

VEGA SERIES

ROTARY WASHING MACHINES



VEGA SERIES

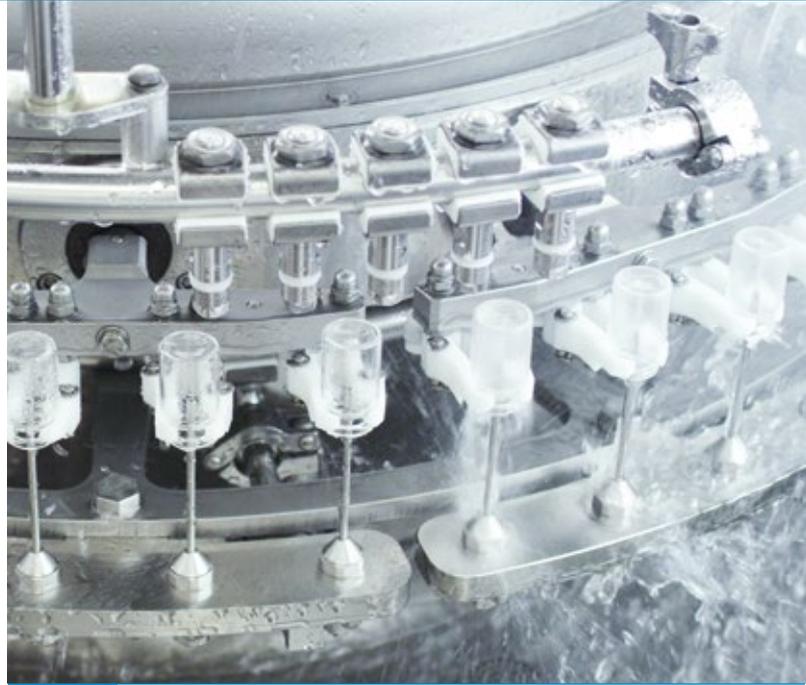
IMA Life's continuous motion rotary washing machines in the Vega series are designed for washing vials, bottles, ampoules and unstable cylinder-shaped containers.

The use of innovative designs and decontamination processes satisfies the most stringent market demands and guarantees perfect particle decontamination even in the event of strong contamination.

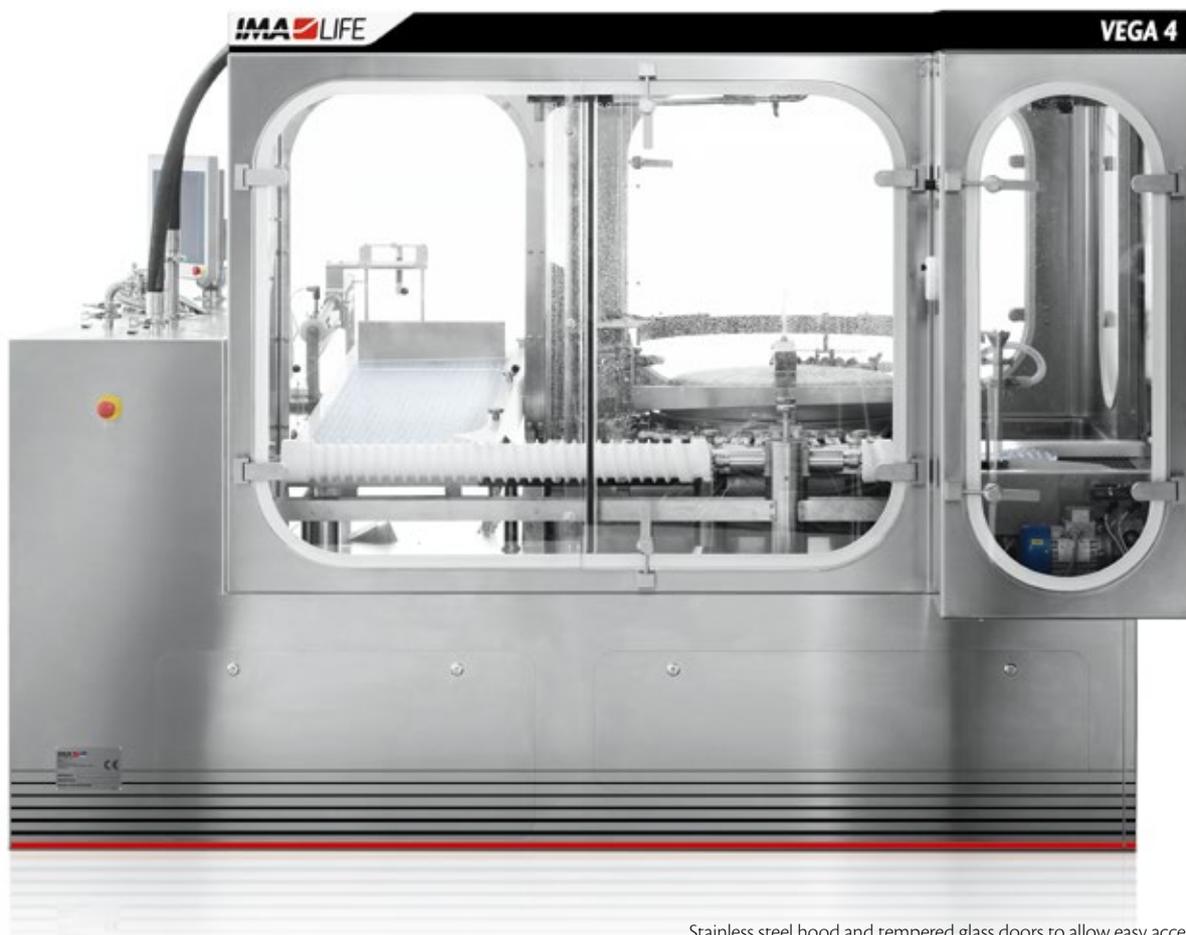
Completely made of 316 L stainless steel for the parts in contact with product and Aisi 304 for the structure, VEGA washing machines can handle a wide range of containers with simple toolless changeover parts. The quality of the plastic materials used is FDA approved.

The large selection of optionals such as automatic draining, siliconizing stations, tube drying system, steam stations etc., combined with IMA Life's flexibility provides the customers with the opportunity to customize the washer to meet with particular requirements.

All machine motions are controlled by servo motors including the needle movements, ensuring flexibility, easy and tool free management of size change-over.



