

FlexCo – the new machine generation

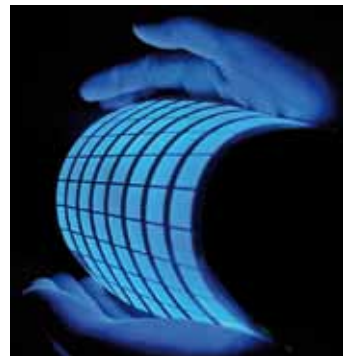
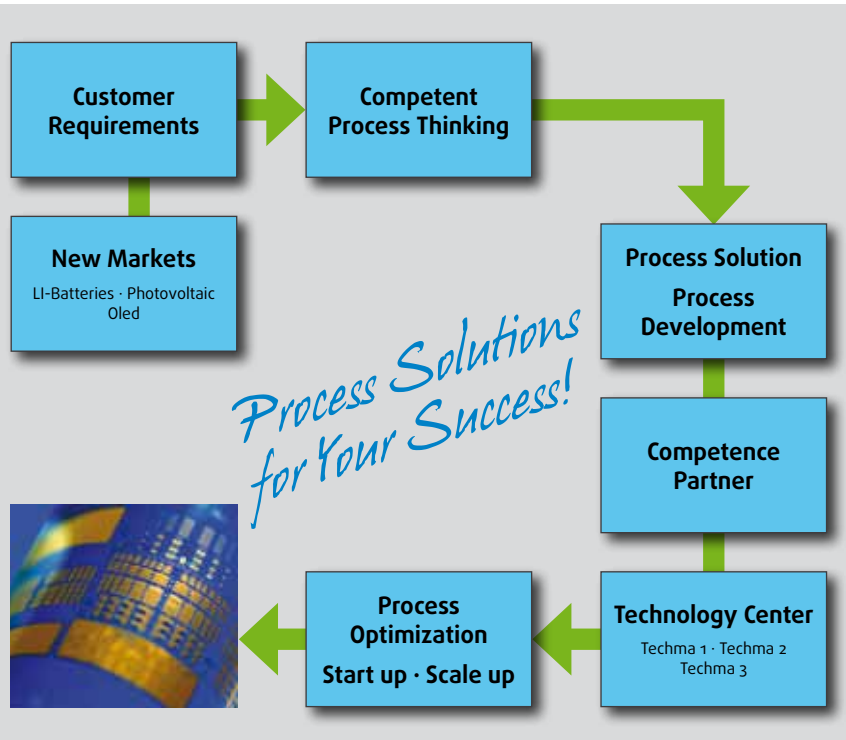
wifag-polytype group – brilliance on top



The flexible system for research, development and production.

High-performance solution for your development and production requirements

2



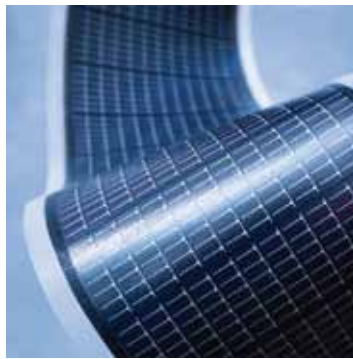
We are a global supplier of coating technology and coating equipment for the surface finishing of all kinds of flexible substrates.

Our activities are geared first and foremost towards our customers and their products.

As a leading technology provider in our segment, we develop holistic solutions that meet the requirements of our customers for product quality, productivity and optimized product costs.

Polytype Converting AG is part of the wifag//polytype Group, allowing us to benefit from a broad technology base.

- // Modular design offering unlimited flexibility
- // Industrial manufacturing processes
- // Highly precise coating and laminating
- // Efficient drying and curing
- // Small quantities of raw materials



The FlexCo system is primarily geared towards high-end products such as:

- // Organic electronics
- // Photovoltaic cells
- // Organic lighting and signage
- // Electrodes for batteries
- // Pharmaceuticals
- // Smart packaging
- // Optical security features

The FlexCo system is based on a modular design concept. It offers unlimited flexibility for converting processes without compromising on the core tasks of coating, drying and laminating. The key applications focus on the development of formulations for new and emerging products, which can be carried out with industrial manufacturing processes on a semi-industrial scale and with small raw material quantities. It is also possible to optimize converting processes for customer-specific operating conditions and short production runs.

