



Coatema – The Thin Film Coater

Overview

Introduction

Thin Film
Coater

Options &
specifications

Summary

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Introduction

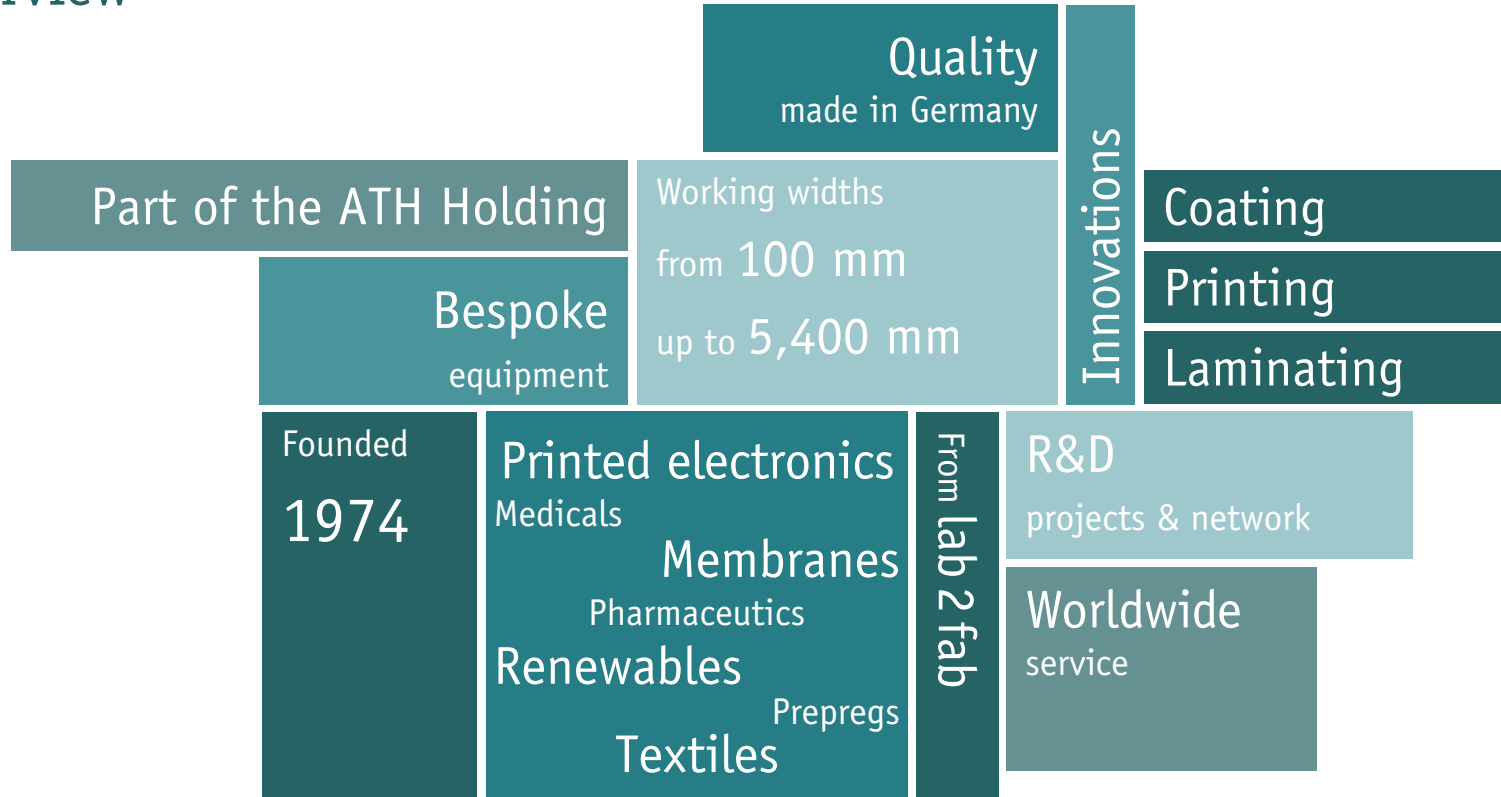
Thin Film
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Group of companies