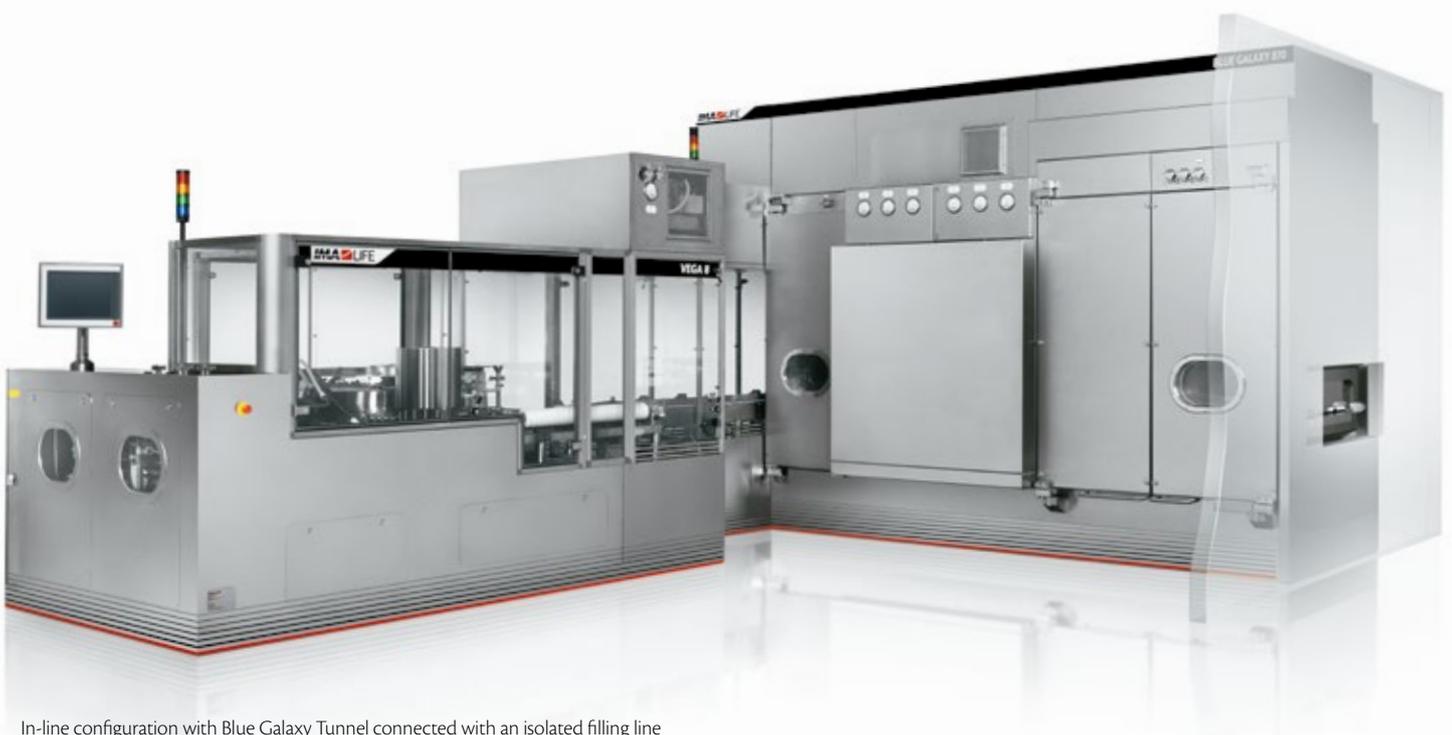
DECONTAMINATION TECHNOLOGY.



Stainless steel hood and tempered glass doors to allow easy access of operator to the whole working area

ROTARY WASHING MACHINE FOR AMPOULES AND VIALS

- UP TO 8 WASHING STATIONS AVAILABLE (POSSIBILITY TO CUSTOMIZE)
- POSSIBILITY TO HANDLE VIALS IN THE SVP RANGE (UP TO 100 ML)
- POSSIBILITY OF CHOOSING DIFFERENT LOADING UNITS: STABLE CONTAINERS, UNSTABLE CONTAINERS,
- UNLOADING UNIT FITTED WITH A SCREW FEEDER TO GUARANTEE THE CONTAINERS' STABILITY AT OUTFEED. POSSIBILITY OF UNLOADING ONTO A TRAY, A TURNTABLE OR A SYNCHRONISATION UNIT WITH A TUNNEL
- POSSIBILITY OF CYCLING THE MACHINE MANUALLY
- WIDE RANGE OF CONNECTIONS FOR A SMOOTH VIAL FEEDING, SUCH AS: IN-LINE, IN-LINE WITH SCREW FOR UNSTABLE BOTTLES, WITH FEEDING BELT AND WITH INTEGRATED ROTARY TABLE (ONLY WITH VEGA 2)
- HEIGHT OF THE TRANSFER GRIPPERS AND NEEDLE STROKE INDEPENDENTLY ADJUSTABLE TO AVOID DIFFERENT NEEDLE SIZE
- ULTRASONIC PRE-WASH CONNECTION (ONLY FOR VEGA 4, 6 AND 8 VERSIONS) WITH DE-PACKING MACHINES OR TURN TABLES
- STEAMING IN PLACE OF WASHING CIRCUIT
- AUTOMATIC DRAINING UNIT
- EASY-TO-USE OPERATOR INTERFACE WITH DIFFERENT LEVELS OF PASSWORDS AND MULTIPLE-LANGUAGES
- COMPACT VERSION FOR LOW SPEED PRODUCTION LINES, WITH UPSTREAM INTEGRATED ROTARY TABLE.