High precision, top performance – flexibility down to the last detail

4

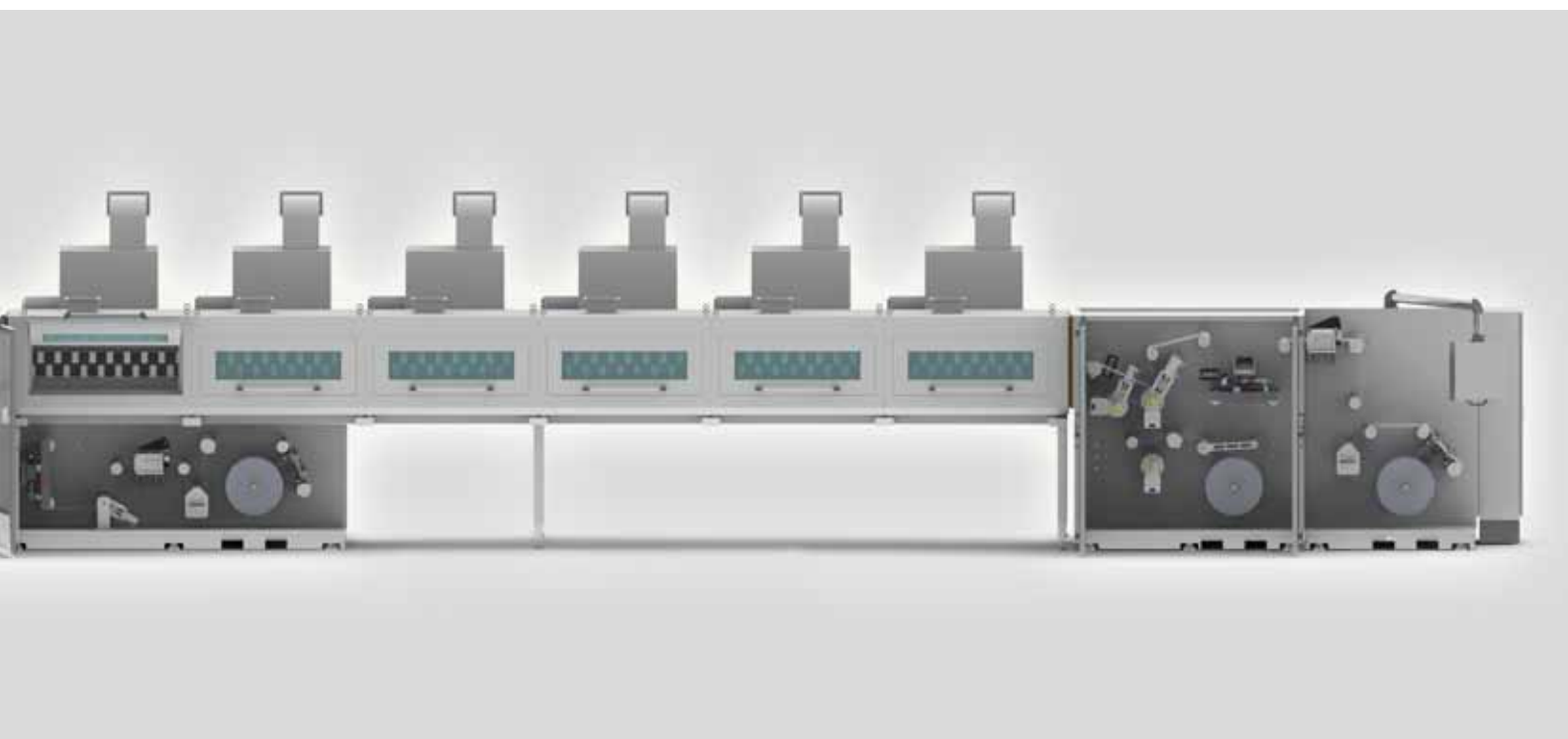


FlexCo is compact, modular and flexible. Its cantilever design ensures quick and easy access to all machine components. It can coat all web-type materials with a width of up to 500 mm.

The standard scope of delivery includes an unwinder, edge controller, coating station, dryer and rewinder. It can be expanded to include the following options:

- // Corona station
- // Web cleaner
- // Cooling station
- // Laminating station
- // Digital printing module
- // EB systems
- // UV systems

- // Extremely flexible system
- // Compact and modular design
- // Precise coating stations
- // High-performance support roll and air flotation dryers



Specifications

Web speed	m/min	0.1-100
Web width	mm	≤ 500

Winders

Main unwinder , roll diameter	mm	500
Operating mode		stop and go
Core inner diameter	mm	70,76,150

Main rewinder , roll diameter	mm	500
Operating mode		stop and go
Core inner diameter	mm	70,76,150

Tertiary unwinder for dry laminating	mm	500
Operating mode		stop and go
Core inner diameter	mm	70,76,150

Splice type		manual
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Web tension

Unwinder	N	30 - 500
Rewinder	N	30 - 500

Dry lamination

Max. cylinder temperature	°C	140
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Corona treatment

