



Manufacturing Customized Packaging Equipment Worldwide

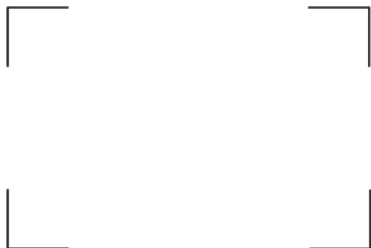
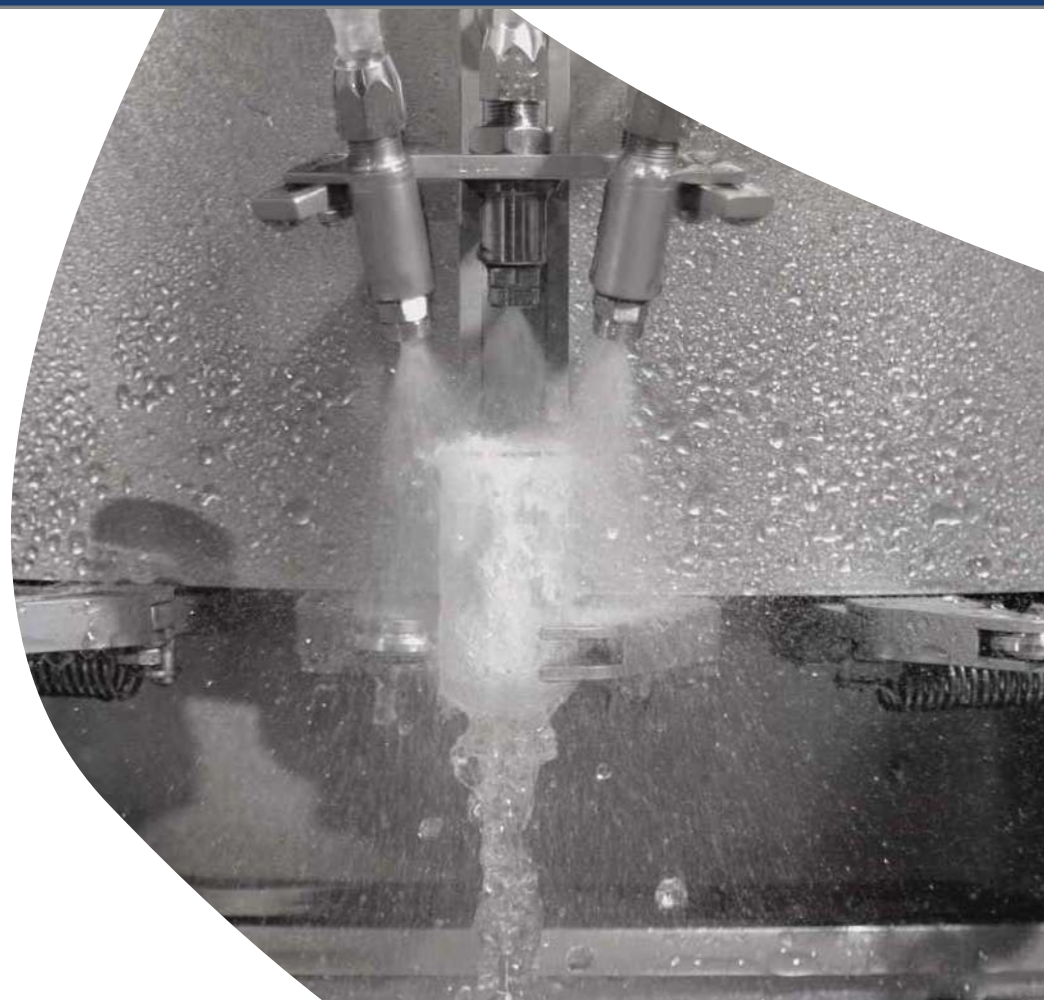


303-304 Washing Machine

303-304 machines are designed to clean Vials, Syringes, Cartridges & Ampoules

- Designed from high-grade stainless steel and pharmaceutical grade plastics
- Smooth container handling using coated grippers
- Cost-effective WFI recycling unit
- Different cleaning agents can be used
- Energy efficient cleaning needle design
- Needle movement allows for efficient cleaning of the entire inside of container
- No glass to glass contact during the cleaning cycles
- Optional siliconization with servo controlled needle movement allows customized silicone patterns

| Technical Data | Type 303 | Type 304 |
|----------------------|---------------------------|---------------------------|
| Output | up to 150 containers/ min | up to 125 containers/ min |
| Container Size Range | max. Ø 52 mm x H 140 mm | max. Ø 52 mm x H 100 mm |
| Electrical Supply | 3 x 208 V, 50/60 Hz | 3 x 208 V, 50/60 Hz |