In-line configuration with Blue Galaxy Tunnel connected with an isolated filling line

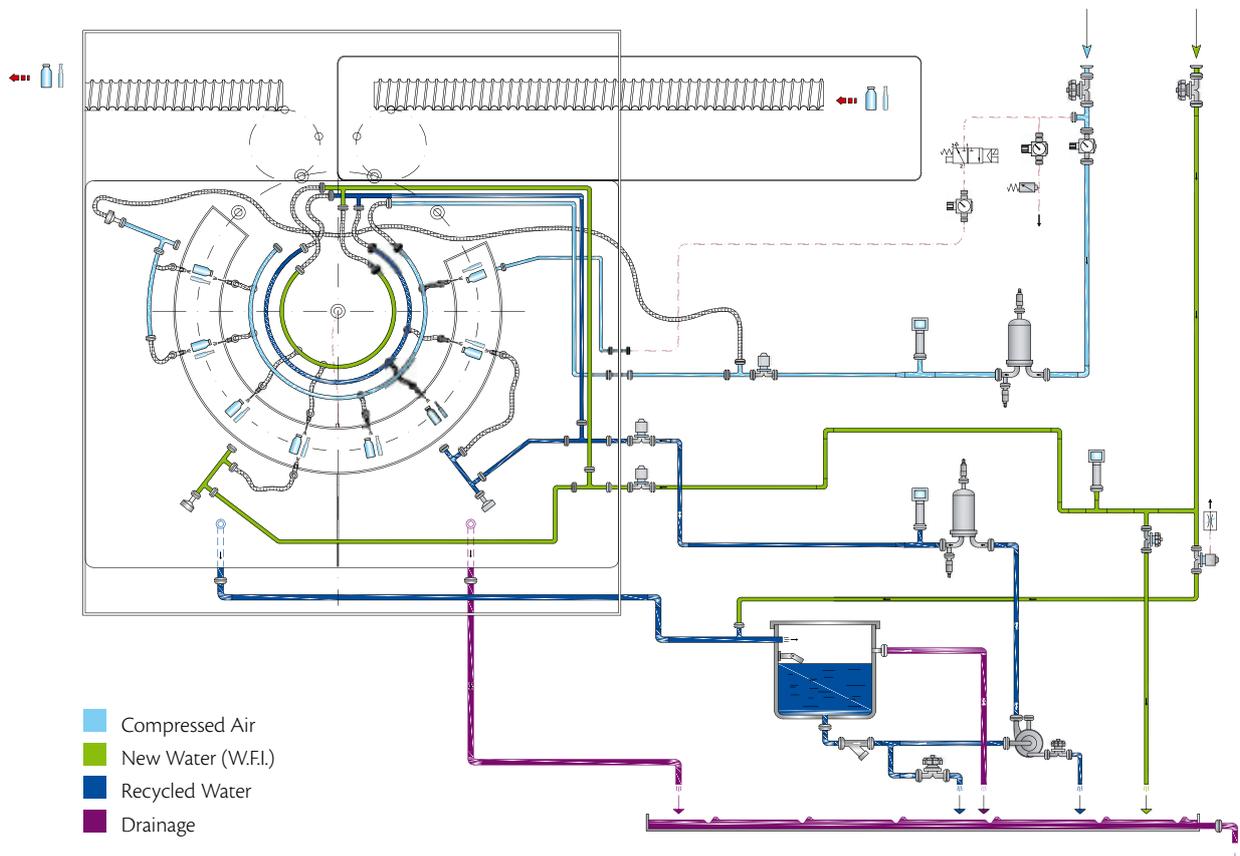
VEGA SERIES

OUR WASHERS ARE ENGINEERED WITH STRICT DECONTAMINATION METHODS.

Technologically advanced mechanical solution is the strongest point of the washing machines in the Vega series with extremely fluid, precise movements, keeps the integrity of the processed product and guarantees the utmost precision and reliability over time. Any foreign bodies present in the container packing are automatically rejected in the loading phase without affecting.



STANDARD WASHING CYCLE



The washing cycle guarantees 3 logs particles reduction. The cycle can be customized according to the requested process.



WASHING STATION

STATION N° 1

Vial internal blowing with sterile filtered compressed air

STATION N° 2

Vial internal & external washing with recirculation water

STATION N° 3

Vial internal washing with recirculation water

STATION N° 4

Vial internal blowing with sterile filtered compressed air

STATION N° 5

Vial internal & external washing with distilled or (de-mineralized water) WFI

STATION N° 6

Vial internal washing with distilled or (de-mineralized water) WFI

STATION N° 7

Vial internal & external blowing with sterilized filtered compressed air

STATION N° 8

Vial internal & external blowing with sterilized filtered compressed air

The 8 stations are provided with independent connections to avoid cross contaminations among the different washing media.

The washing sequence can be easily configured according to the different needs in order to increase the efficiency of the cleaning process.

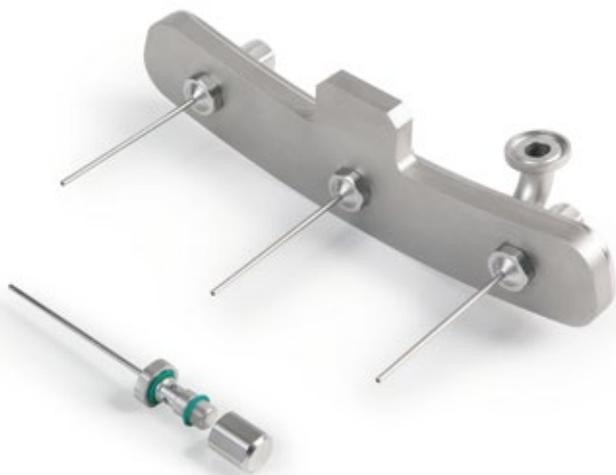
Based on customer's specific needs the machine can process, compressed air, WFI, recycled water and other media with dedicated circuits to be customized on demand.

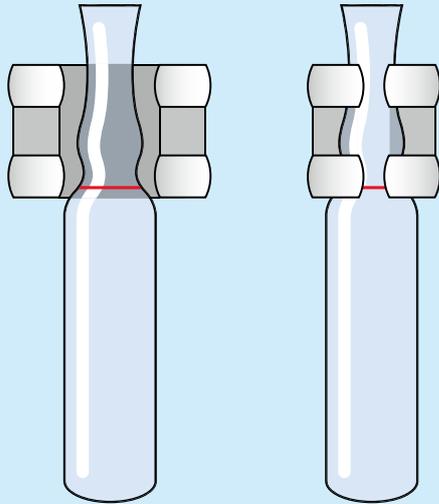
The machine control system allows the possibility to record all parameters related to supply utilities in order to optimize and save consumption of WFI use.

