

All-In-One Series

**idm automation**
A MEMBER OF ILPRA GROUP

All-In-One Series

DESCRIPTION

Automatic technological solution intended to fill bottles composed by different materials. Machinery designed to fill and close bottles of heterogeneous shape and characterised by versatility of use, both in make-up, skin care and hair care. Solution characterised by removable and interchangeable bushing holders at size changeover. The solution can be customised by adding the modules for the production and the level of automation required.

APPLICATION and CONSUMER OUTPUT

Make-up - Eyes, Face, Lips
Skin Care - Face, Body
Hair Care and colour



TECHNICAL FEATURES

- Productivity: up to 4800 pcs/h
- Supported Formats:
 - Ø 10 mm – 45 mm
 - L 35 mm – 110 mm
- Internal volume 1/60 mL

ADVANTAGES

- Parts in contact with the product made of stainless steel AISI 316
- Extreme metering precision
- Production flexibility thanks to immediate format change
- Ergonomic design for the maximum comfort for operators during processing
- Control the access from a single interface with self-diagnostic functionality and intuitive operator support
- Accessibility improved, high product visibility, maintenance and cleaning operations
- Security guaranteed by 5 mm + 5 mm toughened and laminated glass
- Reliability of a robust construction for low maintenance and long service life
- Simplicity of control thanks to management systems, facilitated mechanical procedures and dedicated software
- Premium Partnership with Mitsubishi, Keyence, Festo

OPERATIONAL SEQUENCE

1. BOTTLES LOADING STATION

Bottle loading in semi-automatic or automatic mode

2. DOSING STATION

Precision dosing by volumetric system with unheated or heated dosing head with temperature controlled by operator panel, for products of different viscosities. Dosing with motorised pump controlled by brushless servo-motor and dosing cylinder (available in four volumes D.10, D.20, D.25, D.32) made of Aisi 316 stainless steel and FDA-compliant. Dosing speed and volume can be set from operator panel. Different types of hoppers available: heated, unheated and with different agitation modes (by rotating stirrer or screw stirrer) and volumes 5L, 8L, 30L. Possibility of adding an immersion bulk feed pump with sensor

3. WIPER LOADING STATION

Picking up and inserting the wiper into the bottle. Complete with circular electromagnetic vibrator for orderly wiper feeding. Adjustable sides at changeover

4. BRUSHES LOADING STATION

Brush loading in semi-automatic or automatic mode with robot or pick-and-place. Possibility of three types of feeding on linear vibrator: manual, by vibrating cup or fully automated

5. SCREWING STATION

Pneumatic clamp with three self-centring fingers set in rotation by a brushless servo motor with torque and speed control (settable from the operator panel)

6. BOTTLES UNLOADING STATION

Station equipped with two pneumatic clamps moved vertically by a pneumatic cylinder. Clamps rotation unit driven by brushless servo motor completed by pneumatic air distributor. The clamps pick up the bottle from the rotary table bushing and place it in three different exit positions:

- Valid parts;
 - Invalid parts due to missing brush or unscrewed brush;
 - Invalid parts due to missing wiper;
- The parts are unloaded onto an exit belt

INSIGHTS

Fully semi-automatic or full-electric version available:

All-In-One MF-120 designed to fill and close the same type of bottles on a smaller size and scale. Consisting of a 12-position rotary table with anticorrosive disc with removable and interchangeable bushing holders at format change. Ideal for small production batches and for the scale-up process.

All-In-One MF-302 designed to fill and close bottles composed by different materials and shape. Consisting of a 30-position rotary table with anticorrosive disc with removable and interchangeable bushing holders at format change. Customisable by adding the modules for the production and the level of automation required, from semi-automatic to full-automatic.

All-In-One e-MF-302 PURE designed to be enriched with a series of plus: higher performance, more environmentally friendliness, allowing great energy savings, extremely quiet, ensuring great working comfort. This solution can be configured and customised by adding the necessary options for your production.

