

Technical Data Sheet Silicone Coating Station

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Coating Station for the high-precision application of silicone coatings

The Maan Silicone Coating Station is a premium station for the application of silicone on flexible materials, such as paper and foil. The station is the basis of the Maan Coating Lines, but may also be integrated as a station in a printing or converting line. Process control and coating quality were the key starting points for development of this machine. In the Silicone Coating Station, the anilox roll applies the silicone from the doctor chamber to the coating roller at precisely the right thickness. The coating roller then applies the silicone to the substrate.

Separately driven rollers

The rollers in the Silicone Coating Station are driven independently of one another by Lenze servo motors. Controlling the speed of the rollers independently and mutually calibrating them allows the silicone coating to be applied with extreme precision. The roller system ensures the optimal distribution of the silicone, thus avoiding pinholes. The temperature of the rollers is regulated and controlled meticulously throughout the process.

Curing in inert chamber

After the silicone coating has been applied to the substrate, the web enters the inert chamber. The curing of the silicone takes place in the inert chamber using UV. This curing process is crucial for proper hardening of the silicone and ensuring a high-quality release layer. Oxygen levels in the inert chamber, at below 50 ppm, are monitored constantly. This results in top-quality curing and optimised nitrogen use.

Sleeve technology and 5 rollers

The coating roller in the Silicone Coating Station may be optionally fitted with a sleeve system. This system allows sleeves of different widths and patterns to be easily mounted and swapped on the coating roller. When thinner coating weights are required, you may opt for a 5-roller Silicone Coating Station. These five individually driven rollers create a thinner and more precise coating layer.



SPECIFICATIONS

Technical overview	SCS530	SCS660
Coating width (mm)	530	660
Coating weight (gr/m2)	0,9 - 1.2*	0,9 - 1.2*
Web speed (m/min)	150	150
Curing	UV inert curing (1x 200W/cm)	UV inert curing (1x 200W/cm)
Number of rolls	3	3
Oxygen in inert chamber	< 50 ppm**	< 50 ppm**

*Depending on materials and type of silicone

**Depending on materials



Anilox roller and coating roller



Control system for Silicone Coating Station



Inert chamber with UV lamp for curing



Functioning Silicone Coating Station



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