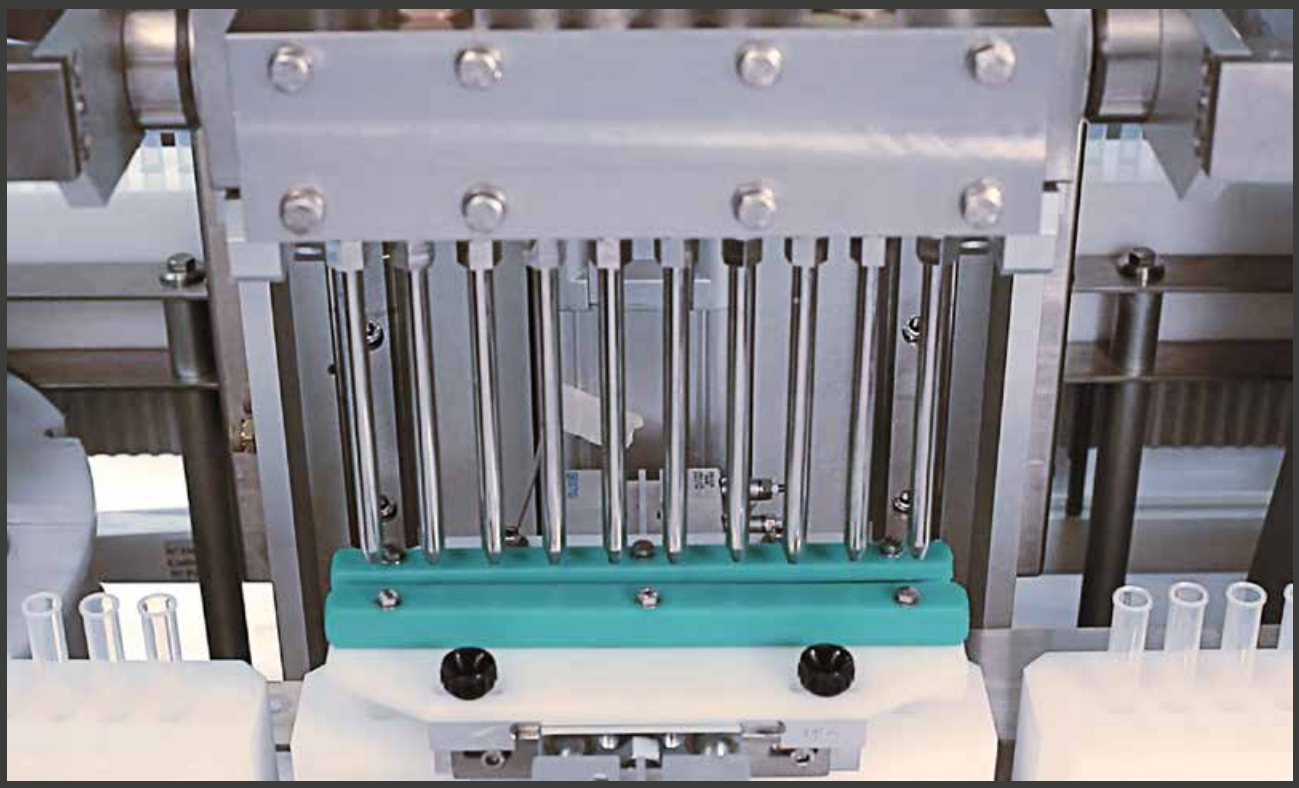
CATEGORY & CAPACITY
**COSMETIC**
**◇ CORE**

