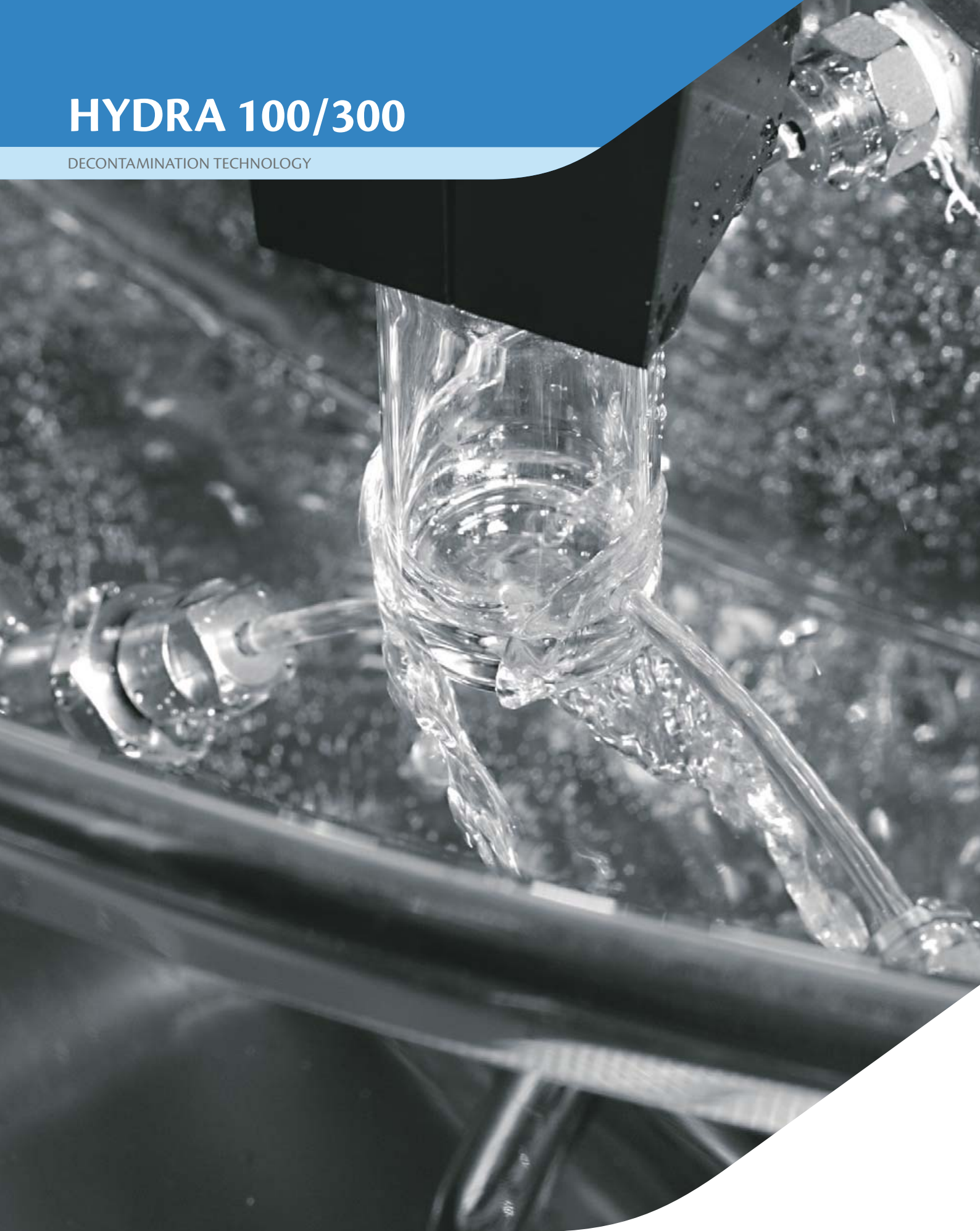


HYDRA 100/300

DECONTAMINATION TECHNOLOGY



HYDRA 100 EXTERNAL VIAL WASHERS

Decontamination of vial external surfaces involves the destruction or removal of any presence of product residual in order to prevent them infecting the operators and cross contamination between containers and machine. This is a crucial and vital issue, especially in case of cito-toxic or potent compounds.