ATH ALTONAER
TECHNOLOGIE
HOLDING



- ✓ Founded 1903
- ✓ Approx. 200 employees
- ✓ Located in Hamburg



- Founded 1995
- Approx. 50 employees
- Located in Norderstedt



- Founded 1974
- Approx. 50 employees
- Located in Dormagen



ANTRIEBSSYSTEME

- ✓ Founded 1919
- ✓ Approx. 140 employees
- ✓ Located in Hamburg

Summary

Introduction

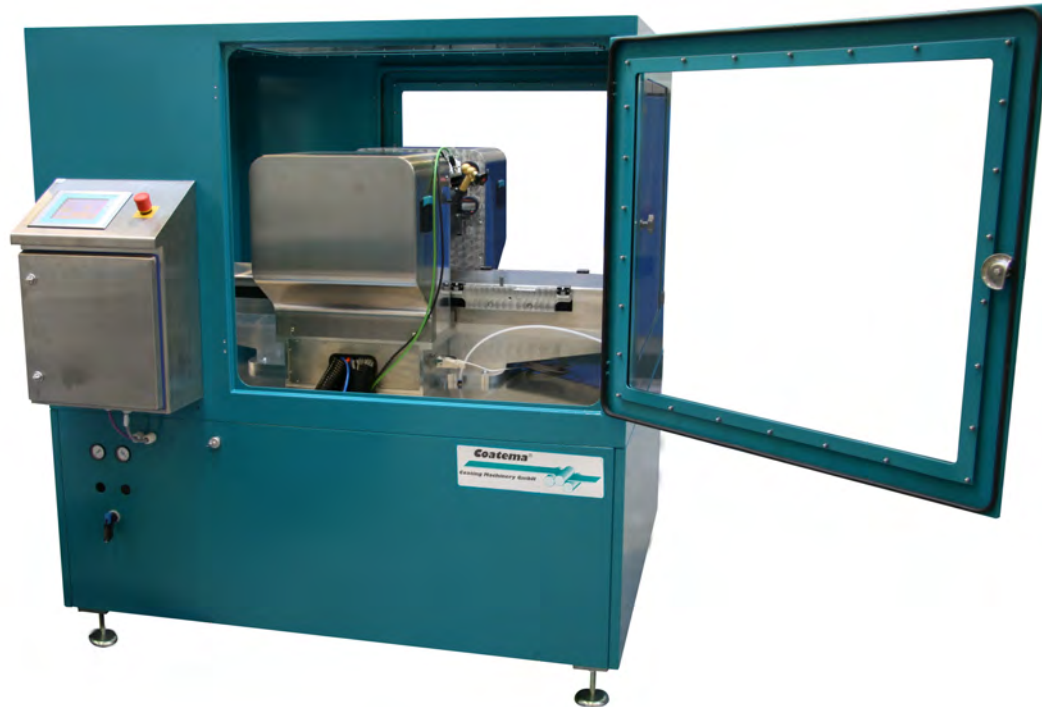
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Coater
Thin Film