## DATA

| | |
|---|---|
| TUBE INDEX | ALTERNATING, PUCKS ATTACHED TO A BELT |
| FEEDING SYSTEM | FULLY AUTOMATIC |
| | |
| FILLING SYSTEM | |
| FILLING PUMPS | STANDARD |
| SPRAY NOZZLES TO DOSE FROM 25 µl | OPTIONAL |
| | |
| MAX MECHANICAL SPEED (BPH) | 12.000 TUBES |
| ELECTRONIC FILLING ADJUSTMENT | YES |
| AUTOMATIC REJECT | YES |
| NO BOTTLE – NO FILL | OPTIONAL |
| | |
| HOT AIR DRYING STATION | OPTIONAL |
| GRANULE STATION | OPTIONAL |
| GEL DOSING STATION | OPTIONAL |
| VACUUM CLOSING STATION | OPTIONAL |
| | |
| BLACK BOX CAMERA CONTROLS | OPTIONAL |

## The RTS10 model is a machine only for processing test tubes for diagnosis.

The machine can perform different operations inside the test tube (depending on the use required by the customer), such as, for instance, dosing small quantities (up to 20 µl) of products such as anticoagulants, gels, reagents and any other material needed.
The machine output is up to 10 test tubes per cycle and it can cause up to 90% of vacuum inside the test tube.
Test tubes are automatically ejected from the machine; optional: a blister can be included.




LESS MARKETING
MORE QUALITY

# DATA

| | FD120 | | RFC8 | RL SERIES | | RS1 | RS2 |
|---|---|---|---|---|---|---|---|
| | SINGLE INDEX | DOUBLE INDEX | | SINGLE AUGER | DOUBLE AUGER | | |
| BOTTLE INDEX | ALTERNATING, ON STARWHEEL | ALTERNATING, ON STARWHEEL | CONTINUOUS MOTION, ON STARWHEELS | AUGER FILLING | AUGER FILLING | ALTERNATING, ON WALKING BEAM | ALTERNATING, IN LINE FILLING; CAPPING ON STARWHEEL |
| FEEDING SYSTEM | FULLY AUTOMATIC | FULLY AUTOMATIC | FULLY AUTOMATIC | FULLY AUTOMATIC | FULLY AUTOMATIC | FULLY AUTOMATIC | FULLY AUTOMATIC |
| FILLING SYSTEMS | | | | | | | |
| FILLING PUMPS | STANDARD | STANDARD | STANDARD | STANDARD | STANDARD | ALTERNATIVE | ALTERNATIVE |
| PERISTALTIC PUMPS | ALTERNATIVE | ALTERNATIVE | ALTERNATIVE | ALTERNATIVE | ALTERNATIVE | STANDARD | STANDARD |
| FLOWMETERS | | | ALTERNATIVE | STANDARD | STANDARD | | ALTERNATIVE |
| TIME/ PRESSURE | | | | | | ALTERNATIVE | ALTERNATIVE |
| POWDER DOSING HEAD | ALTERNATIVE | ALTERNATIVE | | | | ALTERNATIVE | |
| LEVEL FILLING | | | ALTERNATIVE | ALTERNATIVE | ALTERNATIVE | | |
| WEIGHT FILLING | | | | ALTERNATIVE | ALTERNATIVE | | |
| PNEUMATIC DOSERS | | | | | | | |
| FILLING RANGE (ML) * | 0 – 500 | 0 – 200 | 0 – 250 | 30 – 500 | 30 – 500 | 0 – 35 | 0 – 100 |
| MAX MECHANICAL SPEED (BPH) | 4.000 | 6.000 | 15.000 | 6.000 | 12.000 | 1.500 | 4.000 |
| MAX BOTTLE DIAM. (MM) | 80 | 40 | 80 | 100 | 100 | 35 | 45 |
| CAN WORK IN STERILE ROOM | OPTIONAL | OPTIONAL | OPTIONAL | OPTIONAL | OPTIONAL | YES | YES |
| L.A.F. EQUIPPED | OPTIONAL | OPTIONAL | OPTIONAL | OPTIONAL | OPTIONAL | OPTIONAL | OPTIONAL |
| CIP/SIP EQUIPPED | OPTIONAL | OPTIONAL | OPTIONAL | OPTIONAL | OPTIONAL | OPTIONAL | OPTIONAL |
| ELECTRONIC FILLING ADJUSTMENT | YES | YES | YES | YES | YES | YES | YES |
| AUTOMATIC REJECT | YES | YES | YES | N/A | N/A | YES | YES |
| NO BOTTLE – NO FILL | OPTIONAL | OPTIONAL | YES | OPTIONAL (ON SOME MODEL) | YES (ON SOME MODEL) | YES | YES |