All-In-One MF-604 designed to achieve impressive speeds of up to 80 ppm featuring two pieces per cycle for maximum output. Fully automatic operation: seamlessly handle the entire process from bottle filling to wiper insertion to brush placement. Exceptional performance and reliability.

PERFORMANCES	SAVING	WELL-BEING
Speed and setting accuracy at changeover	Lower direct maintenance and user costs	Reduced noise impact and ergonomic workstation
Accuracy and certainty of movement through the use of controlled axes	Absence of purchase and maintenance costs for air compressors of related equipment	Respect for the product and the environment by not using compressed air
Easy replacement of dispensing head requiring no tools	Easy cleaning thanks to the use of mirror-polished stainless steel and glass covers	Workstation ergonomics and operator comfort

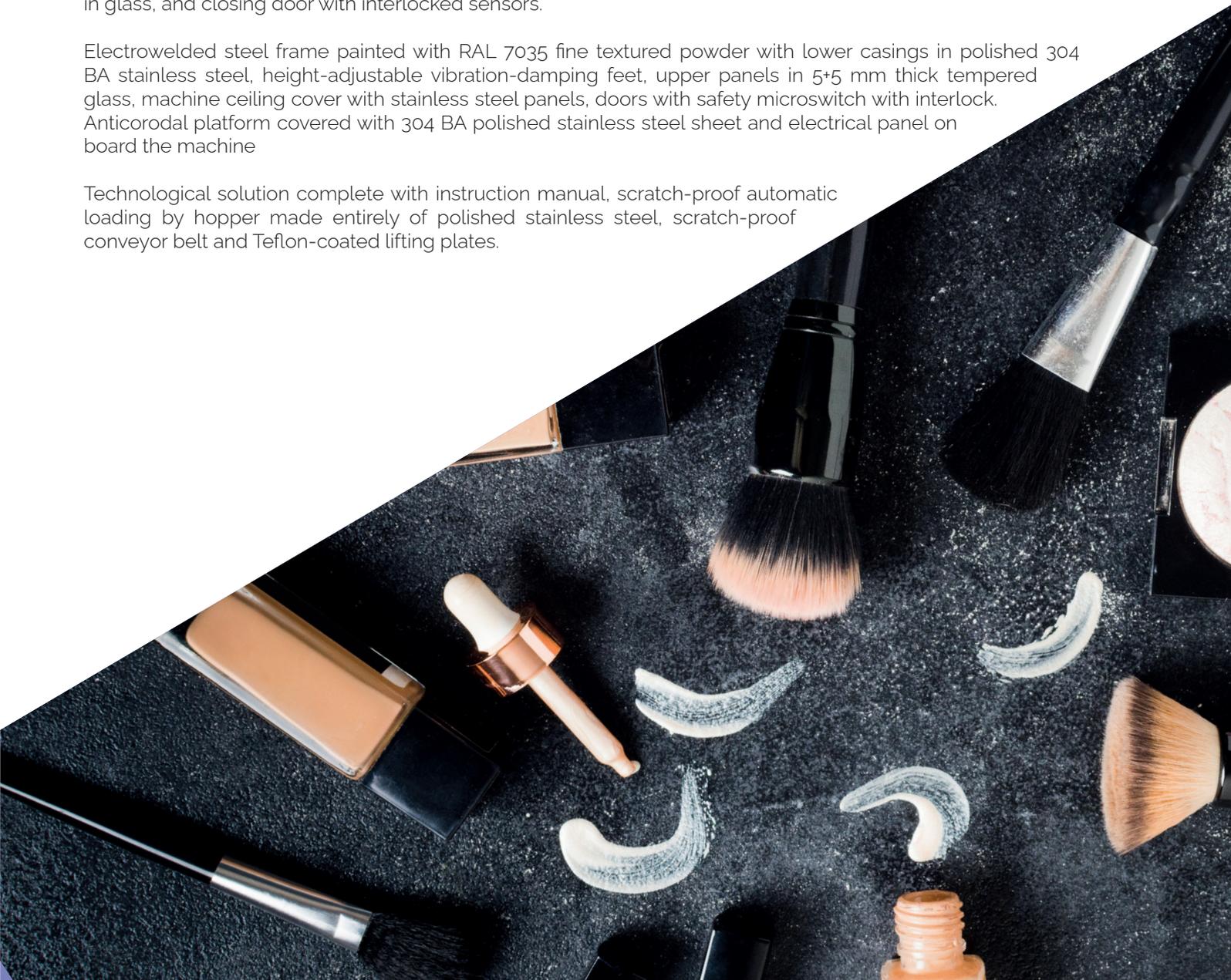
Availability to add external modules:

T-150-UF | T-030-DR | T-080-DF (150 L - 30 L - 80 L capacity melters). Equipped with the following features: heated with band electrical resistors, manually removable sealing lid with "lid in position" control sensor.

PM 15-100 (Pressure Tank) designed to bring high viscosity bulk to the bottle filling machine according to desired quantity and flow. 100 L pressure tank. Equipped with the following features: plate diameter designed for Ø 450 mm tank, possibility of frontal extraction of the tank on wheels. Vertical movement through a pneumatic cylinder for raising and lowering of the pressing plate in AISI 316 stainless steel, base with stainless steel platform and side closing guards, with panels for internal visibility in glass, and closing door with interlocked sensors.

Electrowelded steel frame painted with RAL 7035 fine textured powder with lower casings in polished 304 BA stainless steel, height-adjustable vibration-damping feet, upper panels in 5+5 mm thick tempered glass, machine ceiling cover with stainless steel panels, doors with safety microswitch with interlock. Anticorrosive platform covered with 304 BA polished stainless steel sheet and electrical panel on board the machine

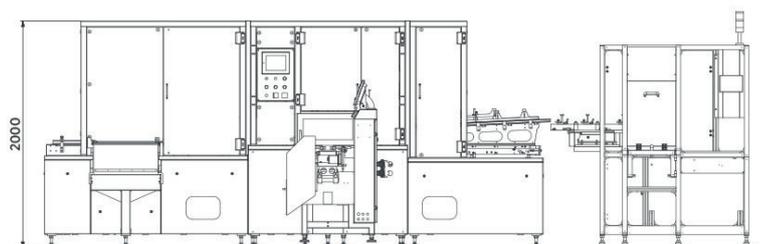
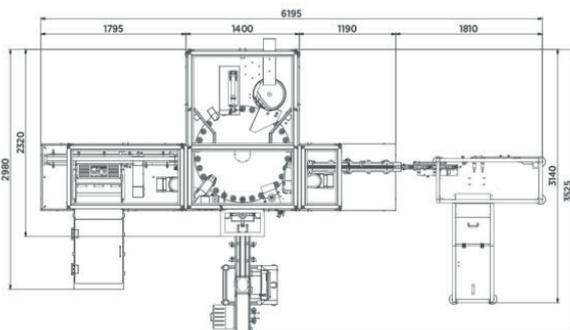
Technological solution complete with instruction manual, scratch-proof automatic loading by hopper made entirely of polished stainless steel, scratch-proof conveyor belt and Teflon-coated lifting plates.



CONFIGURATION



- Bottle loading station
- Bottle presence check station
- Doser connected to heated or unheated hopper or pressure tank
- Wiper loading station
- Insertion and wiper presence check
- Cap or brush loading station
- Cap or brush screwing with clamps
- Valid bottle unloading station
- Invalid bottle unloading station (due to missing brush or incorrectly screwed and/or missing wiper)





IDM Automation Srl

Via Oroboni 6, Vigevano (PV) ITALY

+39 0381 81887 - info@idmautomation.it - www.idmautomation.it