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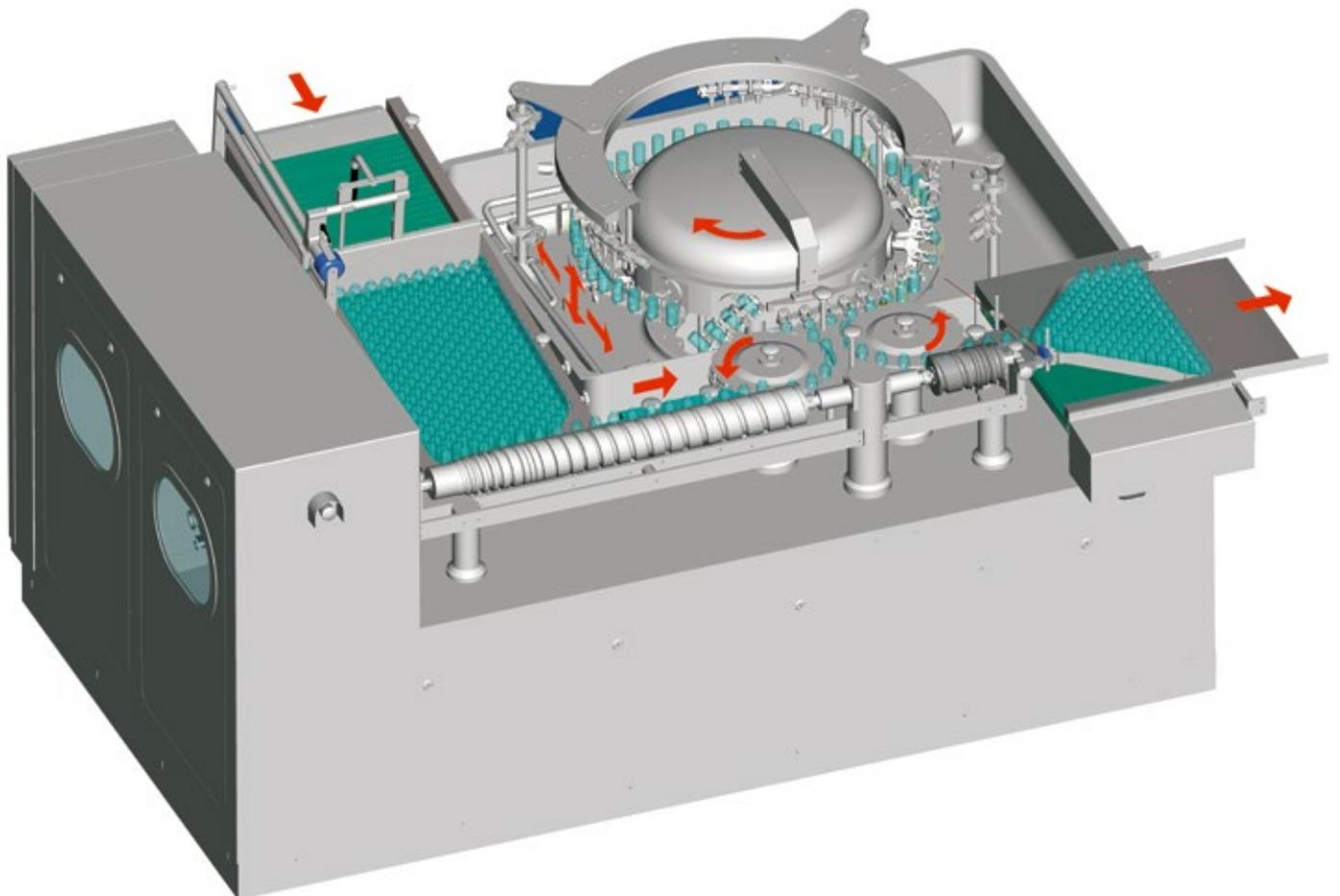
- THE GRIPPERS PICK UP THE CONTAINERS DELIVERED TO THE MAIN CARROUSEL VIA THE FEED SCREW AND THEN MAKE A 180° ROTATION
- THE NEEDLES ARE INTRODUCED INTO THE CONTAINERS AND WASH THEM, BY OPENING THE WASHING VALVES
- THE CONTAINERS, TRANSFERRED BY THE GRIPPERS THROUGH THE WASHING PROCESS, ARE TURNED ONCE AGAIN 180° BEFORE BEING PICKED UP BY THE UNLOADING STAR WHEEL
- THE UNLOADING STAR WHEEL, EQUIPPED WITH A LOWER DISK TO PREVENT CONTAINERS FROM RUBBING, TRANSFERS THEM TO THE UNLOADING FEED SCREW
- SEPARATE WASHING STATIONS WHERE NEEDLES ENTER THE CONTAINERS AND THE WASHING SEQUENCE IS ACCOMPLISHED.





THE GRIPPERS' SPECIAL DESIGN AND TYPE OF GRASP HAVE BEEN ENGINEERED TO AVOID THE VIAL/AMPOULE SLIDING ON THE GRIPPER. THIS DETAIL, ALONG WITH THE NEEDLE CENTERING UNIT, MAINTAINS THE VIAL/AMPOULE AT THE SAME HEIGHT THUS AVOIDING ANY RISK OF BREAKAGE OR CONTACT BETWEEN THE NEEDLE AND THE VIAL/AMPOULE.

VIAL FLOW ACCORDING TO GMP RULES



VEGA SERIES

- LEXAN COVER TO PROTECT AND LIMIT THE WASHING AREA
- DISTRIBUTION MANIFOLDS INTEGRATED WITH CENTRAL CARROUSEL
- EASY INSPECTION AND FULL ACCESSIBILITY



Containers can be contaminated by dilutable particles for example glass, rubber, metal, cellulose or by non-dilutable particles such as sodium oxide, calcium oxide, alkaline oxide. In the event of contamination by non-dilutable particles the washing machine can be equipped with an ultrasonic pre-wash.

Thanks to the transducers' special position, the jack conveyor chain and the special design of the vessel, the ultrasonic waves are spread extremely efficiently.

The pre-filling system and the possibility of adjusting the **ultrasonic power** allow the user to handle all types of containers, even the lightest ones or those with non-standard shapes.