Decontamination process can be carried out by using new water or, in case of toxic products, by adding dedicated washing media to the new water, so as to avoid any contamination risk and also maintain the useful life of equipment.

IMA Life machine range is particularly suited to achieve this aim, thanks to its washing cycle features which can comply with the actual requirements of the aseptic environment.

THE HYDRA SERIES EXTERNAL WASHERS ARE THE IDEAL SOLUTION FOR ANY OUTPUT RANGE REQUIREMENT:

- FROM LOW TO MEDIUM SPEED:
HYDRA 100 LINEAR WASHER THE IDEAL COMPLETION FOR ASEPTIC PROCESSING LINES INCLUDING IMA LIFE STERIFILL SMART FILLING & STOPPERING MACHINE, UP TO 120 VPM;
- FROM MEDIUM TO HIGH SPEED:
HYDRA 300 ROTARY WASHER FOR HIGHER SPEED LINES, UP TO 300 VPM.



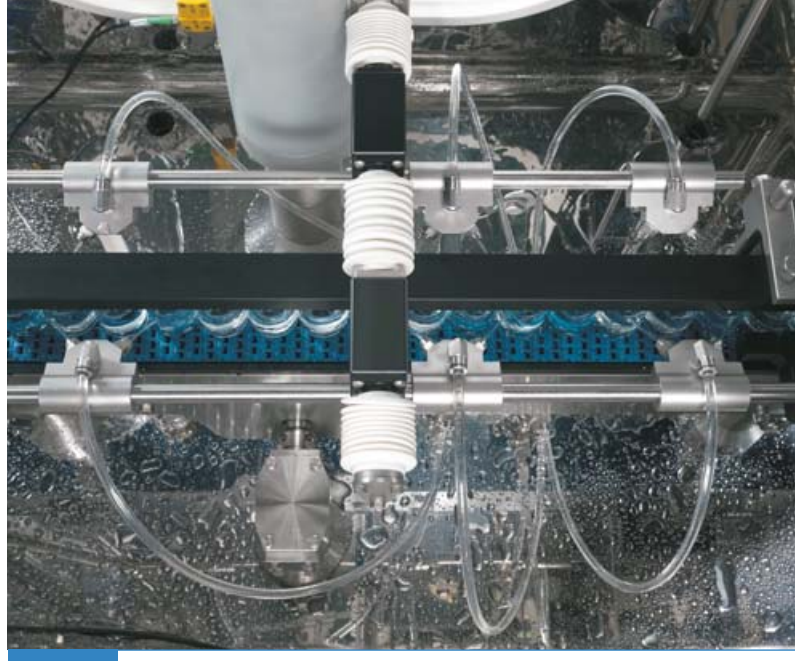
The Hydra 100 machine is conceived for the continuous external wash of cylindrical containers (bottles, vials, etc.).
The water used to wash the vials is drained through a specific pipe for which the Customer is responsible for piping to drain.