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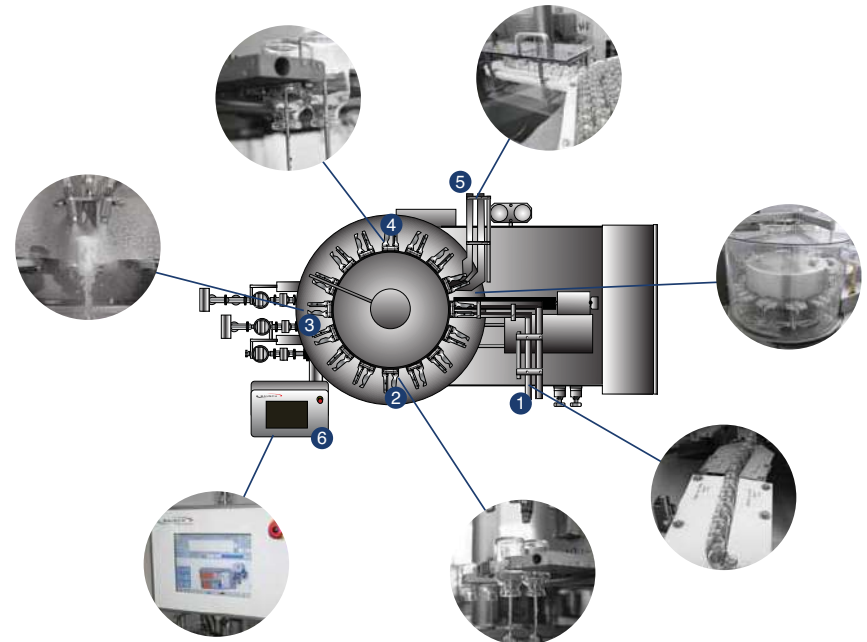
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Washing Machine for Vials, Syringes, Cartridges & Ampoules

Type 303-304 machines can be used as a stand-alone washer or integrated into a fully automatic line. The containers are washed and dried internally at several cleaning stations. External washing and drying complete the cleaning of containers achieving up to 3 log reduction. An optional recycling station, Type 705, provides cost-efficient reconditioning of used cleaning agents.



Grippers



Recycling Station



Siliconizing

- 1 Container Infeed
- 2 Internal Cleaning
- 3 External Cleaning
- 4 Station for Sterile Air
- 5 Discharge
- 6 HMI



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401-40X Depyrogenation Tunnel

Type 401-40X provide optimum hot air Depyrogenation within a short period of time

- Air convection pre-heating and sterilizing zone for energy efficiency and gentle heating of the containers
- Integrated transport belt with monitoring features
- Temperature and differential pressure indicators
- Optimum temperature distribution is achieved by multiple control sensors
- System control and monitoring of all process relevant data via PLC
- Servo controlled baffles aiding cross flow regulation

| Technical Data | Type 401 | Type 404 | Type 40X |
|---------------------|---------------------|---------------------|---------------------|
| Output | up to 75 kg/h | up to 175 kg/h | up to 610 kg/h |
| Conveyor Belt Width | 500 mm | 700 mm | 700 - 1500 mm |
| Electrical Supply | 3 x 400 V, 50/60 Hz | 3 x 400 V, 50/60 Hz | 3 x 400 V, 50/60 Hz |



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Laminar Flow Tunnel for continuous Sterilization of Vials, Syringes, Cartridges & Ampoules

Containers are fed automatically from an upstream machine or manually using trays. Subsequently they enter the single frame tube divided in to 3 major zones: a) Pre-Heating, b) Depyrogenation, c) Cooling Zone. The depyrogenation is performed using hot air, which is heated by an electric heating coil and constantly recirculates. Heat resistant high-capacity particle filters guarantee a Class A (100) clean room specification. The filters are mounted without a gasket to minimize generation of particles. The cooling zone gently cools down the containers before they are automatically transferred to a machine downstream.