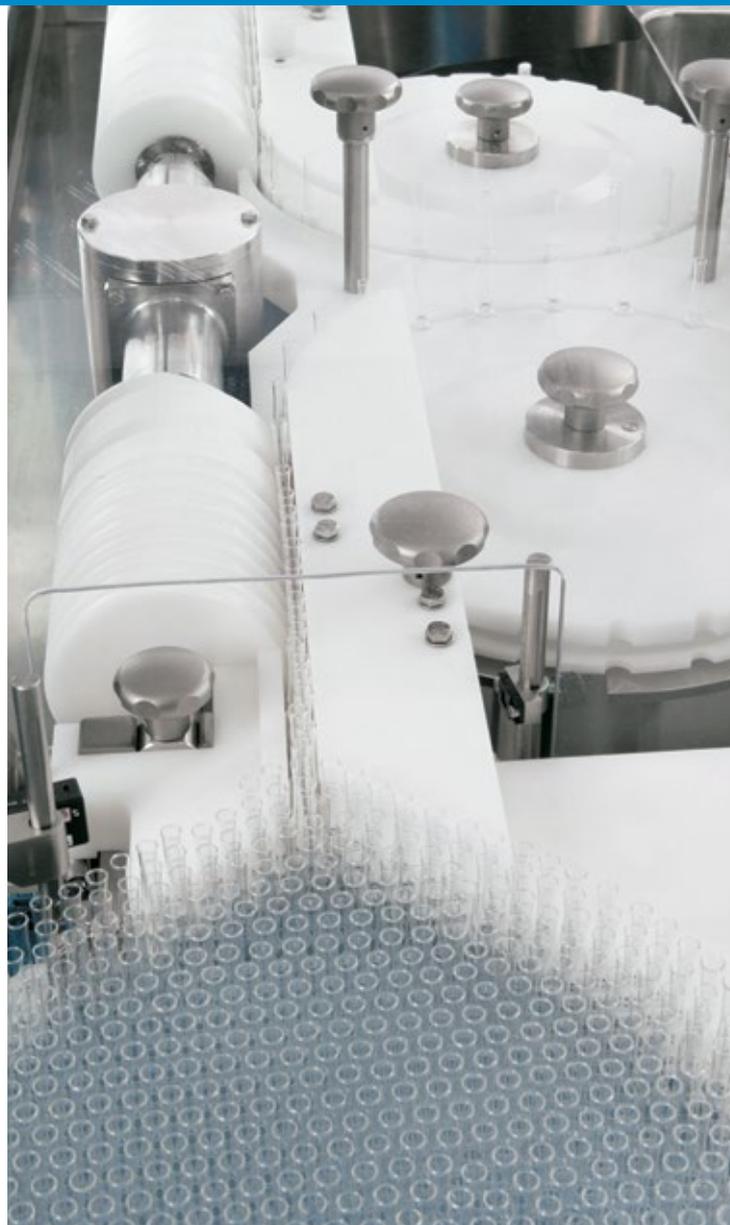
Containers are transferred by carousel from ultrasonic bath to pincers. The carousel is not affected by the ultrasonic bath.





A screw feeder transfers both vials and ampoules onto the loading carousel, which guarantees a successful transfer. The containers are maintained on the screw feeder by a technoplastic jack conveyor belt.

According to the type of container being washed, it is possible to connect the infeed with a turntable and/or with unpacking machines.



The unloading feed screw push the containers onto the unloading conveyor belt, made of technoplastic material and equipped with a separate motor, which allocates and compacts the containers entering the tunnel. The synchronization between washer and tunnel is carried out by PLC logic, while sensors monitor the correct production flow.

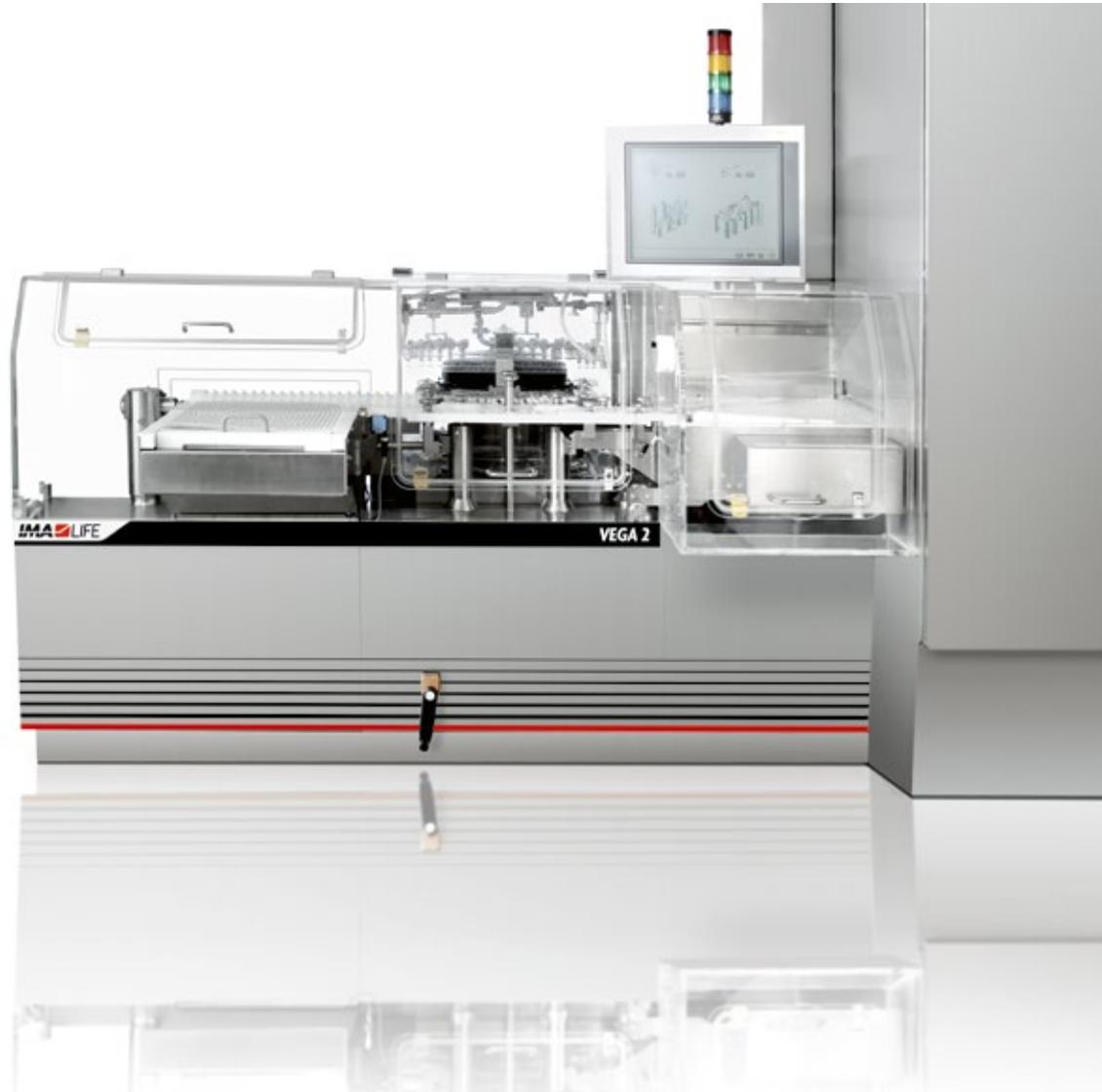
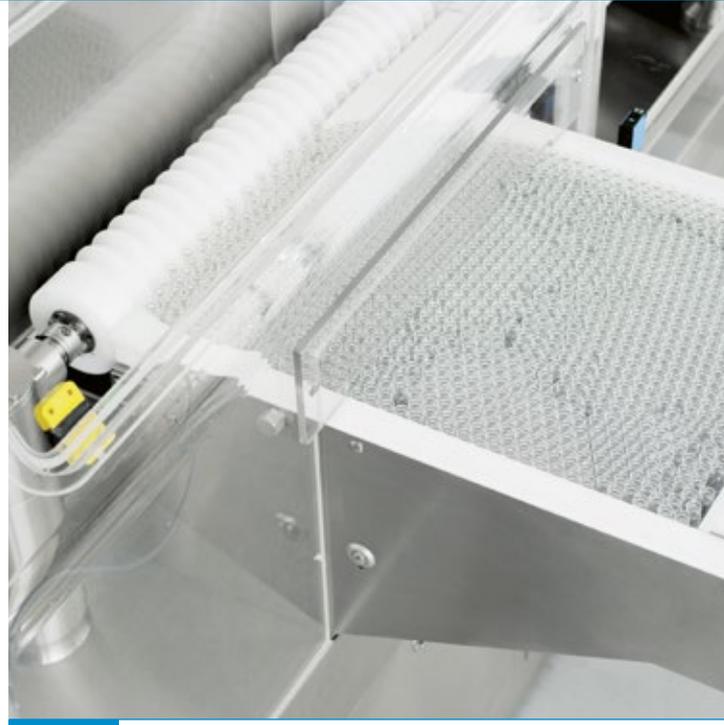
VEGA 2 COMPACT ROTARY VIAL WASHER FOR SMALL

