

VEGA

ROTARY WASHING MACHINE



ROTARY WASHING MACHINE FOR AMPOULES AND VIALS

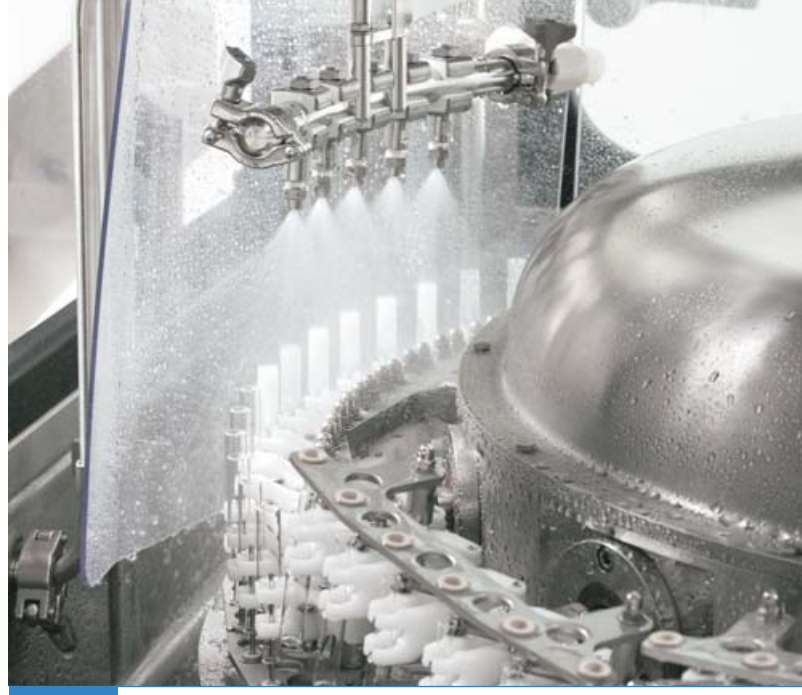
IMA Life's continuous motion rotary washing machines in the Vega series are designed for washing vials, bottles, ampoules and unstable cylinder-shaped containers.

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

- 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
- HEIGHT OF THE TRANSFER GRIPPERS AND NEEDLE STROKE INDEPENDENTLY ADJUSTABLE TO AVOID DIFFERENT NEEDLE SIZE
- ULTRASONIC PRE-WASH CONNECTION WITH DE-PACKING MACHINES OR TURNTABLES
- STEAMING IN PLACE OF WASHING CIRCUIT
- AUTOMATIC DRAINING UNIT
- EASY-TO-USE OPERATOR INTERFACE WITH DIFFERENT LEVELS OF PASSWORDS AND MULTIPLE-LANGUAGES.