- ① Infeed
- ② Pre-Heating Zone
- ③ Sterilizing Zone
- ④ Transport
- ⑤ Cooling Zone
- ⑥ Discharge
- ⑦ Visual Monitoring
- ⑧ HMI

Visual Monitoring



Heat Exchanger



Baffle Plates



Transport System





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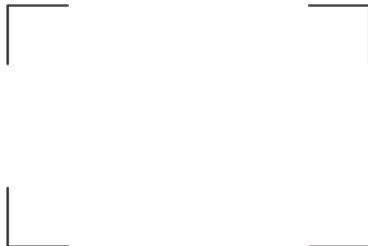
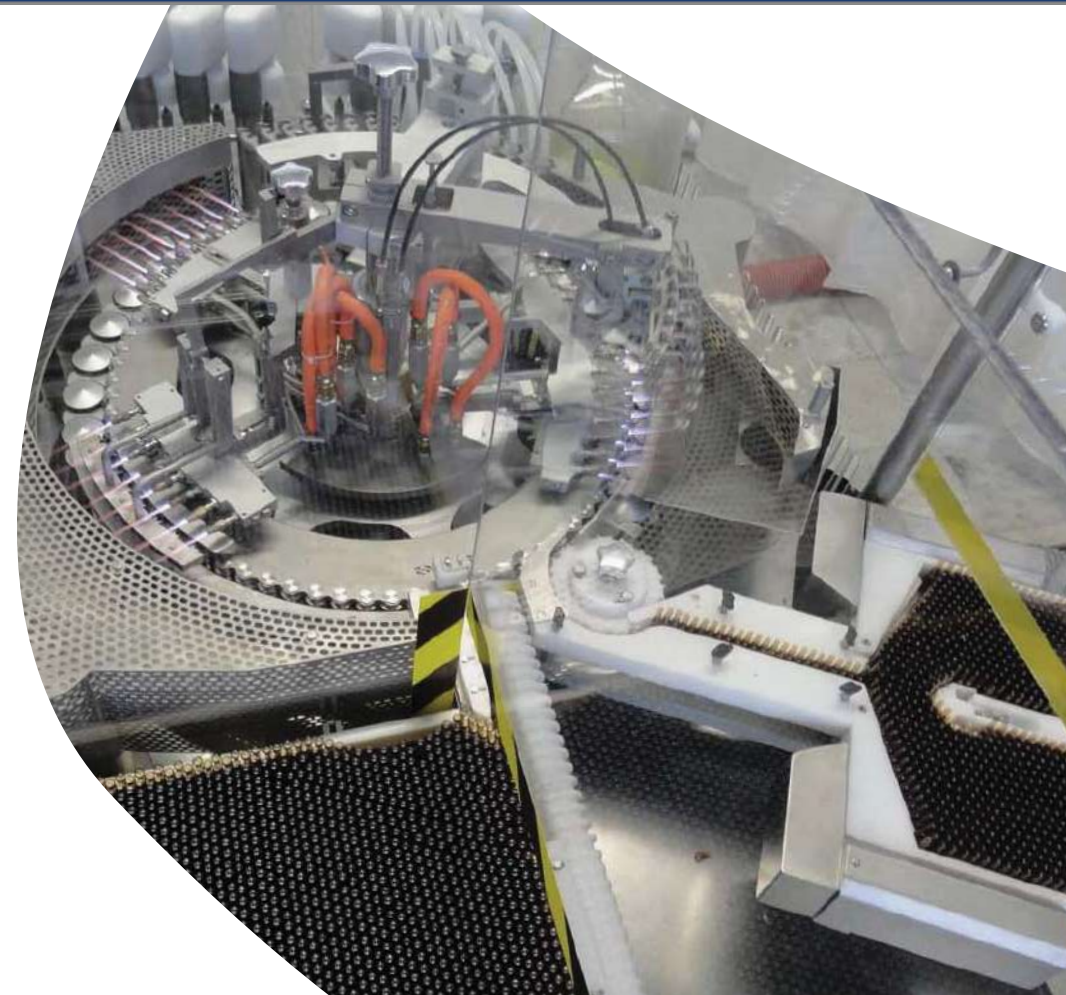


504-505-506 Filling & Closing


Type 504-505-506 machines are designed for Filling & Closing of Ampoules & Vials

- Processes open and presealed ampoules
- Smooth continuous container transport minimizing breakage
- Rotation of the containers minimizes foaming
- Evenly heats ampoule stem leaving a perfect dome
- Compact design allows for easy integration within existing lines

| Technical Data | Type 504 | Type 505 | Type 506 |
|-------------------------|---------------------|-----------|-----------|
| Output (Containers/min) | up to 200 | up to 300 | up to 400 |
| Container Size Range | 700 mm | | |
| Dosing Range | 0.1 - 28 ml | | |
| Electrical Supply | 3 x 400 V, 50/60 Hz | | |