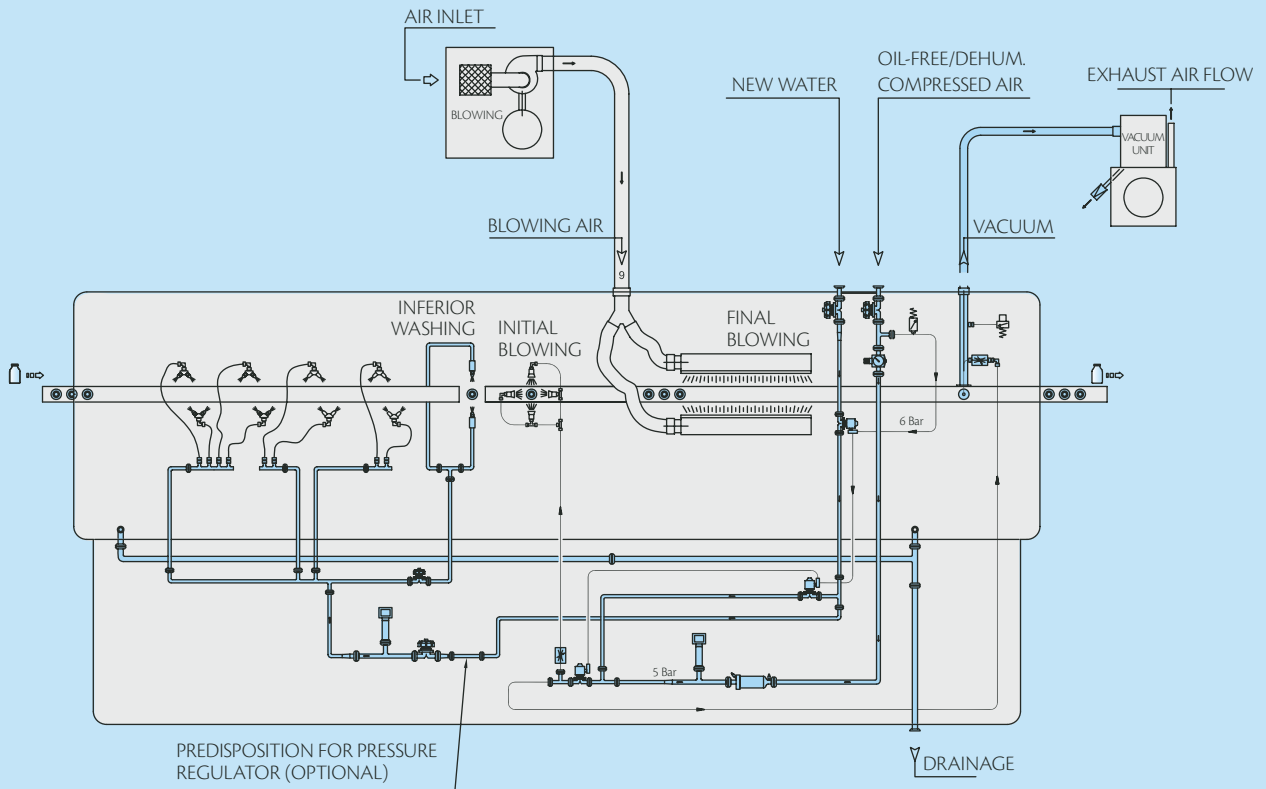
HYDRA 100 EXTERNAL VIAL WASHER

The vials are taken by the in-feed conveyor belt and are guided to the first station of the washer where a series of nozzles installed at different angles and heights, dispenses the washing fluid to remove contamination from the vials.

The spray nozzles are height-adjustable according to the vial dimensions to be treated. The position and the orientation of the spray nozzles, linked to the hydraulic system, allow the water to create a perfect flow around the vial.



EXAMPLE FOR HYDRA 100 WASHING CYCLE



Media connection located at the top of the washer.

New water loop supplied with a washing valve that opens or closes when the vials are processed.



NEW WATER CIRCUIT INCLUDING:

- EXTERNAL CONNECTION TO THE WATER FEEDING;
- ELECTRO-PNEUMATIC SANITARY VALVES FOR FLOW MANAGEMENT;
- WATER PRESSURE DISPLAY;
- COLLECTION MANIFOLD FOR WATER DRAINAGE

Soon after the vials have been thoroughly washed, they are consequently moved through the blowing station where two skimming blades, connected to a high-capacity blower on top of the station (to be installed onto the technical floor), remove all water particle residuals and dry the vials. The blowing system does not use hot air.

The vacuum is created by an aspirator that collects, by means of its manifold, the residual water in a st. st. 60 lt. tank with relevant drainage automatic valve.

Onto the out-feed conveyor belt a suction unit removes the water from the vial bottom. At the washer exit, vials are collected in tray.



HYDRA 300 EXTERNAL VIAL WASHER

HYDRA 300 rotary washer is suitable to wash the external surface of glass and plastic containers which could have been potentially contaminated by the product during the filling process.