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

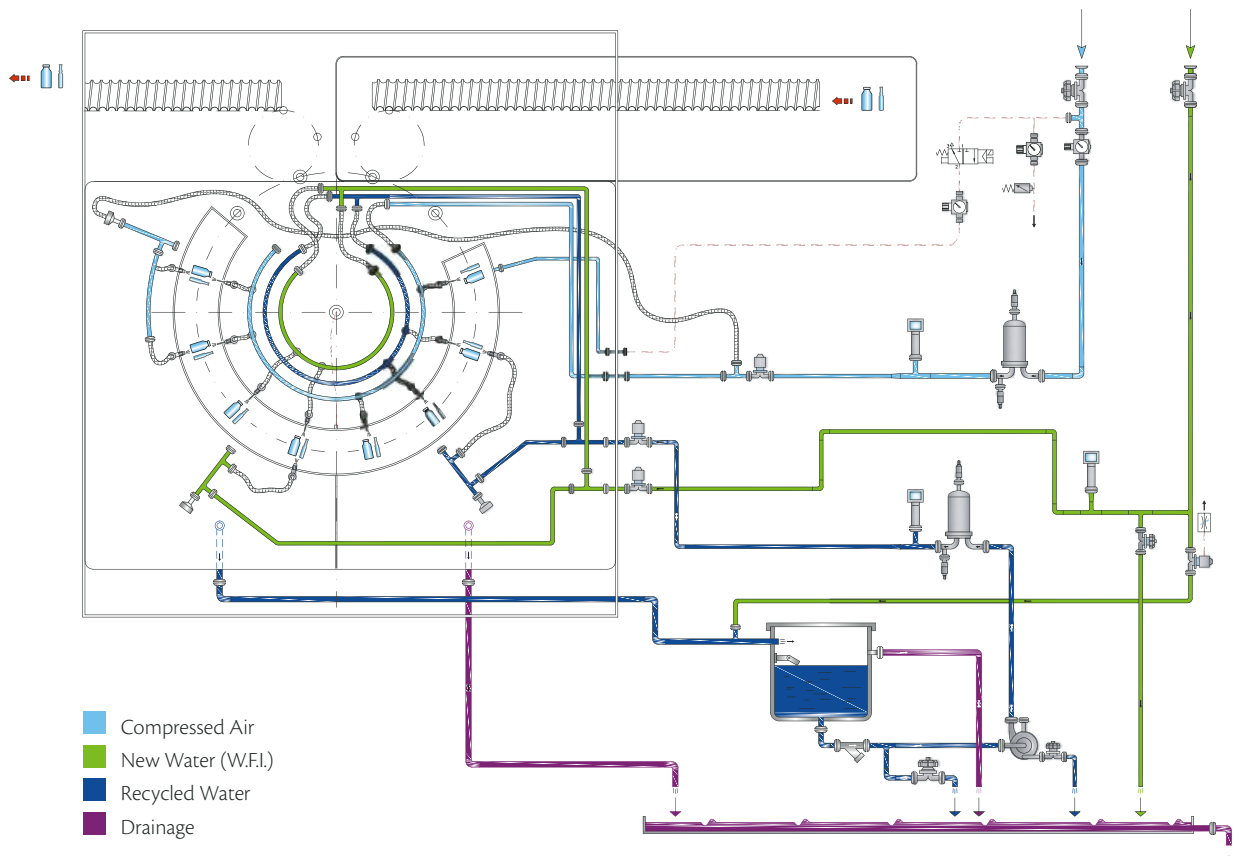
ROTARY WASHER

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 steriled filtered compressed air

STATION N° 8

Vial internal & external blowing with steriled 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.

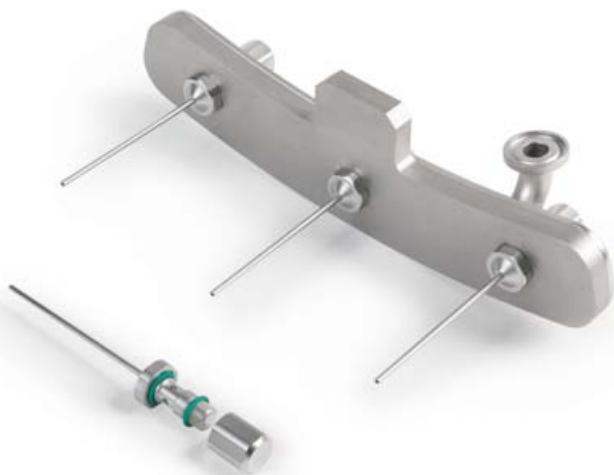
Based on customer's specific needs the machine can process, compressed air, WFI, recycled water and other media with dedicated circuits to be customized on demand.

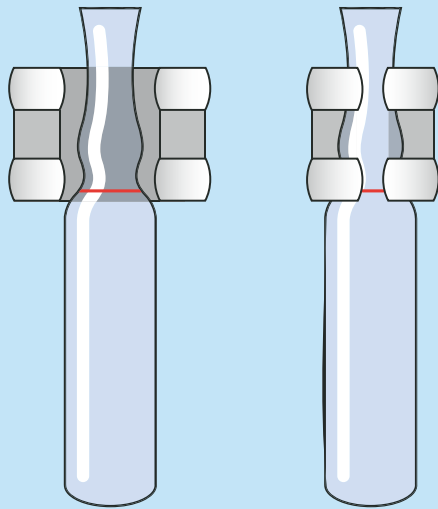
The machine control system allows the possibility to record all parameters related to supply utilities in order to optimize and save consumption of WFI use.