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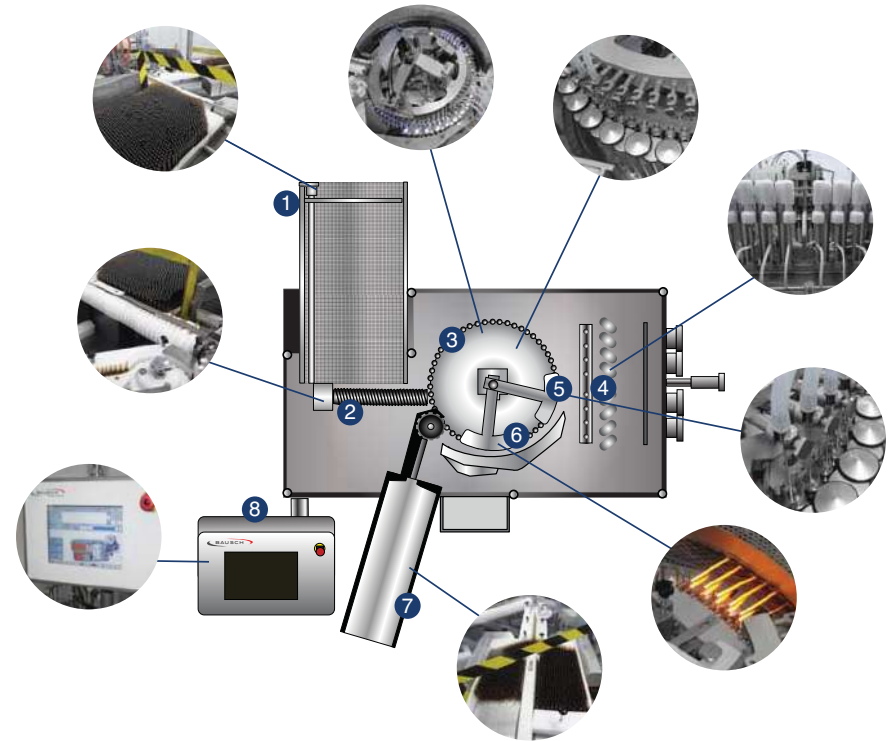
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Filling and Closing Machines for Ampoules & Vials

Type 504-506 machines fill and close open and pre-sealed ampoules as well as processing of vials at speeds of up to 400 containers/min. This design allows quick and easy change over from ampoules to vial processing. The rotary style machine provides a smooth and gentle continuous transport of the containers.



- 1 Container Infeed
- 2 Infeed Scroll
- 3 Transport System
- 4 Dosing Station
- 5 Filling Station
- 6 Two Step Sealing Process
- 7 Discharge
- 8 HMI