Overview



Coating systems

- ✓ Slot die
- ✓ Doctor blade

Printing system

- ✓ Screen printing
- ✓ Inkjet

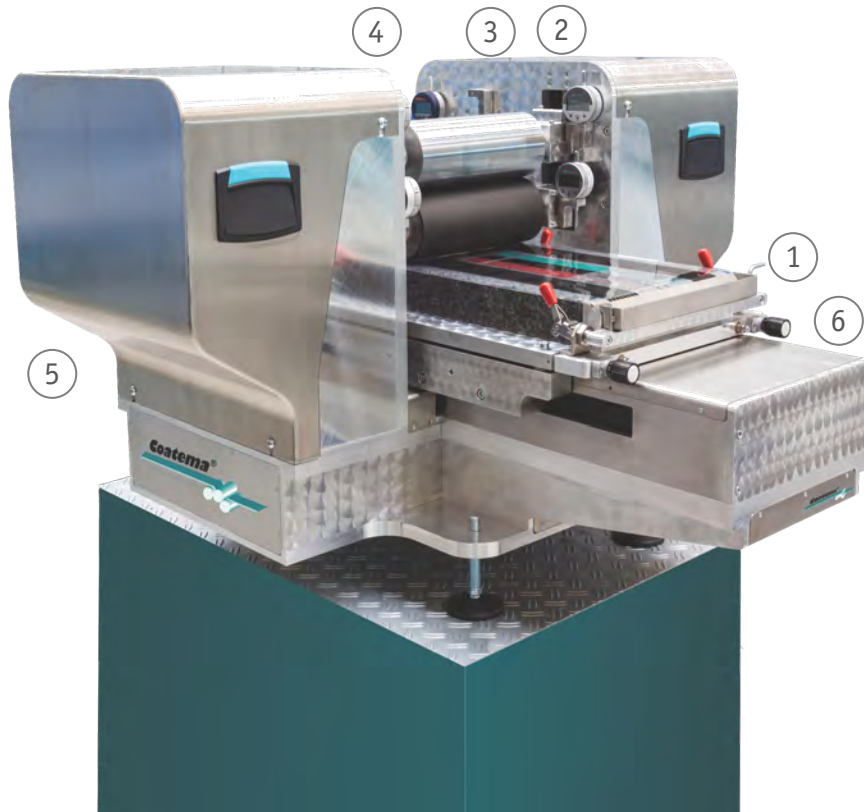
Substrate fixation

- ✓ High precision vacuum table
- ✓ Standard precision vacuum

Heating / crosslinking

- ✓ Heated air
- ✓ Infrared
- ✓ UV LED, NIR

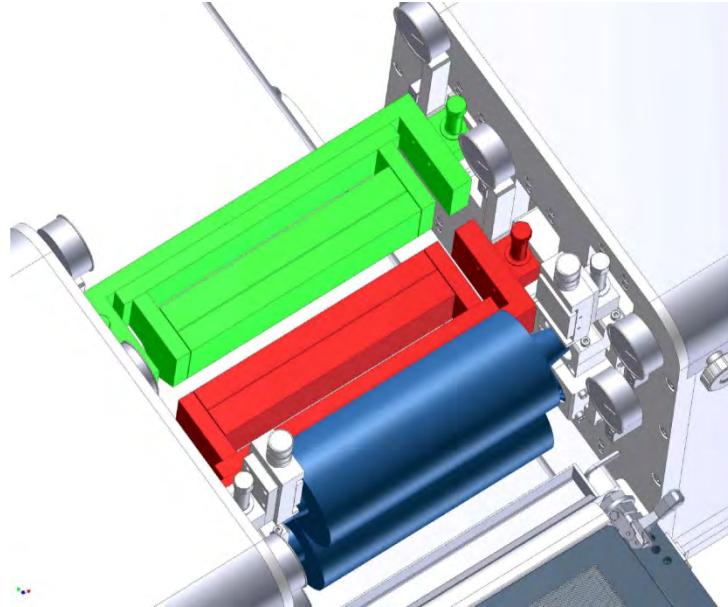
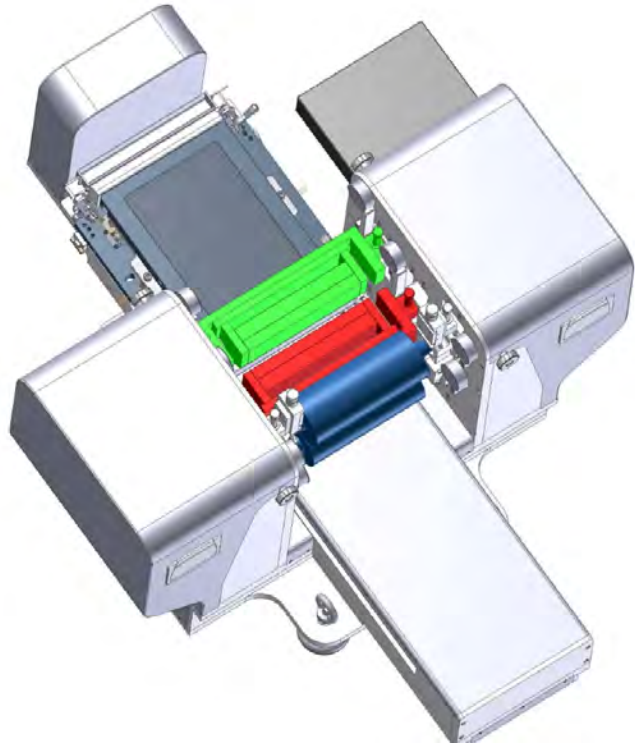
Overview