ROTARY WASHER



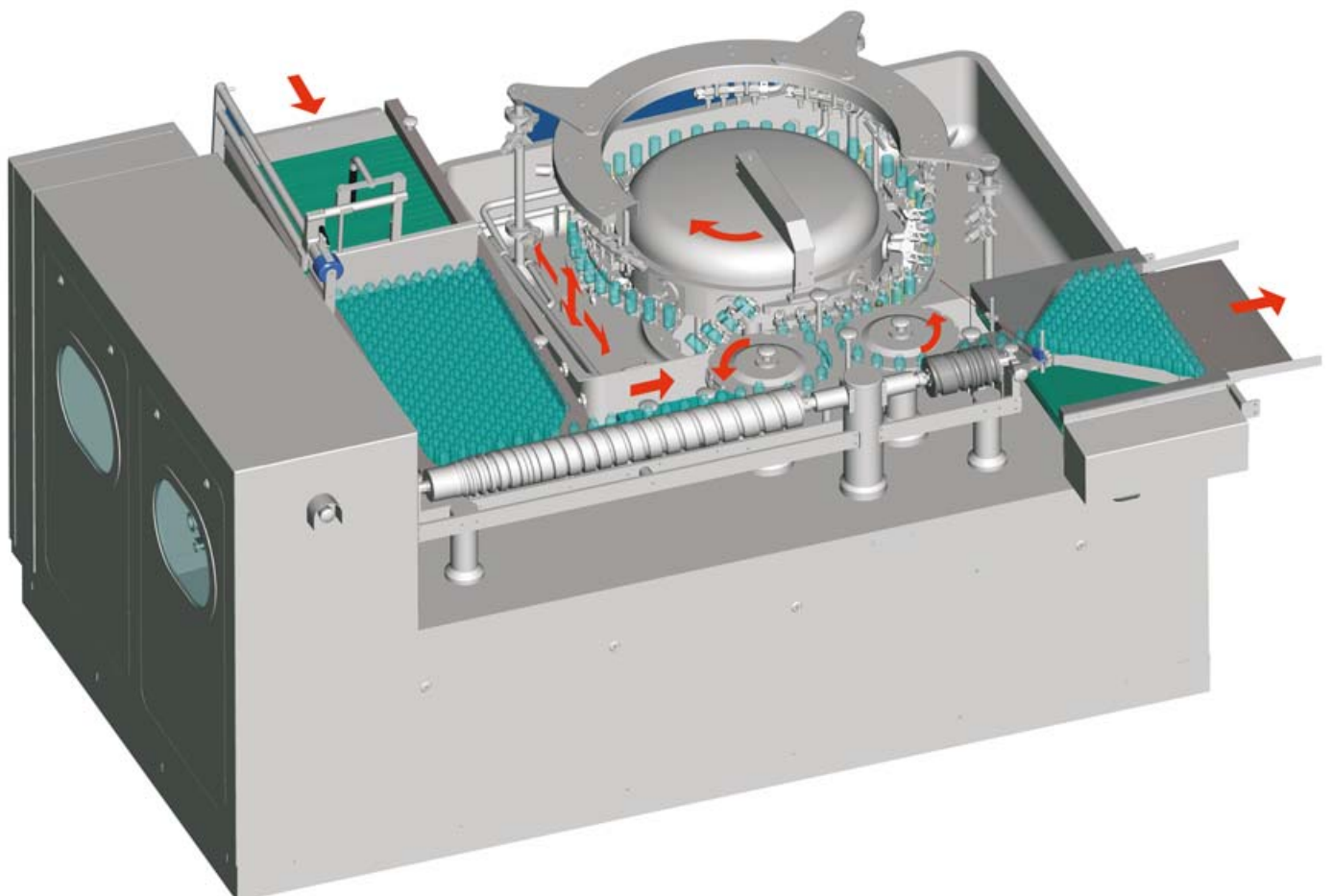
- THE GRIPPERS PICK UP THE CONTAINERS DELIVERED TO THE MAIN CARROUSEL VIA THE FEED SCREW AND THEN MAKE A 180° ROTATION
- THE NEEDLES ARE INTRODUCED INTO THE CONTAINERS AND WASH THEM, BY OPENING THE WASHING VALVES
- THE CONTAINERS, TRANSFERRED BY THE GRIPPERS THROUGH THE WASHING PROCESS, ARE TURNED ONCE 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



ROTARY WASHER

- 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.



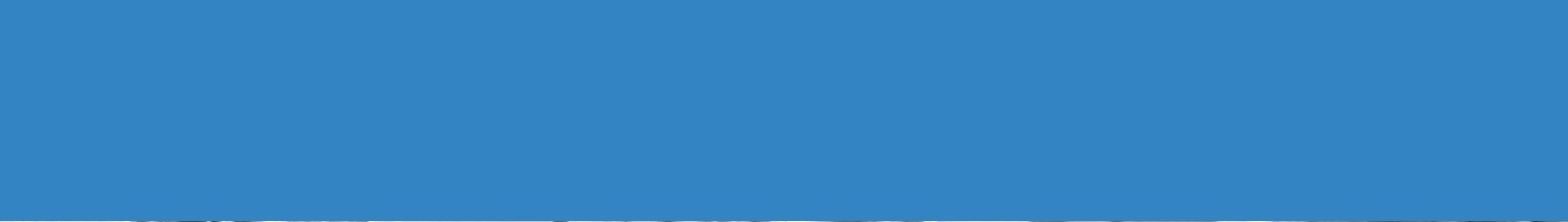


A screw feeder transfers both vials and ampoules onto the loading carousel, which guarantees a successful transfer. The containers are maintained on the screw feeder by a technoplastic jack conveyor belt.

