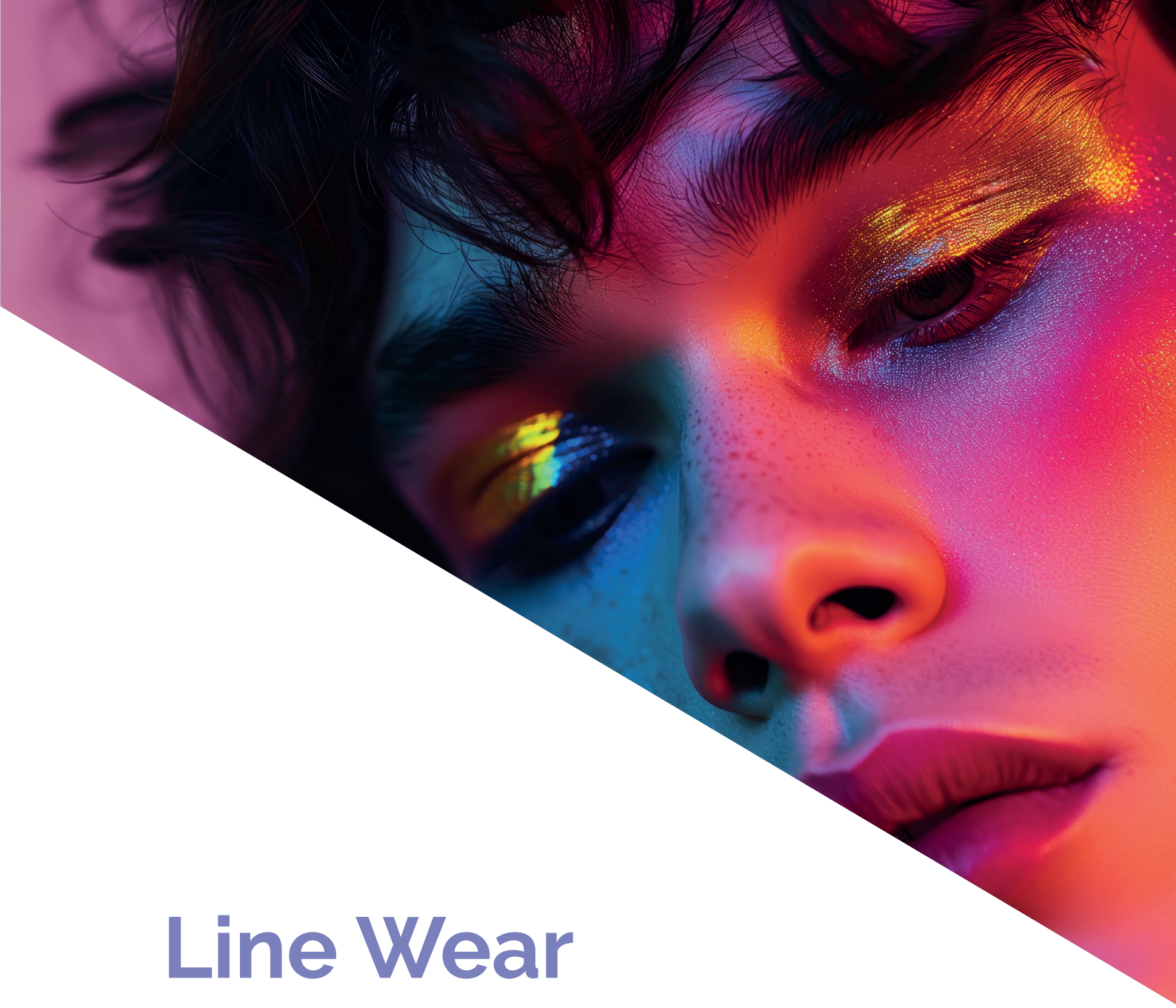

Line Wear
MM-6-DT

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Line Wear MM-6-DT

DESCRIPTION

Automatic technological solution intended for produce automatic pencils. Solution equipped with a 60-position rotary table and a mould heating and cooling tunnel. The system processes six pencil leads simultaneously and automatically inserts them into the pencil bodies. Loading and unloading process takes place through a scara robot.