Vision System



Reject



Gassing



Opening of Closed Ampoules



Size Parts



Gassing



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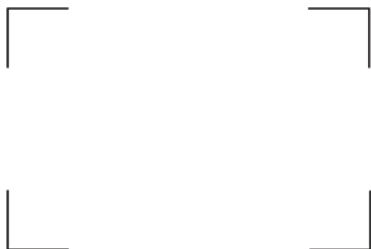
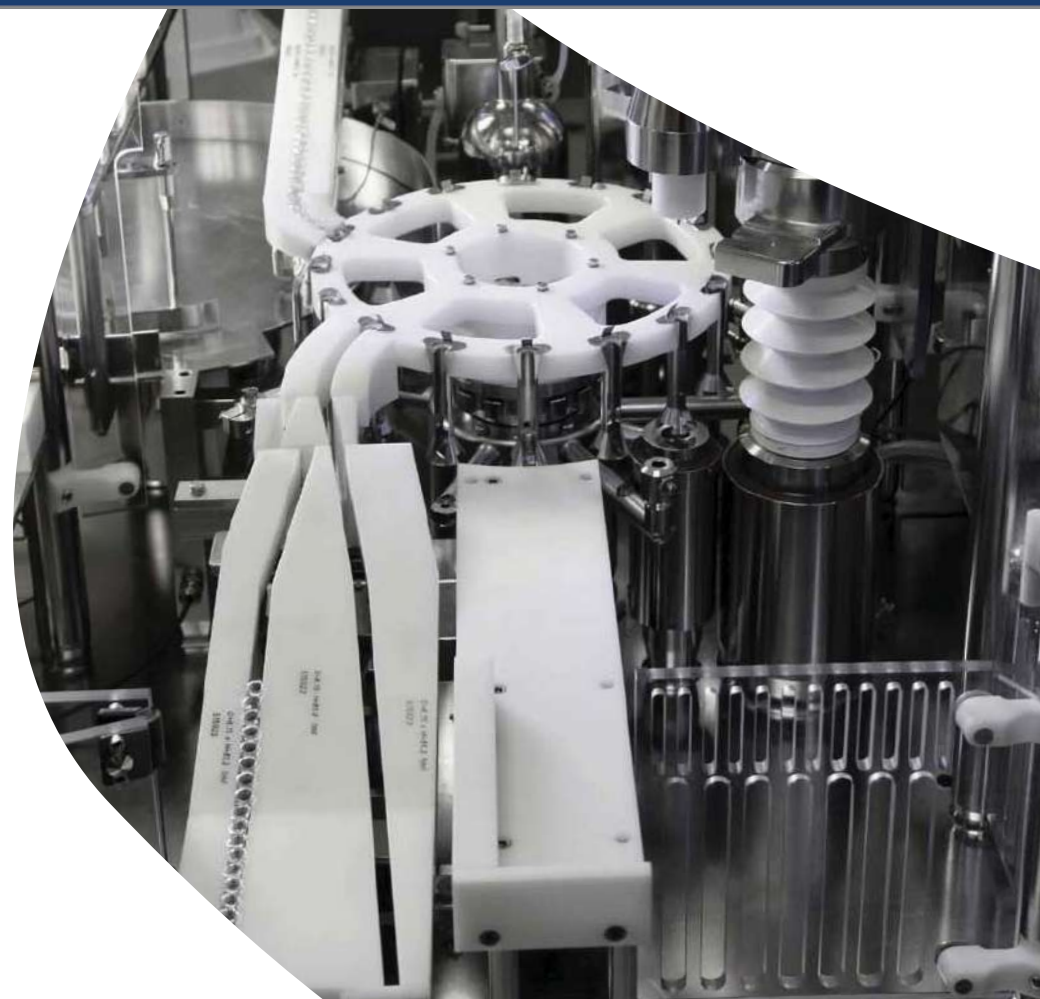


515 Vial & Syringe Filling & Closing

Type 515 machine is designed for Filling and Closing of Vials and Syringes on one machine

- Quick and easy size changeovers from Vials to Syringes
- Laminar flow friendly design for aseptic application
- Suitable for installation into an isolator
- Compact machine design with an integrated control cabinet
- Can be used as stand-alone machine or integrated in a complete processing line
- Provides optional In Process Check for Filling Accuracy

| Technical Data | Type 515 Combo |
|----------------------|-----------------------------|
| Output | up to 60 containers/ min |
| Container Size Range | Ø 5mm - 30mm, H 10 - 130 mm |
| Dosing Range | 0.1 - 100 ml |
| Electrical Supply | 3 X 208 V , 50/60 Hz |



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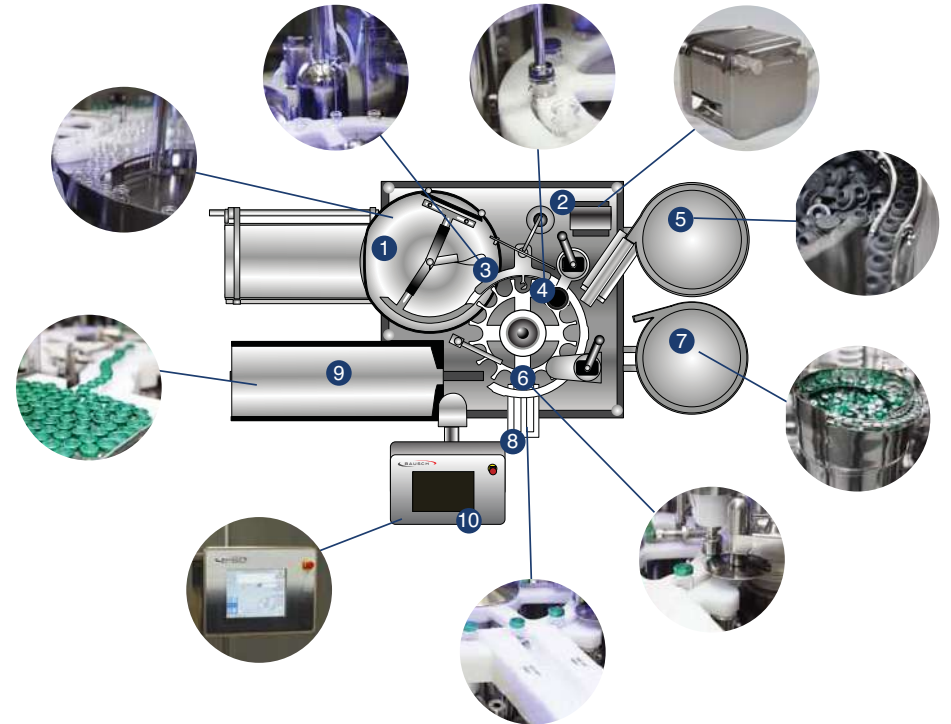
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Filling and Closing Machine for Vials & Syringes