*Other capacities available on request

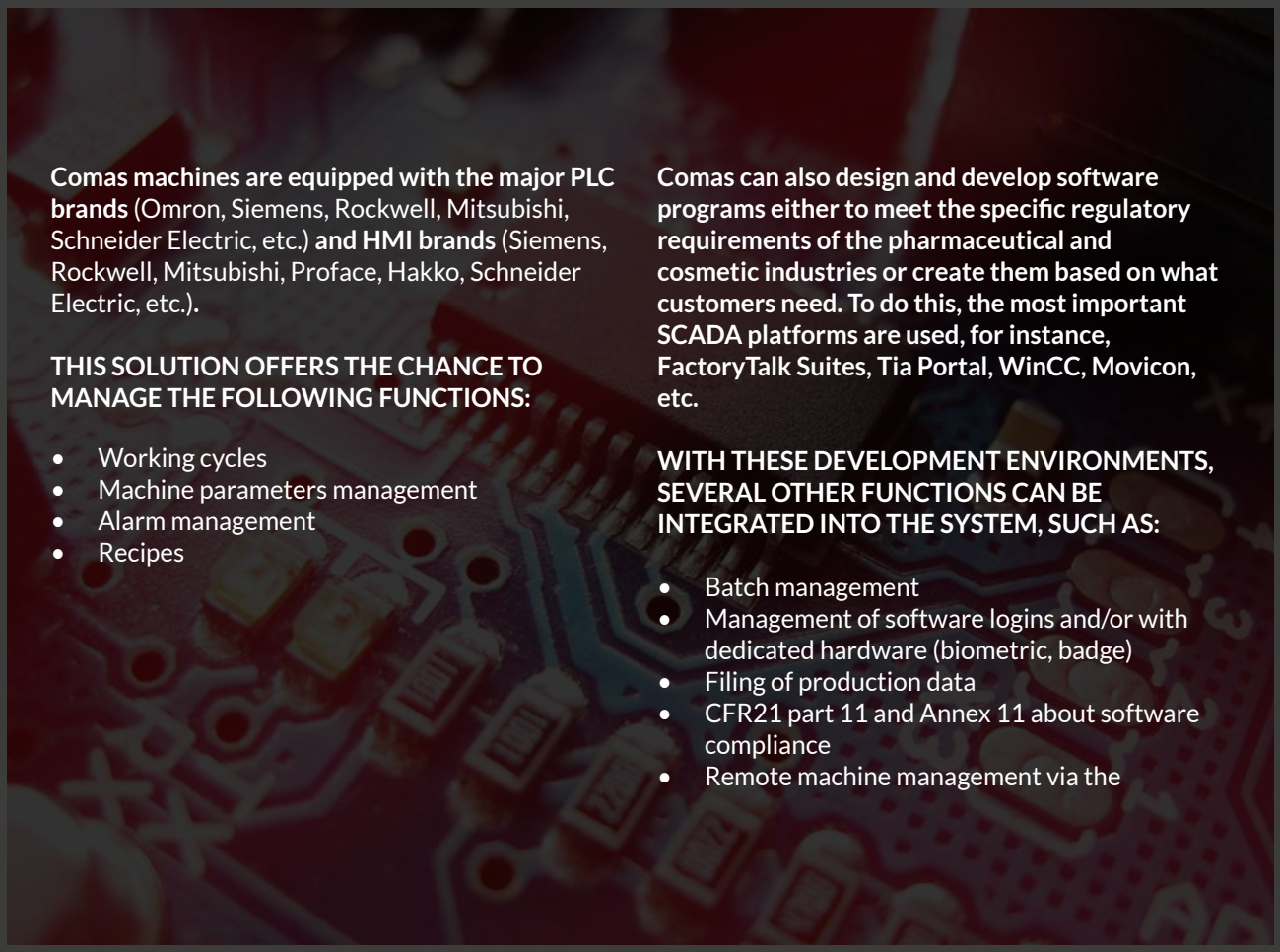
| FCP | FL101-S | RMC | RT SERIES | RFC8C |
|---|---|---|---|---|
| | | | | |
| CONTINUOUS MOTION, ON STARWHEELS | CONTINUOUS MOTION, BOTTLES HANDLED BY THE NECK | IN LINE FILLING, CAPPING ON STARWHEEL, BOTH DIRECTLY ON CONVEYOR OR ON PUCKS | ALTERNATING, PUCKS ATTACHED TO A BELT | CONTINUOUS MOTION, ON STARWHEELS |
| FULLY AUTOMATIC | FULLY AUTOMATIC | SEMI-AUTOMATIC BY DEFAULT. CAN WORK IN FULLY AUTOMATIC MODE | SEMI-AUTOMATIC BY DEFAULT. CAN WORK IN FULLY AUTOMATIC MODE | FULLY AUTOMATIC |
| | | | | |
| STANDARD | | ALTERNATIVE | STANDARD | |
| | STANDARD | STANDARD | STANDARD | |
| | | | ALTERNATIVE | |
| | | ALTERNATIVE | ALTERNATIVE | |
| | | ALTERNATIVE | ALTERNATIVE | |
| 0 – 10 | 50 – 1.000 | 0 – 1.000 | 0 – 500 | |
| | | | | |
| 15.000 | 5.000 | 3.000 | 2.400 | 15.000 |
| 10 | N/A | 90 | 90 | 80 |
| YES | OPTIONAL | NO | NO | ACCORDING TO LINE DESIGN |
| STANDARD | OPTIONAL | NO | NO | ACCORDING TO LINE DESIGN |
| STANDARD | OPTIONAL | NO | NO | NOT AVAILABLE |
| YES | YES | ACCORDING TO THE FILLING SYSTEM | ACCORDING TO THE FILLING SYSTEM | NOT AVAILABLE |
| YES | YES | OPTIONAL | NO | YES |
| YES | YES | NO | NO | NOT AVAILABLE |

