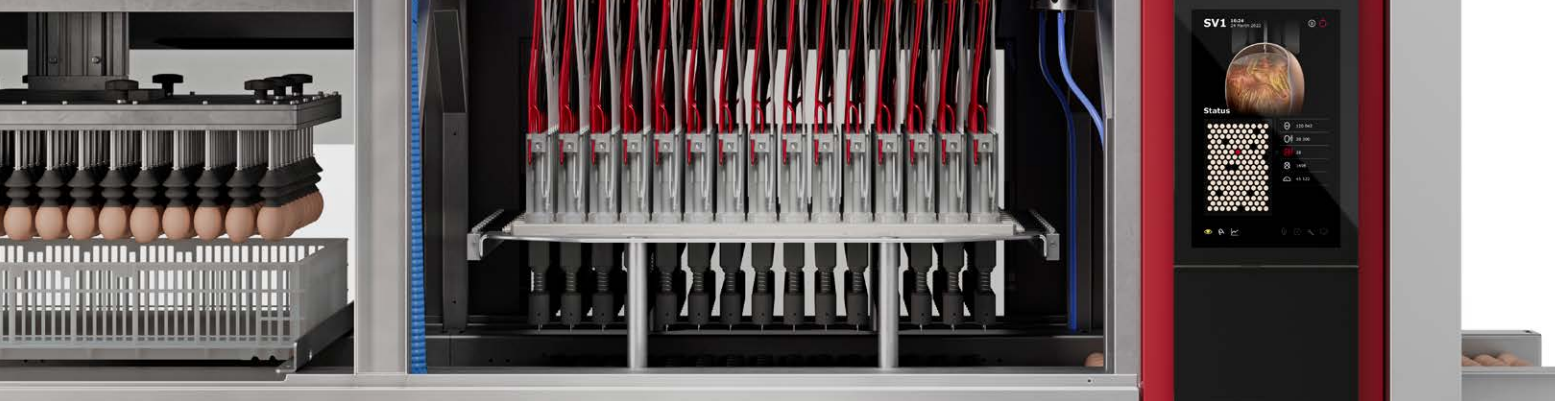


# Pas Reform SmartVac

To deliver safe and effective in-ovo vaccination  
and nutrition



**Royal Pas Reform**  
Integrated Hatchery Solutions



100% effective vaccination and nutrition

# SmartVac

## Benefits

SmartVac is a new, patented technology that allows 100% safe, consistent and accurate in-ovo vaccination and nutrition. It delivers the injectables only into the amniotic fluid, thus preventing possible injury to the growing embryo. SmartVac enables the poultry industry to apply a wide range of vaccines in-ovo, including Gumboro, Marek, ND and Coccidiosis vaccines. This is optionally performed in combination with nutritional components, for chickens with a healthy gut, favourable microbiota, enhanced immunity and thus improved field performance.

## How it works

- The injector head descends until the injector's guiding cups touch the shells of each egg in the setter tray. The injectors are not yet fixed, so that their position can be adjusted to the different egg sizes.
- Special air tubes between the injectors inflate, locking the injectors in the ideal position. The injector head then makes a second fixed, downward movement, causing the injector's outer needles to pierce the shell collectively and precisely.
- To allow automatic and individual adaptation of the injection depth to each single embryo (regardless of egg size and flock age), the inner needles in each injector then descend individually.
- The inner needle pierces the membrane and makes another controlled downward movement into the amniotic fluid.
- The Embryo Soft Touch® sensor detects the position of the embryo and the needle movement stops. Retracting slightly to avoid any injury to the embryo, the inner needle remains in the amniotic fluid.
- 100% of the injectable is delivered safely and precisely in the amniotic fluid around the embryo.
- As the injector head retracts to the starting position, a sanitisation solution flows down the needles – disinfecting the system and maintaining a sterile environment.

## Related products

- ▶ Setter trolley unloader
- ▶ Manual candling table
- ▶ Automatic candling and take-out system
- ▶ Automatic transfer system
- ▶ Egg detection system
- ▶ Empty setter tray stacker
- ▶ SmartStart™ Transfer system



## Technical Specifications

Capacity	> Up to 50,000 eggs per hour, depending on tray type and level of automation
Dosing volume	> 50 or 200 µl/egg
Installed power	> Max. 3500 W
Air consumption	> 280 litre/min at 7 bar
Air pressure	> 7 Bar
Dimensions (LxWxH)	> 3700 x 1000 x 2100 mm
User interface	> SmartSense™ interface, HMI Touchscreen 15.4"
Design	> Designed to work standalone or in line
Trays/Baskets	> Suitable for a wide variety of trays and baskets
Injector mobility	> Individual
Injection pump	> Individual, micro peristaltic pumps



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