Type 515 is a combination processing machine for vials and syringes. Both vials and syringes are processed in similar ways but have separate size parts that will need to be changed in order to achieve the correct routine. Containers are transported into a star wheel that will move them to the dosing system. Filling needles are controlled by a servo drive for fast and accurate dosing range. Stoppering is fed through a sorting bowl, picked up by a vacuum tool and precisely inserted. Crimp capping is performed and closing monitored through precise torque.



Vision System



In Process Control



Laminar
Flow



Vials
& Syringes

- | | |
|------------------------|--------------------|
| 1 Infeed | 6 Sealing Station |
| 2 Dosing Station | 7 Cap Sorting Bowl |
| 3 Filling Station | 8 Reject Station |
| 4 Stopper Placement | 9 Discharge |
| 5 Stopper Sorting Bowl | 10 HMI |



Combo Filling & Closing Machine Type 515 for Vials and Syringes

Type 515 is a combination processing machine for vials and syringes. Both vials and syringes are processed in similar ways but have separate size parts that will need to be changed in order to achieve the correct routine. Containers are transported into a star wheel that will move them to the dosing system. Filling needles are controlled by a servo drive for fast and accurate dosing range. Stoppering is fed through a sorting bowl, picked up by a vacuum tool and precisely inserted. Crimp capping is performed and closing monitored through precise torque.

More information contact:

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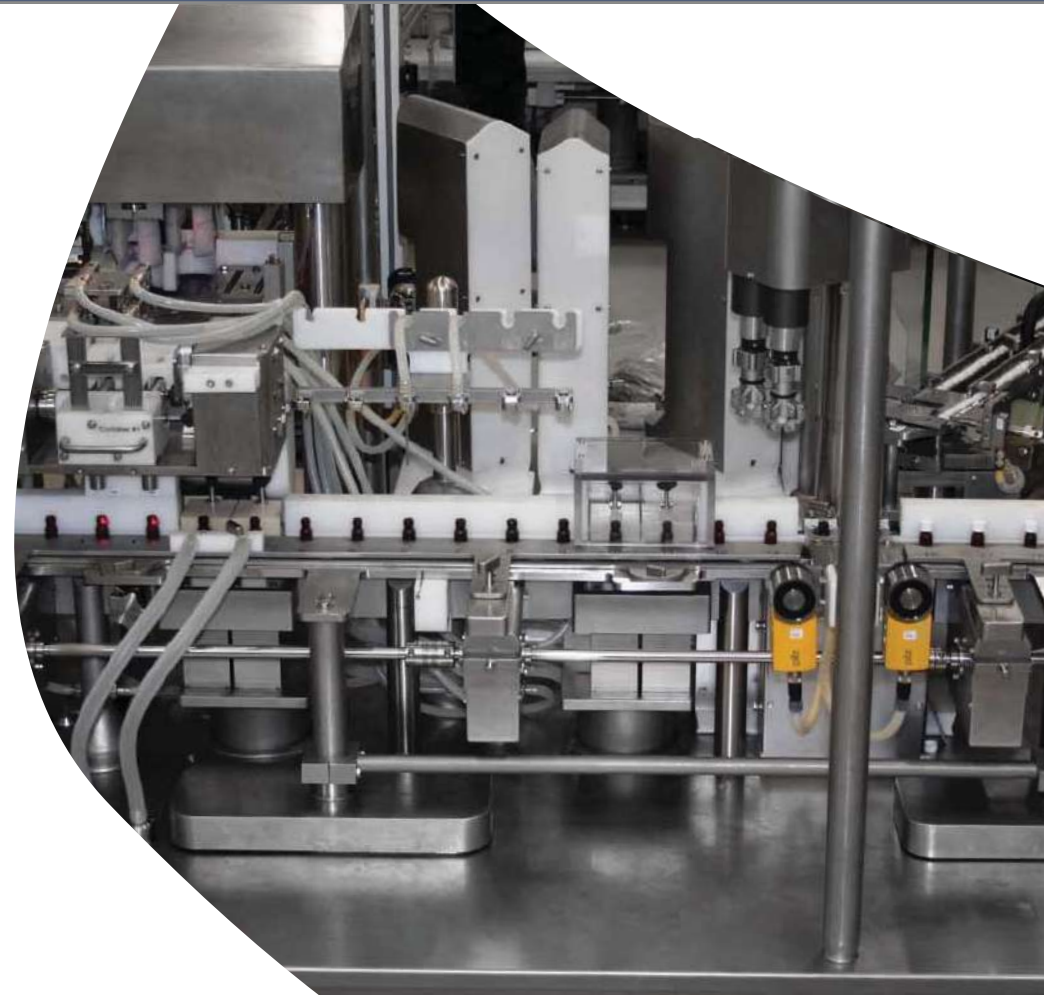