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

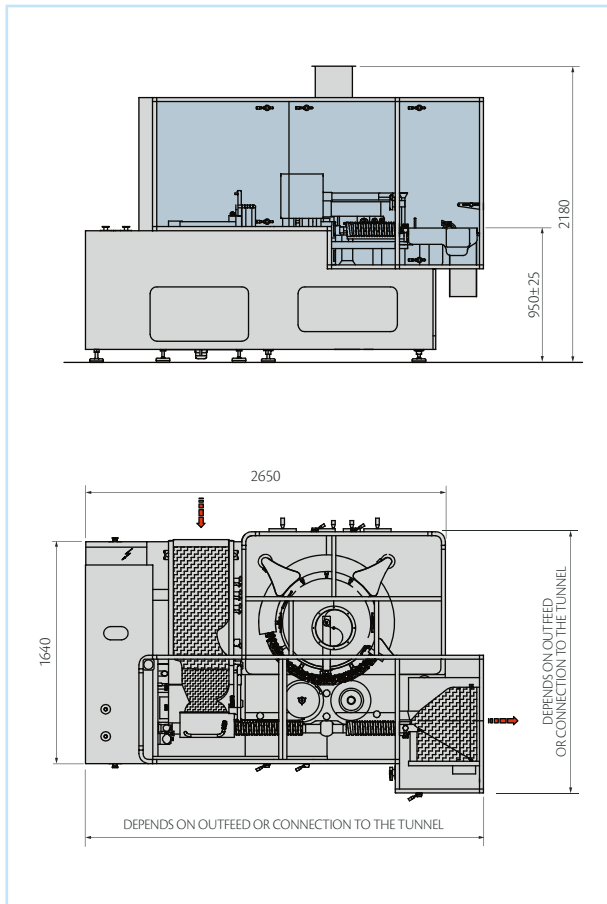


The unloading feed screw push the containers onto the unloading conveyor belt, made of technoplastic material and equipped with a separate motor, which allocates and compacts the containers entering the tunnel. The synchronization between washer and tunnel is carried out by PLC logic, while sensors monitor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

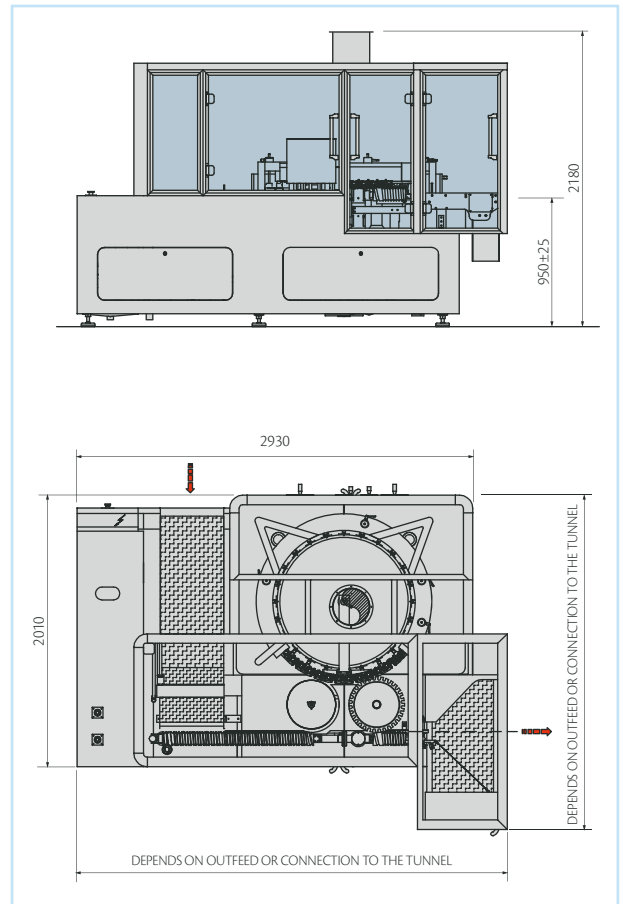


VEGA TECHNICAL DATA

VEGA 4/6



VEGA 8



	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 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.)	42,5	32	32
Vials max. height (mm.)	75	60	60
Cartridges	All sizes	All sizes	All sizes
Output up to (pcs/hour)	12000	18000	24000
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 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.)	51,6	51,6	51,6
Vials max. height (mm.)	95	95	95
Cartridges	All sizes	All sizes	All sizes
Output up to (pcs/hour)	6000	9000	12000

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