Max. power for coating and laminating	kW	3
Max. power for laminating	kW	3

Solidification

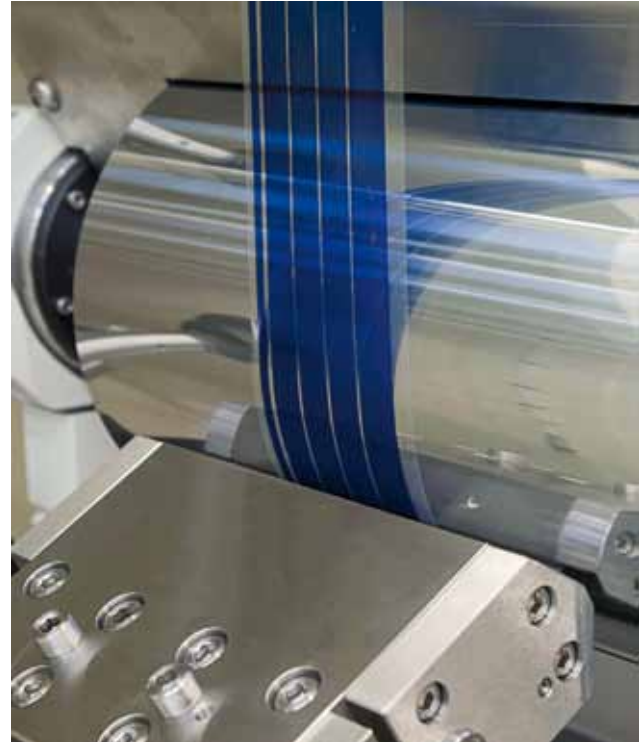
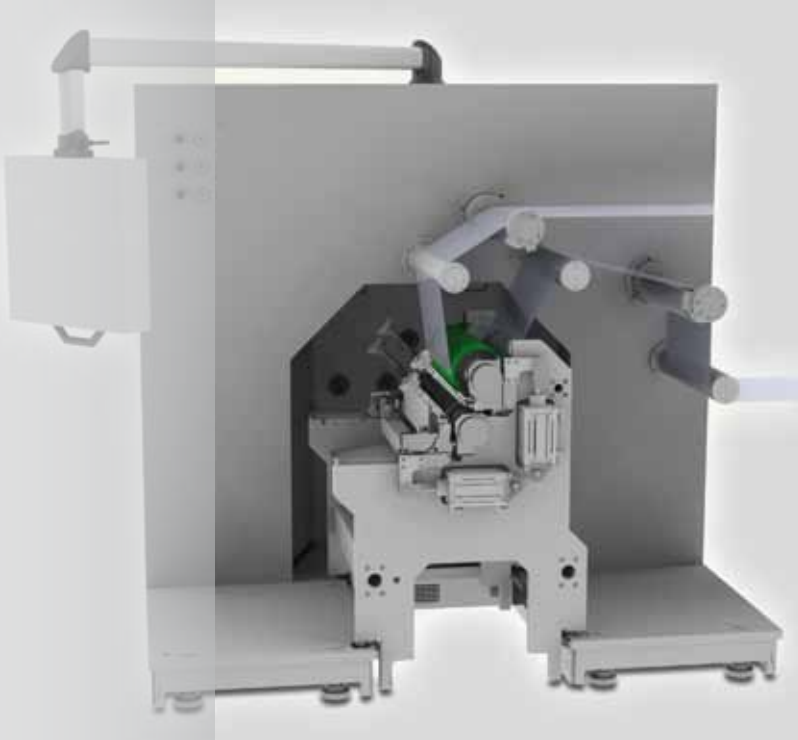
Thermal drying and curing

Principle	evaporation by hot air	
Design	flotation or support roll	
Number of zones	as needed	
Zone length	m	1,5
Air speed	m/s	10 - 30
Air temperature	°C	40 - 250

FlexCo coating methods

- // Smooth roll systems
- // Gravure roll systems
- // Slot die systems
- // Digital printing
- // Intermittent coating
- // Stripe coating

