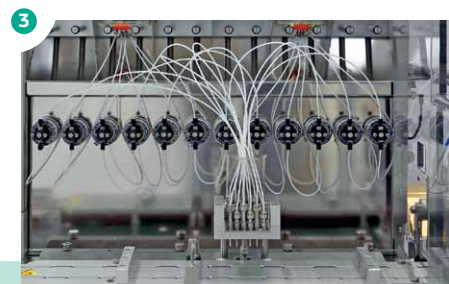
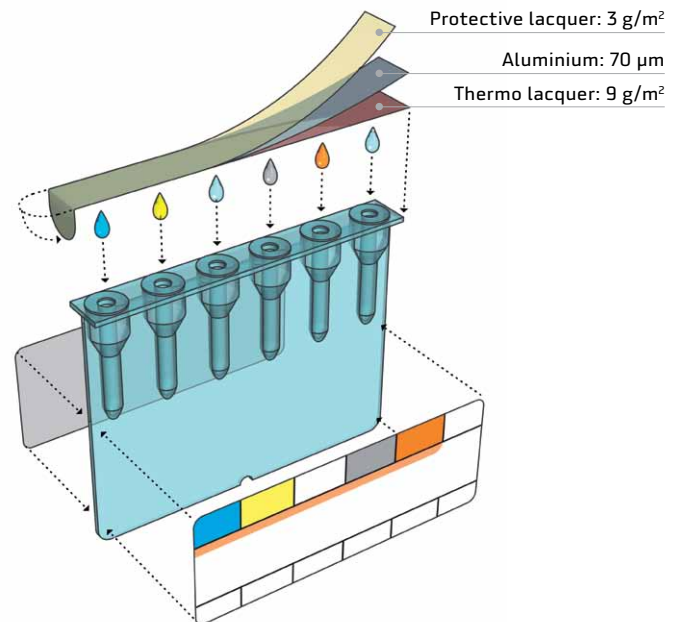


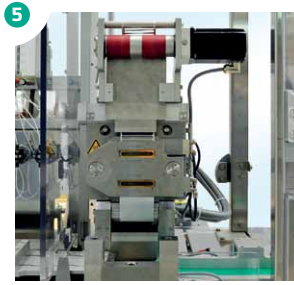
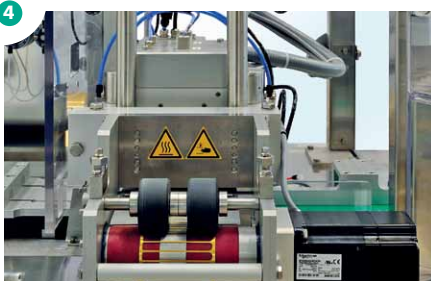
IN-VITRO-DIAGNOSTICS (IVD): ID CARDS FOR BLOODTESTS

Under contract with a leading manufacturer of medical diagnostics, Rychiger developed and produced a customer-specific filling and sealing machine. The revolutionary ID-micro typing system was designed for determining blood group and antibodies. The unique challenges: filling of the analytical gel, with a precise micro litre tolerance, into a hermetically sealed, easily peelable capillary tube.

PROCESS SEQUENCE

The cards are delivered in bulk and sorted by an oscillating conveyor. The twin-track, continuous infeed conveyor feeds the cards to the main station and synchronises them with the transport system. At the filling station rotary piston pumps are filling the individual capillary tubes with up to six different analytical fluids – without spillage and in precise dosage. The cards are then sealed with the cover foil. Thanks to Rychiger's unique «One-Stroke» technology, the punching and sealing are performed in a single step. The cards are then merged from two lanes to a single lane discharge conveyor where they are labelled.





THE DECISIVE ADVANTAGES

Precise Filling: The station handles filling volumes at 30 µl with the highest precision possible.

Rychiger's Leading Sealing Technology: Highest seal integrity with the best peel ability.

«Walking-Beam»: This linear transport system without a chain or timing belt minimises risk of contamination.

Multiple Fill Goods: Up to six different analytical fluids can be utilized.

Ergonomic Design: Easy operation and clean ability.

Cleanroom Class: ISO 7 (ISO 14644-1)

TECHNICAL DATA

Packaging Substrate: ID Card of PP, foil from roll (lacquered aluminium)

Card Dimensions: 70 x 9 x 53 mm

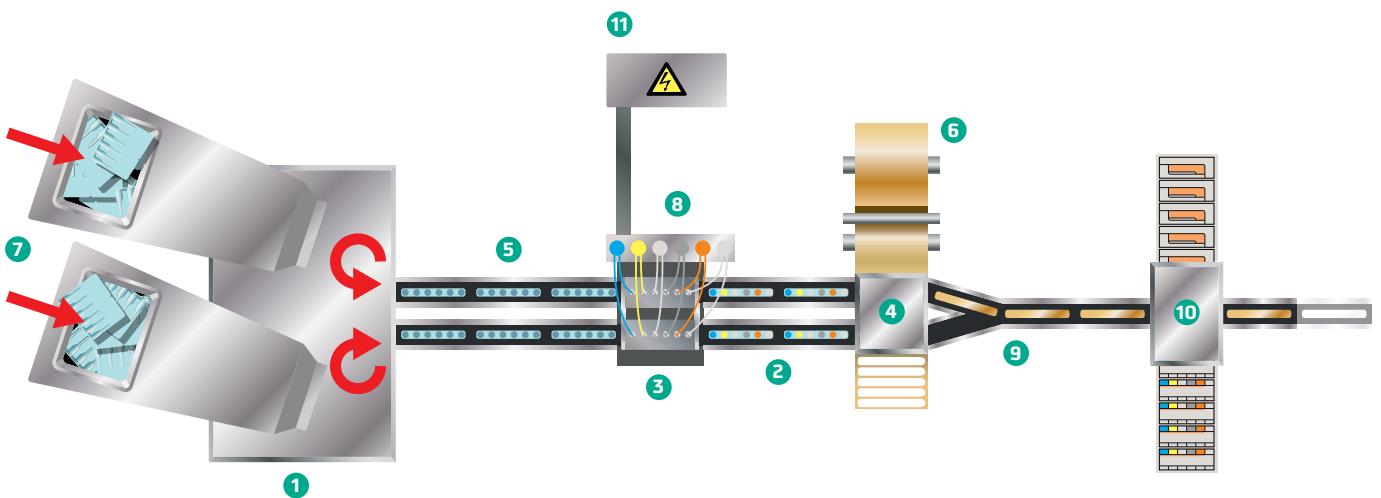
Number of Lanes: 2

Cycle Time (Cycles/Min.): 40

Control: Allen Bradley

Machine Dimensions: approx. 8000 x 3800 mm (incl. control cabinet and oscillating conveyor)

OPERATION SEQUENCE



- | | |
|--|---|
| 1 Oscillating conveyor | 6 Unwinder (cover film on roll) |
| 2 Main station (master shaft with cam discs and machine accessories) | 7 Hopper |
| 3 Rotary piston pumps and filling nozzle | 8 Reagents in bulk (6-line) incl. agitator and pumping system (12-line) |
| 4 Punching and sealing tool incl. foil handling | 9 Flip-flop system incl. single-lane discharge conveyor |
| 5 Punching and sealing tool tilted up, maintenance and cleaning position | 10 Labelling system |
| | 11 Free-standing electrical cabinet |

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