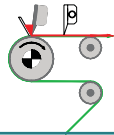
LAYOUT FEATURES (as shown in drawing above)

1	Granite vacuum table
2	Flexo printing
3	Gravure printing
4	Slot die
5	Motoric adjustment
6	Registration control

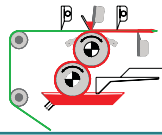
Space for three application systems



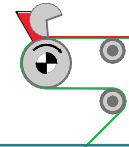
Coating systems



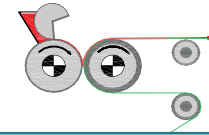
Knife system



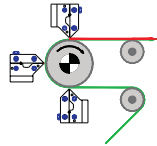
Double side system



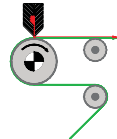
Commabar system



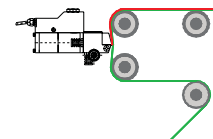
Reverse commabar system



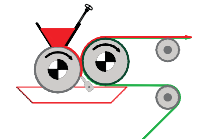
Slot die system



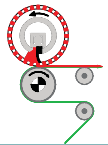
Curtain coating system



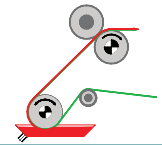
Hotmelt slot die system



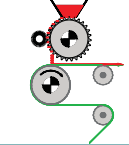
Case knife system



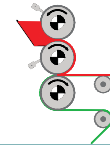
Rotary screen system



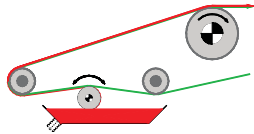
Dipping system (Foulard)