6

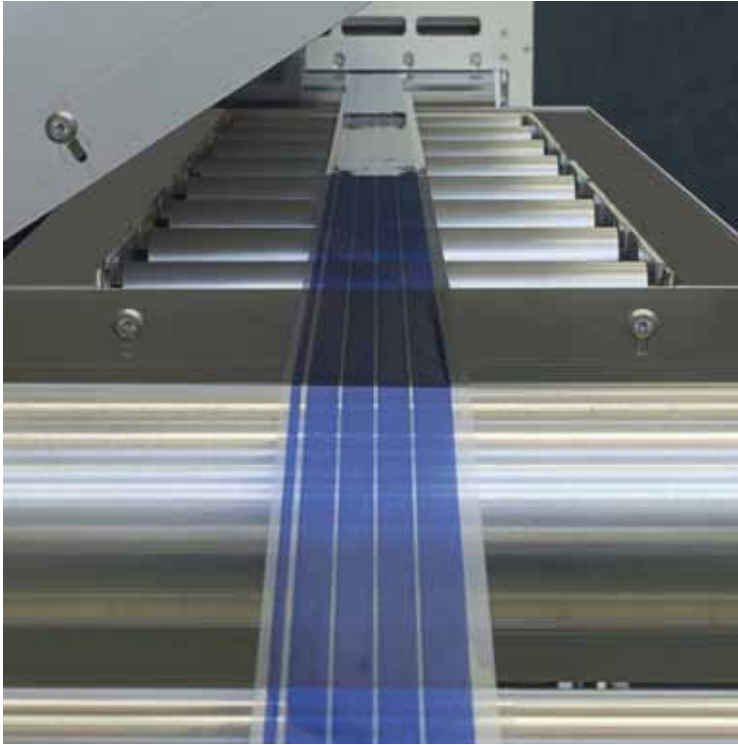


The FlexCo system can be equipped with coating systems with offset gravure rolls, flat rolls, comma doctor blade and slot die. All coating stations are highly precise, and the results achieved can be reproduced on production systems. Coating stations can be changed quickly and easily.

The system enables the application of solid, intermittent and stripe coatings. Special functions can be achieved by means of digital printing methods.

Drying methods

- // Support roll dryer
- // Air flotation dryer
- // Various heat sources



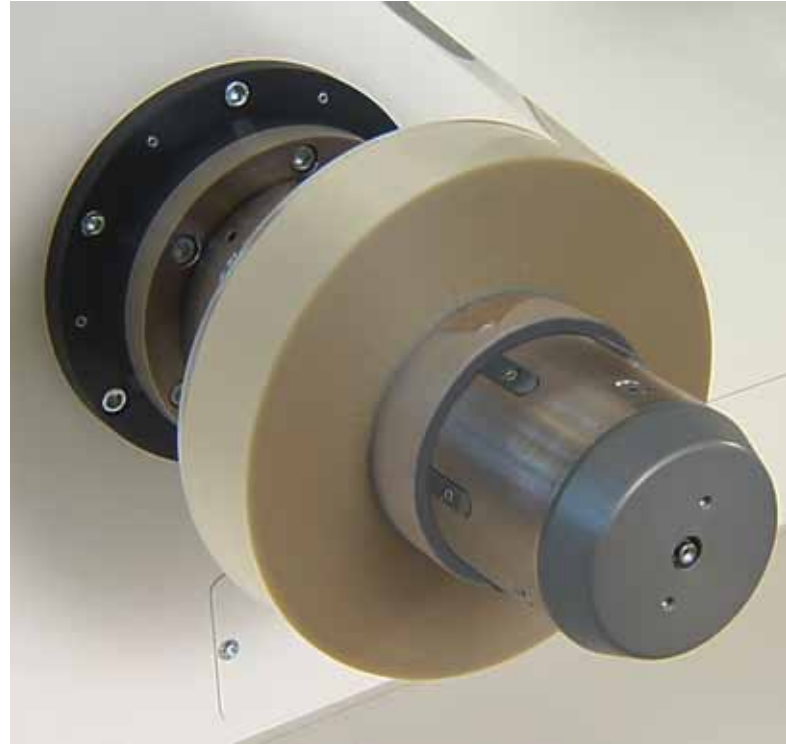
High-performance air flotation or support roll dryers ensure that the drying process runs under industrial conditions:

- // 1.5 m zones
- // Heating systems: Electric, gas and thermal oil
- // Air speed of up to 30 m/s
- // Fast installation and removal of nozzles
- // Option of oxygen-reduced drying operation

Components

- // System control designed for low web tensions and slow machine speeds
- // Cantilever design enables simple web handling

7



The impressive system flexibility is ensured, among other things, through the use of high-quality components. The modular design of FlexCo systems makes it possible to develop customized configurations quickly and easily. Special designs, such as temperature-controlled relaxation rolls, can be integrated with ease. As far as technically feasible, the system is assembled, installed and commissioned prior to delivery.

Polytype Converting AG
26, route de la Glâne
CH-1701 Fribourg/Switzerland

Phone +41 26 426 11 11
Fax +41 26 426 11 12

converting@wifag-polytype.com
www.polytype.com

SWITZERLAND

WIFAG-Polytype Holding AG
Fribourg/Switzerland

Polytype AG
Fribourg/Switzerland

WIFAG Maschinenfabrik AG
Fribourg/Switzerland

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