Special techniques are used to avoid cross contamination between containers and the machine.

The water supplying system has been designed to allow a steady water flow to assure the separation of the contaminating agent and its dragging towards the drainage points, as well.

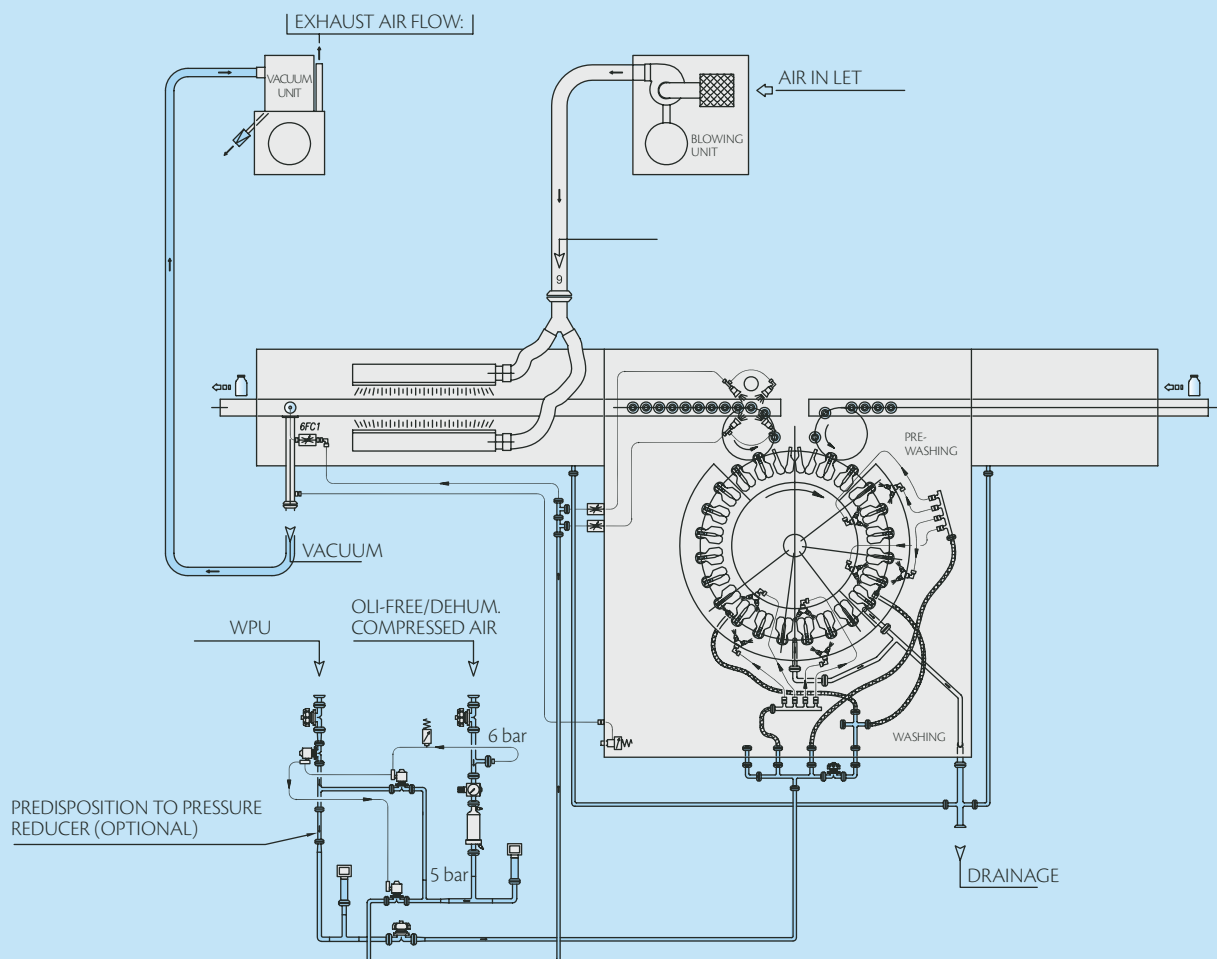




The vials are transferred via a scroll to the star-wheel and conveyed to the central carousel where they are picked up by plastic grippers. The grippers are designed in a way so as not to damage the caps and to protect the closures from possible water spillages which may cause fungal growth.