APPLICATION and CONSUMER OUTPUT

Make-up Eyes, Face, Lips

TECHNICAL FEATURES

- Productivity: up to 3000 pieces/h
- Supported Formats:
  Ø 3 mm – 6 mm

ADVANTAGES

- Parts in contact with the product made of AISI 316 stainless steel
- Extreme dosing precision with ultra-fine retractable pencil leads
- Better pay-off, creamier, intense, and long-lasting texture
- Better consistency and higher breaking strength
- 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. **PENCIL BODY LOADING STATION**
   60-position rotary table driven by brushless motor. The rotation and dwell times of the table are manageable from the operator panel; this makes it easy to manage the time the moulds remain in the cooling and heating tunnels.
2. **HEATING STATION**
   Hot air heating tunnel controlled and managed by a thermocouple located inside it. The temperature is adjustable directly from the operator panel. The entry and exit of the moulds from the tunnel are regulated by the opening and closing of dampers that help to mantain a constant temperature.
3. **FILMING STATION**
   Internal mould filming by applying a thin layer of silicone over the entire surface, the homogeneous distribution is achieved by the repeated vertical pin movements. The silicone is contained in a tank with level sensor.
4. **PENCIL LEADS PRODUCTION STATION**
   Six vertical pumping units driven by a brushless motor that adjust speed and quantity. The product is sucked from the pumping units (Ø 6 mm) by an external melter whose temperature is managed by a thermocouple and adjustable from the operator panel. The melter is equipped with a product agitation blade. During the regular working cycle, a three-way valve puts the pump in communication with the dosing nozzle. During the stop-machine phase, the three-way valve connects the pumping unit with the melter for continuous recirculation of the product. The dosing (injection) phase begins when the nozzle is fully inserted into the mould and the end of the nozzle is near the end of the pin (having the shape of a pencil point). Dosing continues as the nozzle rises towards the exit of the mould.
5. **PENCIL LEADS COOLING STATION**
   Mould cooling tunnel with cold air from a double refrigerator in alternating operation. When the refrigerator in operation starts the defrost phase, the stand-by phase is activated, and the parallel refrigerator runs until the next phase reversal. The operating temperature of the refrigerator is -40°C and allows a temperature of -20°C to be maintained inside the tunnel. The entry and exit of the moulds from the tunnel are regulated by the opening and closing of dampers that prevent the dispersion of cold air outside the tunnel and facilitate the maintenance of a constant temperature.
6. **PENCIL LEADS CUTTING STATION**
   A unit for cutting the excess material from the end-edge of the pencil leads. Cutting is performed by a blade moved by a pneumatic cylinder. The cut waste is sucked into a recovery tank.
7. **PENCIL LEADS TRANSFER INTO PENCIL BODY STATION**
   Pencil leads transfer into the pencil body by a pin vertical movement that slide vertically inside the moulds and insert the lead into the internal mechanism of the pencils. The positioning of the pencils above the moulds and in line with them is done by a scara robot that picks up the pencils from a six-track conveyor. The pencils are initially positioned by an operator inside a hopper with a conveyor belt made of scratch-resistant material. Plates elevator system and a second scara robot orient the pencils and position them on the 6-track conveyor.
8. **AUTOMATIC PENCILS UNLOADING STATION**
   The pencils are unloaded by the same robot that previously assembled the pencils.

INSIGHTS

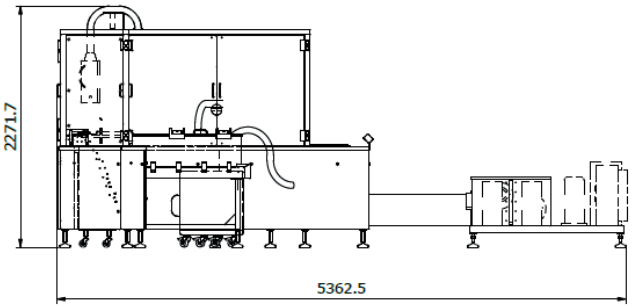
- Electrowelded steel frame painted with RAL 7035 fine textured powder with lower casings in 304 BA polished stainless steel, height-adjustable vibration-damping feet, upper panels in 5+5 mm thick tempered glass, machine ceiling cover and doors with safety microswitch with interlock

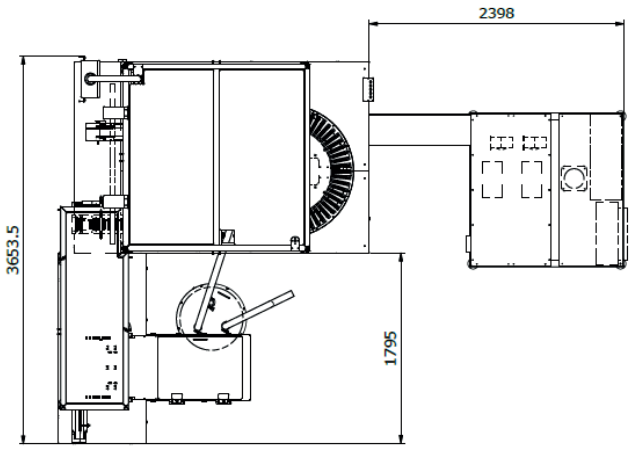
- Anticorodal platform covered with 304 BA polished stainless steel sheet, electrical panel located on the machine

- Machine conforms to regulations, complete with instruction manual

CONFIGURATION

- Pencil body loading station
- Heating station
- Filming station
- Pencil leads production station
- Pencil leads cooling station
- Pencil leads cutting station
- Pencil leads transfer into pencil body station
- Automatic pencils unloading station





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