Inline Production System for 3D Parts

Environmentally Friendly and Cost-effective Coating Process

In order to apply the copper functional layers in a vacuum, SINGULUS TECHNOLOGIES offers a fully automated production line with appropriate throughput. The basis of such a production line is the vacuum coating machine POLYCOATER, which works on the principle of cathode sputtering. The complete production line under the name DECOLINE II integrates vacuum metallization and automatically transports the parts to defined transfer positions.



Green

Metallizing



free













Chrome (VI)-

Cost **Effective**

Reliable **Process**

Sustainable **Process**



POLYCOATER 68

The POLYCOATER is an inline vacuum sputtering production system for the fully automatic coating of 3-dimensional plastic parts.

Production cycle time: down to 6 seconds per carrier

- 1 Substrate per carrier: 480 x 130 x 68 mm
- **6 Substrates per carrier:** Ø 68 x 130 mm
- 9 Substrates per carrier: Ø 32 x 130 mm
- 18 Substrates per carrier: Ø 22 x 130 mm

SUBSTRATE SIZES Diameter: 68 mm

Height max.: 130 mm

POLYCOATER 90

The POLYCOATER is an inline vacuum sputtering production system for the fully automatic coating of 3-dimensional plastic parts.

Production cycle time: down to 10 seconds per carrier

- 1 Substrate per carrier: 480 x 130 x 90 mm
- 4 Substrate per carrier: Ø 90 x 130 mm
- **6 Substrates per carrier:** Ø 68 x 130 mm
- **9 Substrates per carrier:** Ø 32 x 130 mm
- **18 Substrates per carrier:** Ø 22 x 130 mm

SUBSTRATE SIZES Diameter: 90 mm Height max.: 130 mm

DECOLINE | Compact

DECOLINE II Compact for medium volume production automates the production process while considerably reducing costs, logistical efforts as well as the personnel intensity and therefore yields a return on investment in a very short period of time. For quantities up to 4,800 p/h*.

Metallizer yield: > 95 % **Breakage:** < 0.2 %* **Uptime:** > 95 %* Length: approx. 4.0 m Width: approx. 4.0 m Height: approx. 3.8 m

* depending on process

DECOLINE |

DECOLINE II for high volume production automates the production process while considerably reducing costs, logistical efforts as well as the personnel intensity and therefore yields a return on investment in a very short period of time. DECOLINE II automates the production process offering a throughput of up to 10,800 p/h*.

Metallizer yield: > 95 % Breakage: < 0.2 %* **Uptime:** > 95 %* Length: approx. 18.0 m Width: approx. 11.0 m Height: approx. 3.8 m

* depending on process

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Sustainable **Coating of 3D Parts** for Medical **Applications**

Reliable Inline Production Systems





Inline Production System for 3D Parts

DECOLINE & POLYCOATER

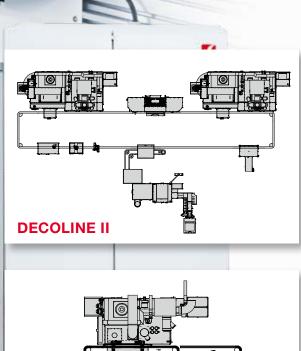
GREEN METALLIZING

Inline Production System for Sustainable Coating of 3D Parts for Medical Applications

Certain frequently used surfaces such as door handles, elevator buttons, shopping trolley handrails and light switches as well as masks pose a considerable risk of transmission of bacteria, viruses and fungal cultures. One way to reduce the risk of infection – for example by MRSA (methicillin-resistant Staphylococcus aureus, so-called "hospital bacteria") and E. coli bacteria – lies in the use of specially coated products with a permanently antibacterial and antiviral surface. This method is available immediately and is especially helpful in times of the COVID-19 pandemic to prevent dangerous infections.

Copper surfaces inactivate a variety of bacteria, viruses and fungi in a process known as contact killing. Copper-containing alloys are ideal for surfaces and objects that are frequently touched, as copper is able to greatly reduce MRSA bacteria between regular cleanings. The copper alloy applied through coating in a vacuum makes use of a natural interaction between the cell wall membrane and simple organisms such as viruses or bacteria.





SINGULUS