THE PERFECT SOLUTION FOR A WET, COMPACT CLEANING

The expanding need of pre-filling decontamination machines within the Pharmaceutical Industry to remove product particles from the vials and the increasing demand for low/medium speed production requirements have led to the enhancement of IMA Life product range, which now comprises the **new VEGA 2** rotary washing machine.

With its advanced, compact and ergonomic design, VEGA 2 offers high versatility and ensures very easy installations where space constraint is an issue to cope with.

It is the ideal solution for low-speed production: covering a vial range from \varnothing 16mm up to \varnothing 56 mm the machine is suitable to handle and decontaminate round brand new containers, such as molded and tubular vials, and can process up to **9.000 vials/h** using **continuous motion positive transport system**.



State-of-the-art ergonomic design, optimizing machine accessibility and cleanliness

VOLUME PARENTERALS

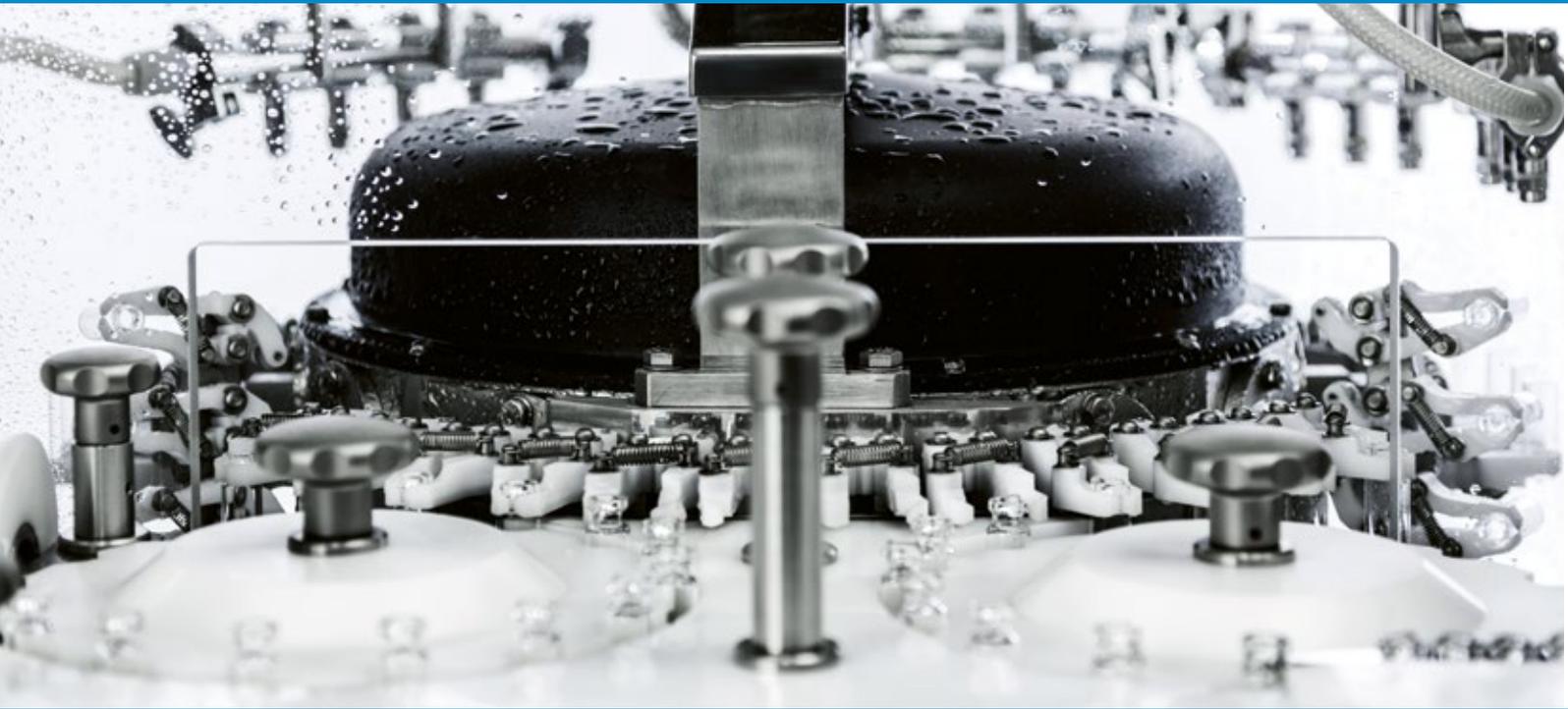


WIDE RANGE OF CONNECTIONS FOR A SMOOTH VIAL FEEDING.