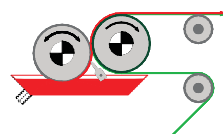
Powder scattering system



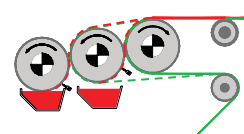
Reverse roll system



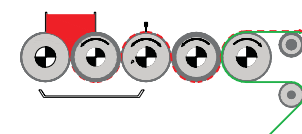
Micro roller system



2 Roller system

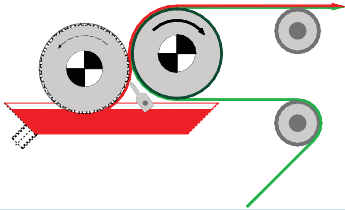


3 Roller combi system

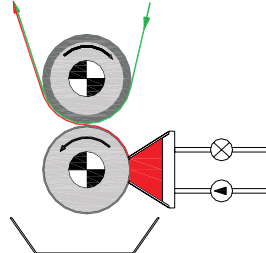


5 Roller system

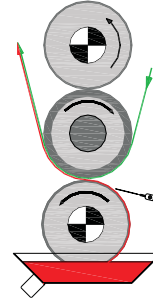
Printing systems



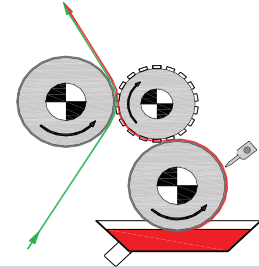
Engraved roller system



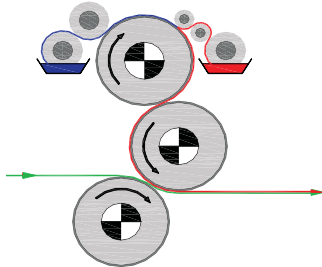
Gravure roller system



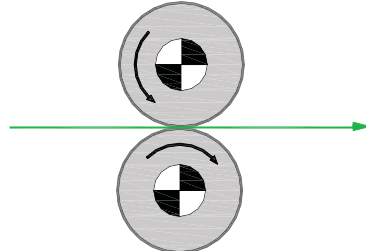
Gravure indirect system



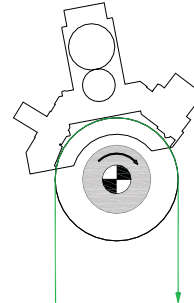
Flexography system



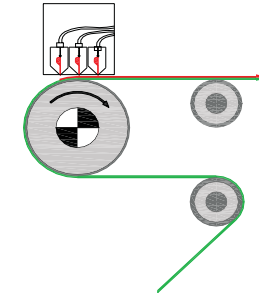
Offset lithography system



Hot embossing system



Nanoimprint system



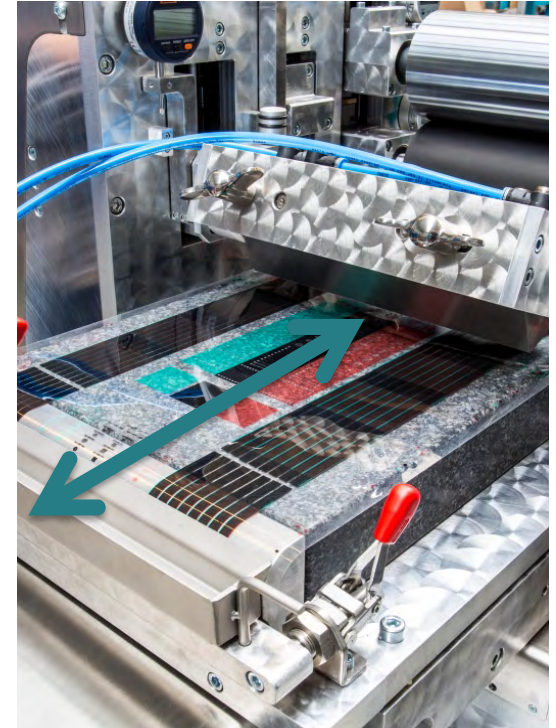
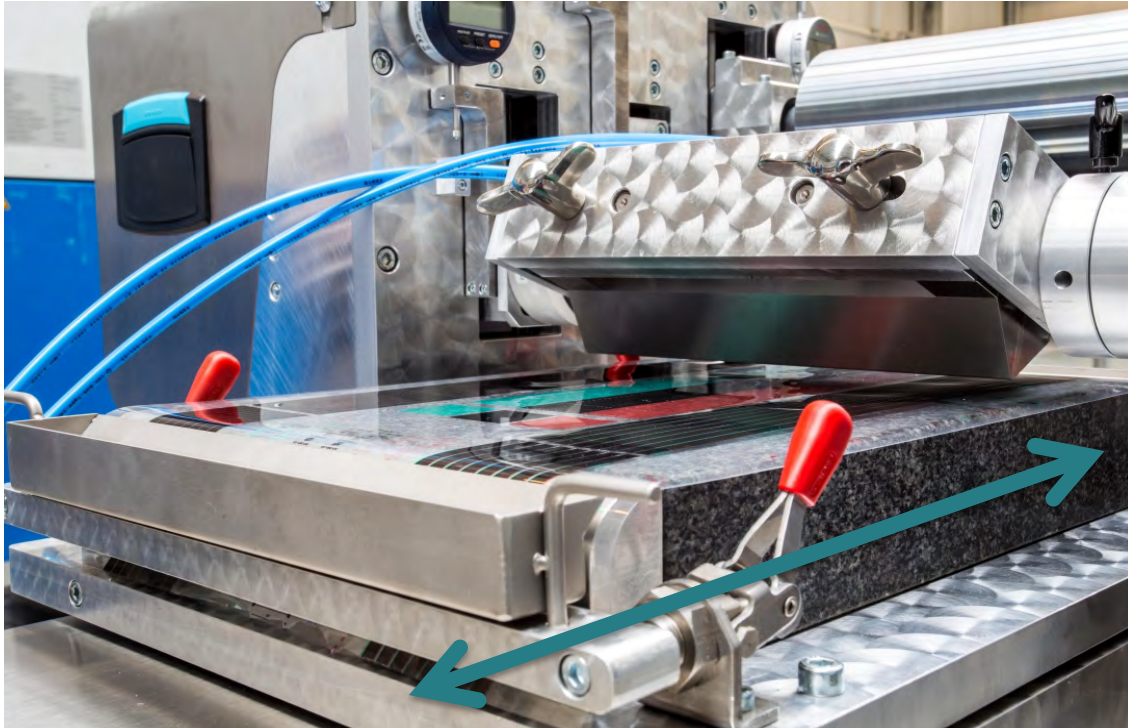
Inkjet system

Engraved roller system



The table glides
back and forth

Slot die (heatable)