The vials are hanging by the grippers while being washed out for approx. 280° rotation of the central carousel by means of properly oriented spraying nozzles.

EXAMPLE FOR HYDRA 300 WASHING CYCLE



HYDRA 300 EXTERNAL VIAL WASHER

STRICT CRITERIA FOR DECONTAMINATION
HAVE BEEN APPLIED TO MACHINE DESIGN.



After completion of the washing cycle, vials are transferred onto the out-feed belt conveyor by means of a star-wheel. The conveyor features a perforating plastic material to guarantee **water residual drainage** during the vial drying phase.

Suction points are placed throughout the out-feed conveyor length to dry the vials bottom end during transfer to the out-feed table.



The nozzles, directly connected to the hydraulic system, are positioned in a way so as to create a water spiral around the vials removing any possible particle towards the vial bottom end; here a third nozzle placed down the water tank, assures the washing and removal of particle residues from the vial bottom end.

Grippers do not need size change over for differently sized containers, with the same cap dimension.

The change over operation just involves in-feed/out-feed strar-wheels and scroll.



The drying unit consist of nozzles wich blow compressed air at very high pressure to **remove even big water particles.**

A vacuum pump, usually placed on the technical floor, also recovers the water residual, by means of a manifold and collects it to a st. st., tank equipped with drainage valve.



HYDRA 100/300 SPECIAL EXECUTION

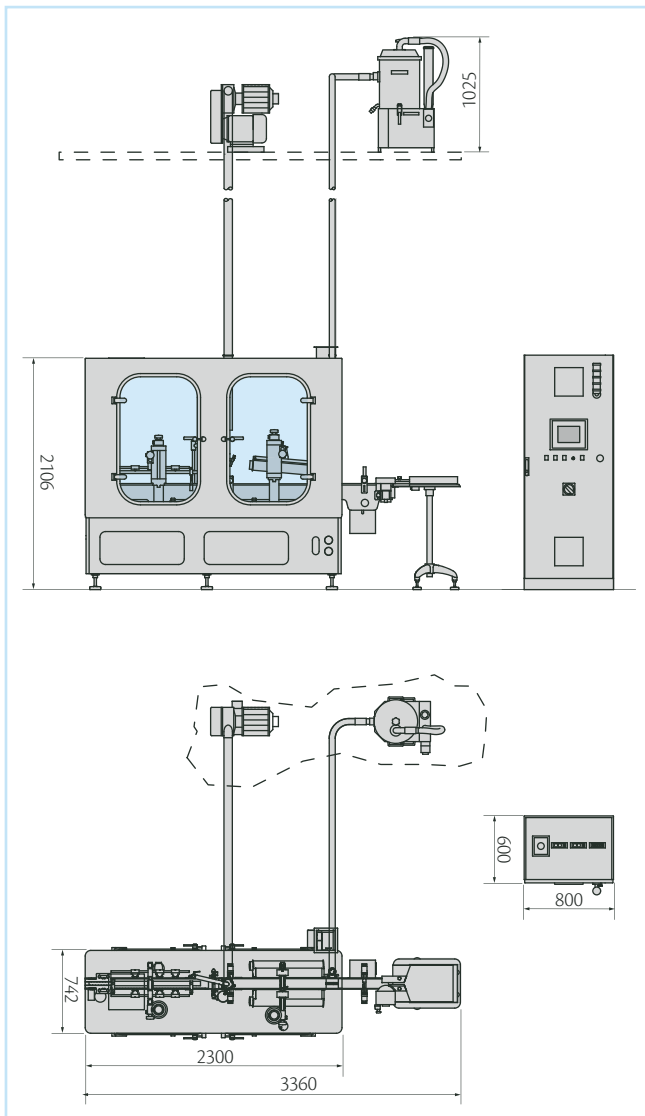
THE MACHINES CAN BE SUPPLIED WITH A CONTAINMENT SAFETY HOOD, TYPE "R.A.B.S." WITH THE POSSIBILITY OF WORKING IN OVER-PRESSURE OR IN UNDER-PRESSURE AS TO THE ZONE WHERE THE WASHER IS INSTALLED.