As the conventional VEGA Series, vials can be directly fed in-line onto the in-feed belt of the machine, or from trays at 90° where a back pusher grants the stability of the containers and the correct pressure against the in-feed screw. Main advantage of VEGA 2 is the possibility to accomplish a smooth vial in-feed either from an upstream integrated rotary table.

Vial positive transfer to the washing station is guaranteed by dedicated starwheels and pincers. The machine is equipped with **up to 6 customizable washing stations** and the washing cycle is performed when containers are turned upside down with their neck pointing downwards, exactly like the conventional VEGA Series versions. Pressure and temperature of the various fluids are monitored to assure constant performances. Vials are processed in unidirectional way, avoiding any potential contamination.

VEGA 2 COMPACT ROTARY VIAL WASHER FOR SMALL



Main Carrousel driving unit

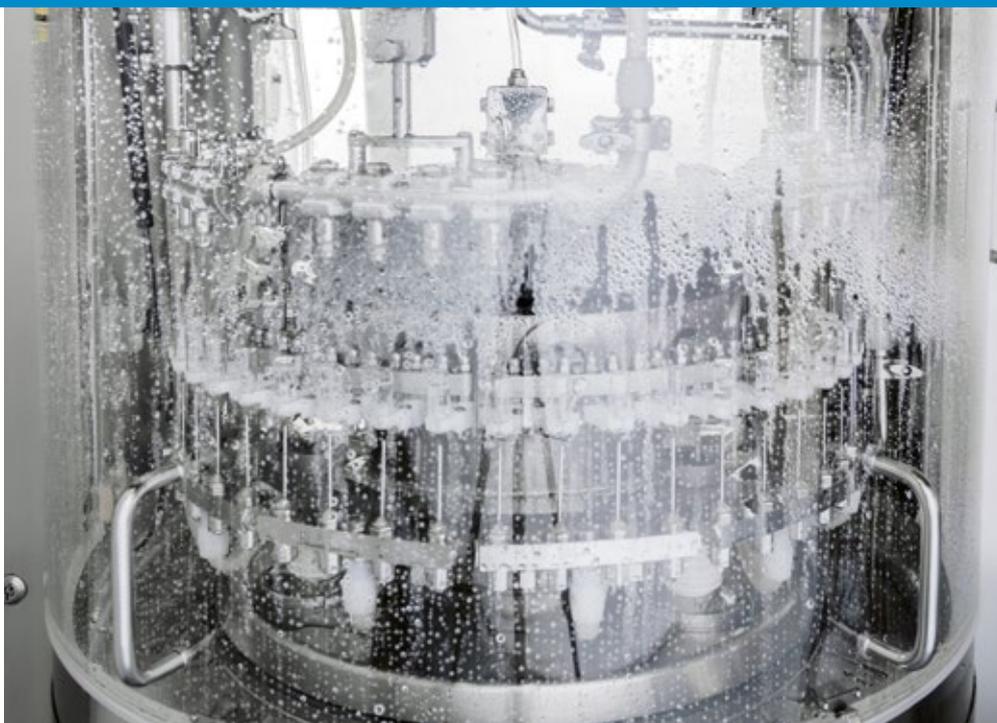
ALL MEDIA CARRYING PARTS ARE REALIZED IN AISI 316 L AND PROVIDED WITH FOOD GRADE PLASTIC MATERIAL APPROVAL.

Dedicated grippers for vial handling according to the shape of the container.

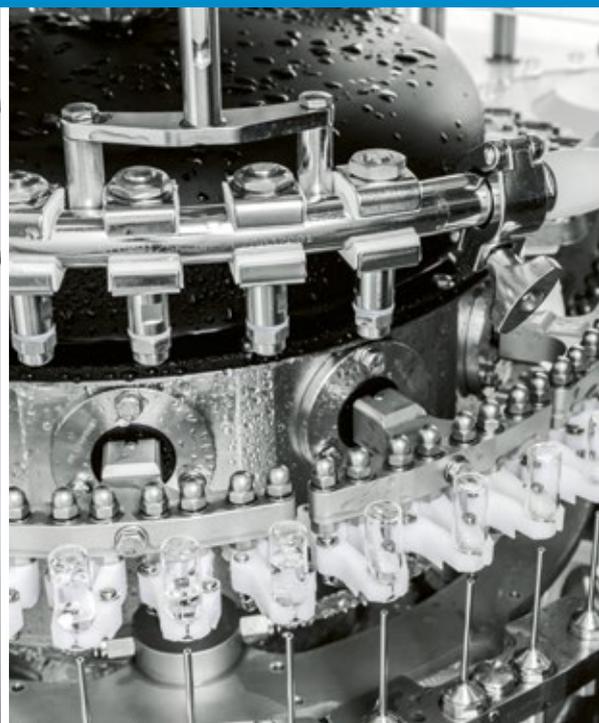
INTEGRATED RECYCLE TANK WITH ROUNDED CORNERS FOR EASY ACCESS AND CLEAN PROCESS.