# Electric Engineering and Automation

**The electrical engineering and automation department supervises each step in the process to develop every single machine from the design of the control switchboard up to the creation of dedicated management software for the machine to the customer's specifications.**

**FOR EACH OF THEIR MACHINES COMAS IS DIRECTLY IN CHARGE OF:**

- Designing hardware and making control switchboards
- Building of the system on board the machine
- Designing PLC and HMI Software to manage all the machine functions
- Compiling and writing the technical documents and manuals
- After-sales technical support service
- Remote support service



**Comas machines are equipped with the major PLC brands** (Omron, Siemens, Rockwell, Mitsubishi, Schneider Electric, etc.) **and HMI brands** (Siemens, Rockwell, Mitsubishi, Proface, Hakko, Schneider Electric, etc.).

**THIS SOLUTION OFFERS THE CHANCE TO MANAGE THE FOLLOWING FUNCTIONS:**

- Working cycles
- Machine parameters management
- Alarm management
- Recipes

**Comas can also design and develop software programs either to meet the specific regulatory requirements of the pharmaceutical and cosmetic industries or create them based on what customers need. To do this, the most important SCADA platforms are used, for instance, FactoryTalk Suites, Tia Portal, WinCC, Movicon, etc.**

**WITH THESE DEVELOPMENT ENVIRONMENTS, SEVERAL OTHER FUNCTIONS CAN BE INTEGRATED INTO THE SYSTEM, SUCH AS:**

- Batch management
- Management of software logins and/or with dedicated hardware (biometric, badge)
- Filing of production data
- CFR21 part 11 and Annex 11 about software compliance
- Remote machine management via the

# CONTACTS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COMAS

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