534 Filling & Closing Machine

Type 534 machine is designed for Filling and Closing a wide variety of stable or unstable containers

- Suitable for 100% IPC and 100% torque verification
- Various different filling systems can be integrated such as Rotary Piston Pump, Peristaltic Pump and Time Pressure Dosing
- Offers great flexibility for processing containers such as Vials and Bottles of various shapes, sizes and materials
- Modular machine design allows for easy customization to customer specific requirements

| Technical Data | Type 534 |
|----------------------|-----------------------------|
| Output | up to 200 containers/ min |
| Container Size Range | Ø 16 - 52 mm, H 30 - 130 mm |
| Dosing Range | 0.01 - 1,000 ml |
| Electrical Supply | 3 X 400 V , 50/60 Hz |



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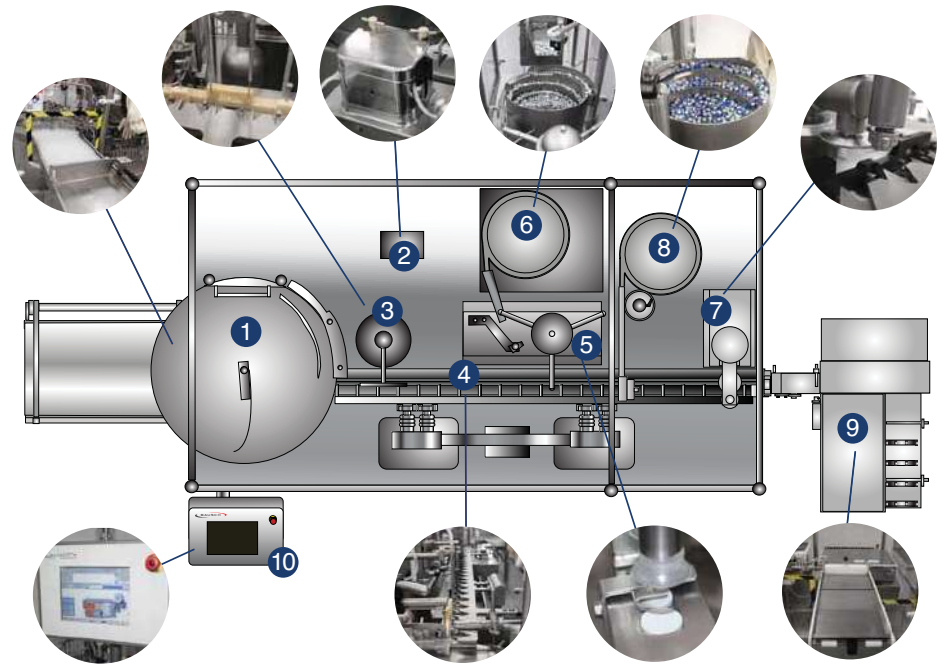
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Filling and Closing Machine for Vials, Bottles, Syringes, Cartridges and Other Containers

This walking beam transport system machine can process a wide variety of products and components. Due to its modular approach it can be easily customized based on customer specific requirements. Proven assemblies such as the in-feed turntable, high accuracy filling stations, various closing modules for screw and crimp caps, as well as different discharge models are available. The linear machine design is best suited for the installation of RABS and isolators.