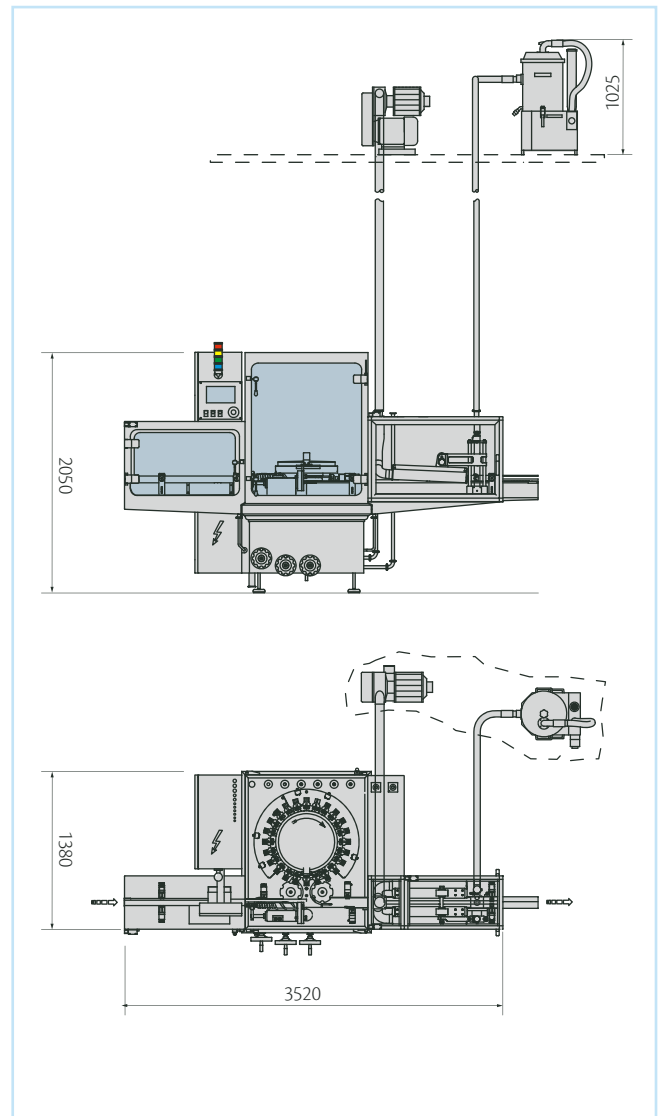
Machine in special execution under R.A.B.S.

HYDRA 100/300 TECHNICAL DATA

HYDRA100



HYDRA300



OPTIONAL UNITS FOR HYDRA 100/300

- MACHINE PRE-ARRANGEMENT FOR FITTING OF R.A.B.S. (RESTRICTED ACCESS BARRIER SYSTEM)
- AUTOMATIC WASHING OF GRIPPERS (ONLY FOR HYDRA 300)
- CONTAINER DRYING UNIT AT MACHINE OUT-FEED
- WASHING AND/OR OUT-FLOWING WATER TREATMENT (ONLY FOR HYDRA 300)
- AUTOMATIC WATER DRAINAGE
- POSSIBILITY OF SEPARATION OF THE HYDRA 300 PRE-RINSE AND FINAL-RINSE DRAINING PROCESSES.

	MIN.	MAX.
Vial diameter (mm)	14,75	60
Vial height (mm)	34,5	120
Output HYDRA 100	Up to 120 vials/min. with Ø 92 mm	
Output HYDRA 300	Up to 150 vials/min. with Ø 32-60 mm Up to 300 vials/min. with Ø 32 mm	
Installed power	5 kW	
Standard voltage	400V - 50 Hz - 3ph + N + G	

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