VOLUME PARENTERALS



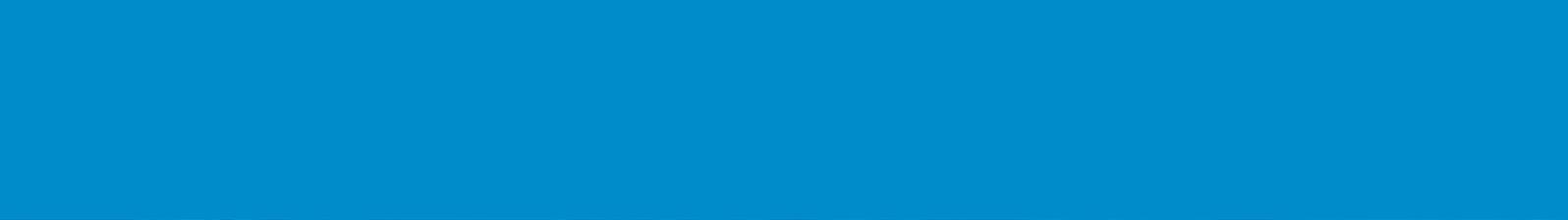
Washing process, rear overview



Internal and external washing detail

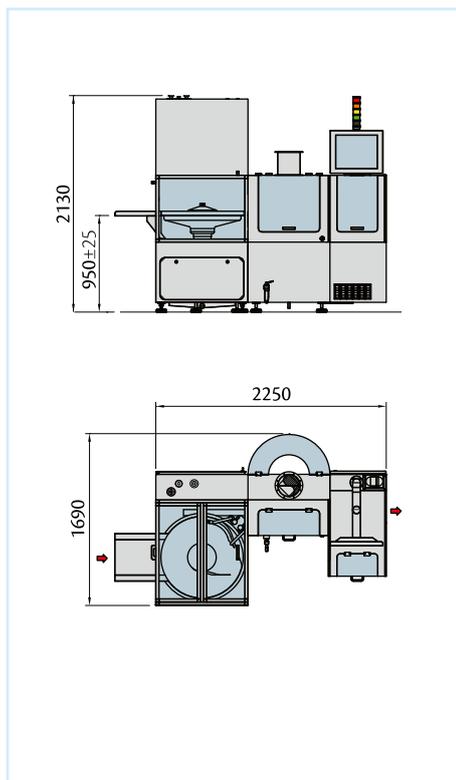
VEGA 2 KEY FEATURES:

- CARROUSEL HEIGHT ADJUSTABLE BY MEANS OF HAND WHEEL
- WASHING CYCLE WITH 6 STATIONS
- WASHING MANIFOLD INNOVATIVE DESIGN
- SELF-DRAINING PIPES
- FULLY AND EASY ACCESSIBILITY OF ALL INTEGRATED WASHING CIRCUITS COMPONENTS
- DRAIN BASIN, WITH MAIN DRAINAGE COLLECTION POINT
- INNOVATIVE MECHANICAL DRIVING UNIT DESIGN IMPROVING VIAL CONTINUOUS MOTION FLOW
- AVAILABILITY OF A SIP UNIT FOR ALL MEDIA CIRCUITS
- VERY QUICK AND SMOOTH SIZE CHANGEOVER
- INTEGRATED RECYCLE TANK WITH ROUNDED CORNERS FOR EASY CLEAN PROCESS AND WATER DRAINAGE IMPROVEMENT.

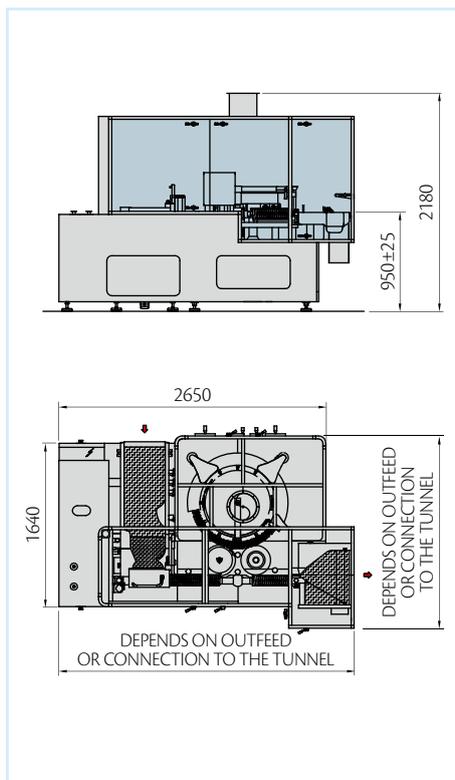


TECHNICAL DATA

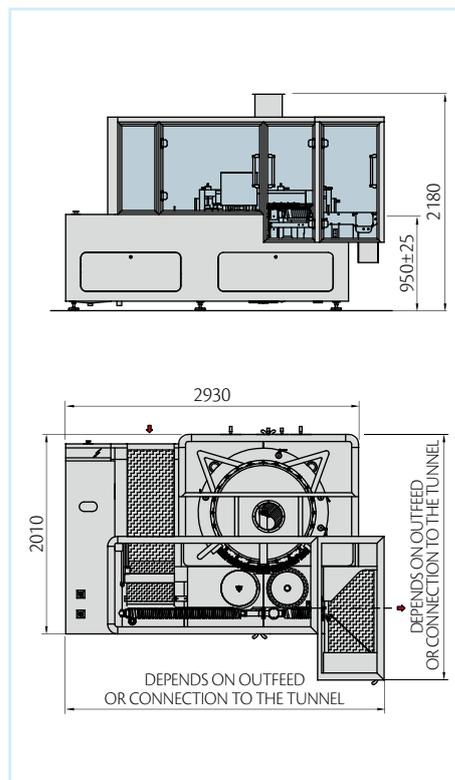
VEGA 2



VEGA 4/6



VEGA 8



	VEGA 2	VEGA 4	VEGA 6	VEGA 8
VERSION WITH 12/24 GRIPPER UNITS WITH 4/6 PINCERS				
Gripper units	12 gripper units with 4 pincers (total 48 pincers)	12 gripper units with 4 pincers (total 48 pincers)	12 gripper units with 6 pincers (total 72 pincers)	24 gripper units with 4 pincers (total 96 pincers)
Ampoules min. Ø (mm.)	-	10,75	10,75	10,75
Ampoules max. Ø (mm.)	-	22,50	17,75	17,75
Vials max. external Ø (mm.)	32	42,5	32	32
Vials max. height (mm.)	58	75	60	60
Cartridges	-	All sizes	All sizes	All sizes
Output up to (pcs/hour)	9000	12000	18000	24000
Ultrasonic pre-washing	-	✓	✓	✓
VERSION WITH 12/24 GRIPPER UNITS WITH 2/3 PINCERS				
Gripper units	12 gripper units with 2 pincers (total 24 pincers)	12 gripper units with 2 pincers (total 24 pincers)	12 gripper units with 3 pincers (total 36 pincers)	24 gripper units with 2 pincers (total 48 pincers)
Ampoules min. Ø (mm.)	-	10,75	10,75	10,75
Ampoules max. Ø (mm.)	-	22,50	22,50	22,50
Vials max. external Ø (mm.)	52	52	52	52
Vials max. height (mm.)	105	95	95	95
Cartridges	-	All sizes	All sizes	All sizes
Output up to (pcs/hour)	4500	6000	9000	12000
Ultrasonic pre-washing	-	✓	✓	✓

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