- 1 Infeed Turntable
- 2 Dosing Station
- 3 Filling Station
- 4 Transport
- 5 Closing Station for Stoppers
- 6 Stopper Sorting Bowl
- 7 Closing Station for Caps
- 8 Cap Sorting Bowl
- 9 Discharge
- 10 HMI



Vision System



In Process Control



Welding



Laminar Flow



Reject Discharge



Product Recirculation



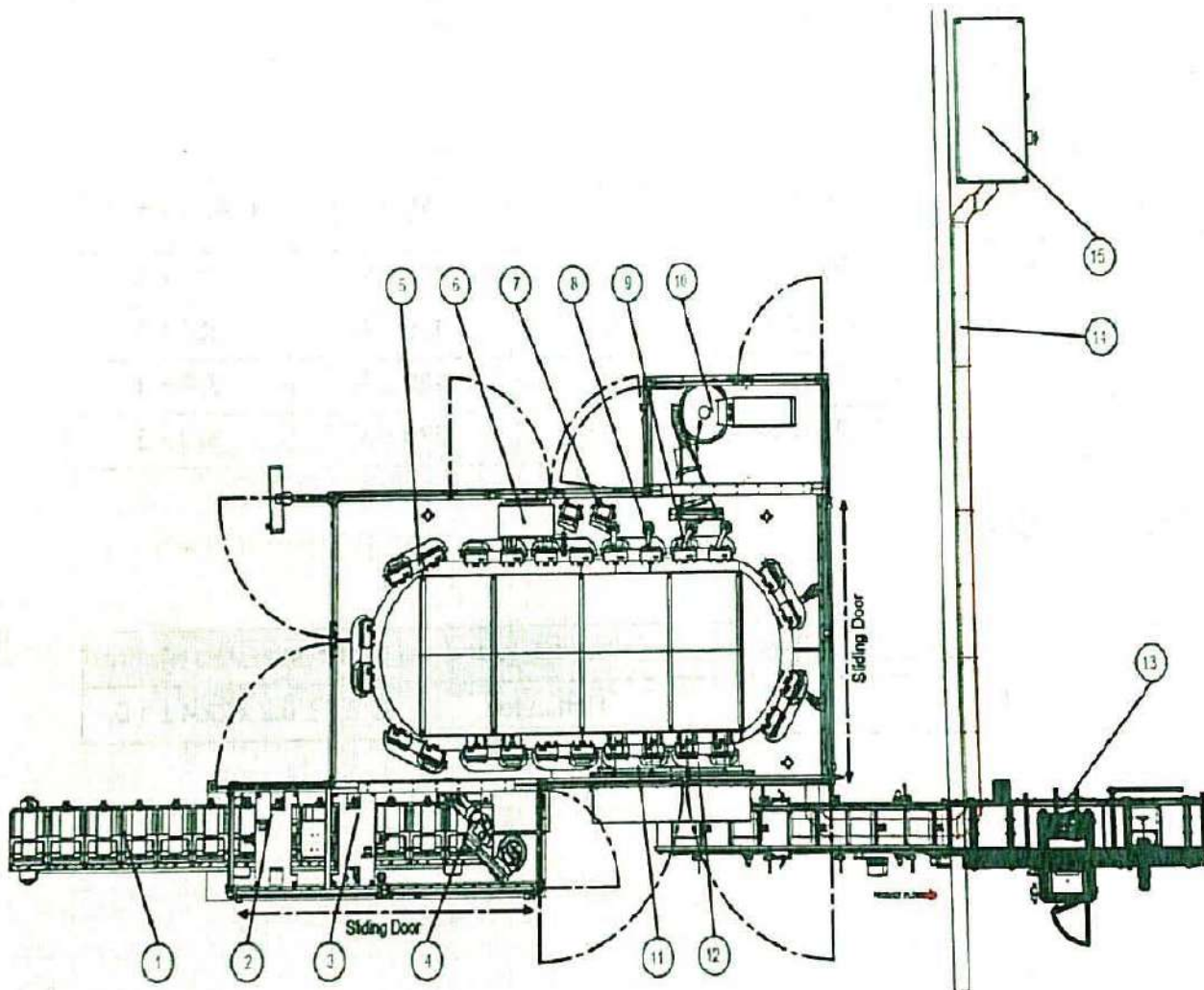
Size Parts



Hopper Elevator

Machine Details

Overview and Description of the Station



| | |
|----------------------|------------------------|
| 1. Infeed bags | 9. Stoppering station |
| 2. Printing station | 10. Sorting equipment |
| 3. Camera system | 11. Reject station |
| 4. Loading station | 12. Discharge |
| 5. Transport system | 13. Check weigh system |
| 6. Cut off station | 14. Electrical channel |
| 7. Peristaltic pumps | 15. Electrical cabinet |
| 8. Needle movement | |