

N4S-S2S high speed linear coating and drying line

Coating and drying process optimization trials can often not be run directly on production lines due to cost reasons. With this in mind, FMP developed a small and compact fully automatic pilot plant for the customer, enabling the application of single sheets via curtain coating at substrate speeds of up to 250 m/min. This enables the fast introduction of process improvements without requiring long development times at the large-scale plant. Likewise, sample coatings can be produced quickly, efficiently and cheaply in small quantities.

In-house technologies of FMP were incorporated into the production plant. All components were specially designed to meet the customer's needs. The distribution system within the FMP slot-die is chosen from a large number of different geometries and sizes to achieve the best possible uniformity of the applied medium. For drying, FMP relies on its patented impingement-free convection drying technology. The unique selling point of this technology is, that it does not use an impingement jet and yet achieves drying rates at least as high as those of conventional dryers, resulting in a much gentler drying process. Conventional drying systems can also be installed on request.

With such a laboratory system, developments or further improvements, for example to introduce new technologies such as curtain coating, can be tested and optimized in detail on a very small scale. If the transition to the large-scale plant is ultimately made, a well-founded knowledge from the experiments can be used to guarantee a fast introduction of the new process technology with minimal development times.



Your Advantages:

1. Optimize your manufacturing process without disrupting production
2. Flexible, customer-specific design
3. Innovative FMP slot-die coating and drying system technology

Technical data

Plant length:	3 – 10 m depending on configuration
Conveyor velocity:	0 – 250 m/min
Plant weight:	~3000kg
Coating:	
Slot-die:	Type: Infinity Width: Up to 500mm Cross-web uniformity +-1%
Method:	Curtain-coating
Medium:	All kinds of solids dissolved in water or solvents
Substrate:	Sheet material of all materials up to 500mm x 1000 mm
Coating surface:	
Options:	Feeding system Mixing system Degassing system
Drying:	
Heating:	Electrical
Drying system:	Patented impingement-free drying Impingement drying IR-drying