



FOCUS ON DETAILS

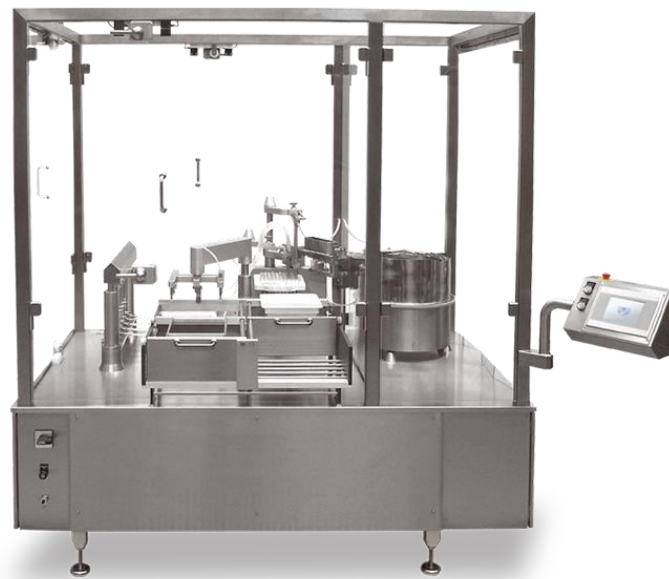


# Filling and Stoppering Machines for Nested Containers

## RSM02 & RSM05

# Filling & Stoppering Machines for Nested Containers RSM02 & RSM05

The ROTA processing machines for nested and pre-sterilised syringes is a translation and integration of ROTA's decades of experience as supplier for the pharmaceutical industry. The machine concept is based on careful analysis of customer expectations. The machine program meets the customer needs both for the start-up of syringe production as well as for mass production. Thanks to its design, the RSM series can easily be adapted to process pre-sterilised and pre-capped nested cartridges and nested vials as well.



## Standard equipment

- Product range: Syringes 0,5 - 20 ml
- Up to ten filling stations. Dosing by means of sanitary rotary piston pumps made of stainless steel 1.4404 or ceramic.
- Filling ranges: 0,2-2 ml / 1-5 ml / 2-10 ml / 6-30 ml
- Output up to: 2 filling pumps: 4.900/h  
5 filling pumps: 11.500/h
- Hand placement of tubs into the machine
- SoftPLC control
- Operator interface with colour 12" touch screen
- Password and recipe management
- Automated nester pick and place arm
- Automated Scara system for nester at filling station
- Interlocking safety cabinet
- Change parts set for one syringe size
- Change parts set for one stopper size

## Typical Options

- In-line transport of tubs through conveyor system
- Semi-automatic or automatic debagging
- Automatic tyvek lid removal
- Stopper presence control in stopper reversing plate
- Stopper presence control in syringe
- Inert gas flushing during filling and/or stoppering
- Inert gas supply deficiency control
- Filling and/or stoppering under vacuum
- Processing of nested ISO 3 ml pre-capped cartridges
- Processing of nested vials
- Laminar flow hood
- Peristaltic pump filling
- oRABS, cRABS, Isolator containment
- Batch protocol printer
- 21CFR Part 11 conformity (electronic records)
- Further options on request



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The ROTA syringe machines feature the use of the latest servo motor technology and machine components of the latest generation. Serial kinematics robotics (SCARA) and advanced control programming allow the precise execution of each individual processing steps, avoiding syringe damages and allowing precise and problem free filling and rubber stoppering.

Tubs are manually placed in a dedicated infeed magazine. A robotic arm picks the nester with empty syringes and places it automatically on the SCARA platform, where the syringes will be filled and sealed with a stopper.

During the filling process, the pick & place arm automatically moves the tub left empty from the infeed magazine to the outfeed magazine, allowing the nester to be automatically placed back in the tub once the whole syringes nester has been processed.

In order to secure the picking and placing back process of the nester, the two magazines are controlled with sensors and electrically locked when in position.

Syringes are filled with seal less rotary piston pumps (accuracy better than  $\pm 0.5\%$ ).

In order to increase the production flexibility, peristaltic pumps can optionally be fitted to the machine in addition to the piston pumps group. Peristaltic pumps as unique filling system is of course possible too on the RSM series.

The RSM series are featuring optionally an automated tub processing system, thus they can be easily connected upstream to a semi-automatic or automatic debagging system, and to a de-nesting system downstream. Together with an automated Tyvek lid and liner removal, operator contacts with syringes are avoided. The design of the RSM series is best suited for integration of open or closed RABS or isolator as well.



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## Technical data

	RSM02	RSM05
Max. output (syringes/h)	4.900	11.500
Standard processing	Syringes 0,5 - 20 ml as per ISO 11040-4	
Dimensions (machine with manual infeed)	2210 x 1450 x 2000 mm	
Power consumption	1400 W	
Power supply	400 V, 50 Hz, 3-Ph. + N (Alternates available on request)	

## Other machines available from ROTA

- Washing machines for ampoules and vials
- Hot Air Sterilisation Tunnels.
- Filling and sealing machines for ampoules
- Combination filling and sealing machines for ampoules and vials
- Vial filling and sealing machines for vials.
- Labelling machines for ampoules, vials and cartridges
- Labelling and assembling machines for syringes
- Denesting machines

What started with a simple machine for filling and closing ampoules has developed into a comprehensive range of equipment for the pharmaceutical industry

Send us your request or specifications.  
We will be pleased to meet your requirements.

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