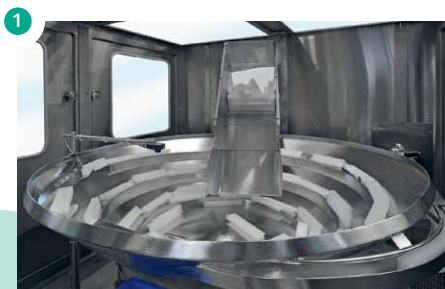
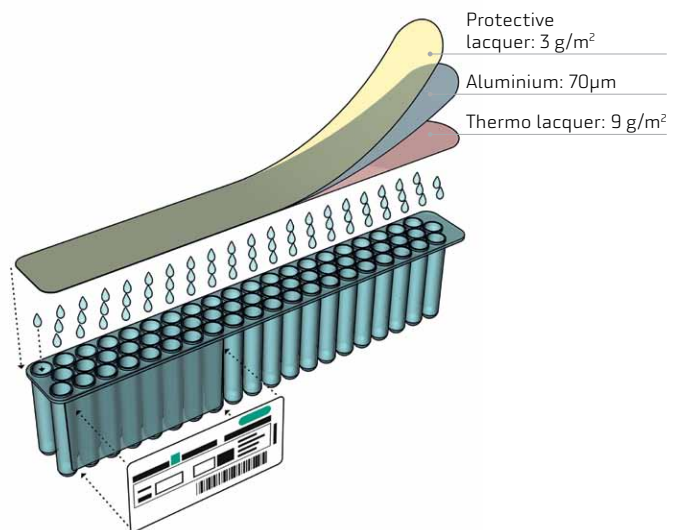


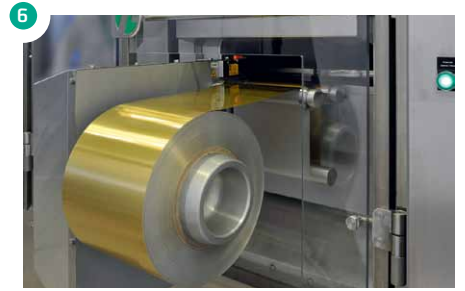
IN-VITRO-DIAGNOSTICS (IVD): DILUENT RACK FOR BLOODTESTS

Under contract with a leading company specialised in blood group serology, Rychiger developed a customer-specific machine for dosing and sealing of racks. Precise micro filling and absolute hermetic sealing are just some examples of Rychiger's technological expertise.

PROCESS SEQUENCE

The racks are delivered in bulk and sorted by an oscillating conveyor. A single-track continuous infeed conveyor feeds the racks to the pick-and-place system and synchronises them into the main unit. At the micro-filling station the individual capillary tubes are simultaneously filled with the reagent fluid - without spillage and in precise dosage. At this point the valves can be adjusted at defined intervals according to operator specifications. Even with small amounts of 100µl a tolerance of +/- 1% deviation can be maintained. An integrated CIP function allows quick product changes. The racks are then sealed with the cover film. Thanks to Rychiger's unique «One-Stroke» technology the punching and sealing are performed in a single step. Afterwards the racks are fed from the cleanroom to the discharge conveyor where they are labelled and final packed.





THE DECISIVE ADVANTAGES

Precise Filling: The 60 individual valves handle filling volumes between 100 µl and 2000 µl with the highest precision possible.

Rychiger's Leading Sealing Technology: Thanks to Rychiger's unique «One-Stroke» technology the punching and sealing are performed in a single step.

Linear-Transfersystem: This linear system features a repeat accuracy of +/- 0.03 mm.

Ergonomic Design: Easy operation and cleanability.

Cleanroom Class: ISO 7 (ISO 14644-1)

TECHNICAL DATA

Packaging Substrate: Rack with 3 x 20 Polypropylen (PP) capillary tubes, foil from roll (lacquered aluminium)

Rack Dimensions: 190 x 38.8 x 25.2 mm

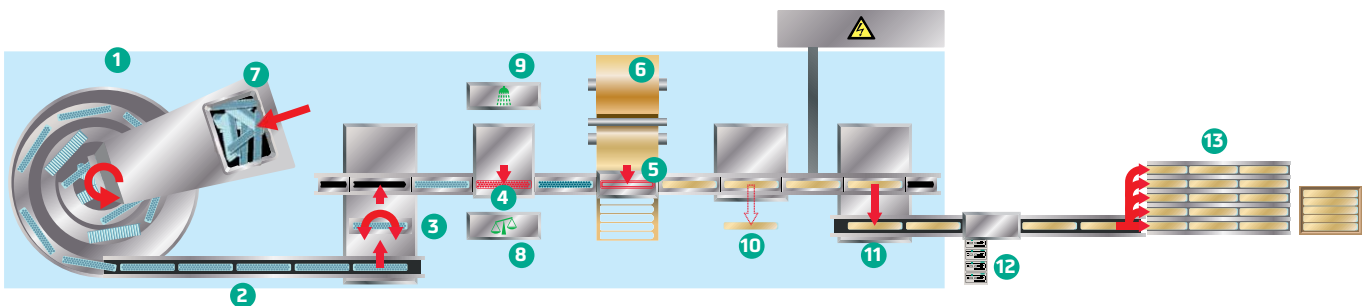
Number of Lanes: 1

Cycle Time (Cycles/Min.): 30

Control: Allen Bradley

Machine Dimensions: required space approx. 11500 x 2000 mm (incl. oscillating conveyor and final packaging)

LEGEND OPERATION SEQUENCE



- | | |
|---|---|
| 1 Oscillating conveyor | 7 Refill hopper |
| 2 Infeed conveyor | 8 Adjustment of valves |
| 3 Pick-and-Place system incl. orientation | 9 Clean in Place (CIP) |
| 4 Micro-dosing filler | 10 Defective parts rejector/Sampling |
| 5 Punching and sealing tool incl. foil handling | 11 Pick-and-Place system exit |
| 6 Unwinder | 12 Labelling system with discharge conveyor |
| | 13 Final packaging |

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