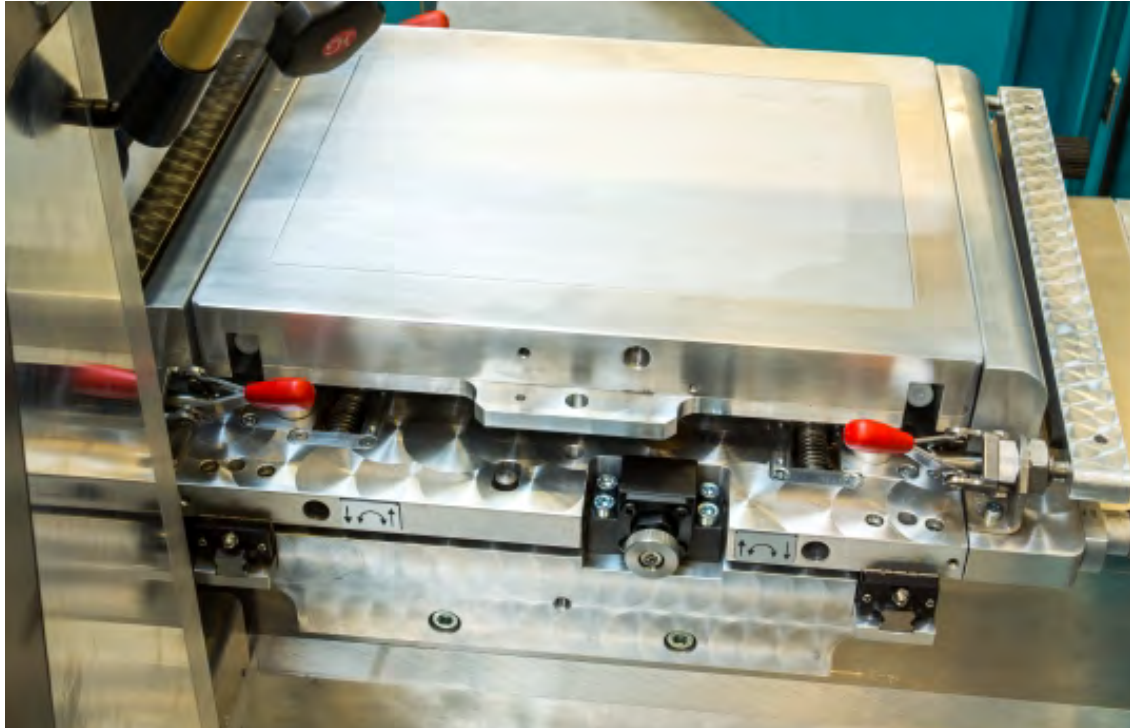
Precision granite table (Vacuum table possible)



Precision granite table (positioning)



Microporous aluminium table – Heatable; fixation of the substrate via vacuum



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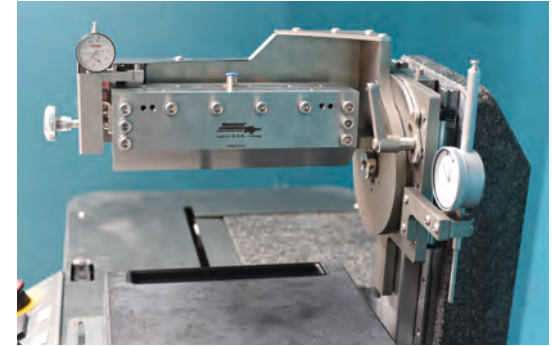
specifications
Options &

Options specifications

The Thin Film Coater facts:

- ✓ Continuous S2S coating, printing, drying and crosslinking in one unit
- ✓ Sample size A4 or A3
- ✓ V: 0.1 – 10 m/min, F: 10 – 250 N
- ✓ Application systems
 - ✓ Flexo
 - ✓ Gravure
 - ✓ Rotary screen
 - ✓ Doctor blade
 - ✓ Commabar
- ✓ Dryer temperature: max. 120°C
- ✓ NIR or IR heating available
- ✓ UV LED
- ✓ Photonic sintering unit
- ✓ Unit can be in operation with camera register controlled
- ✓ Motoric gap adjustment
- ✓ High precision vacuum table

Options



Doctor
blade

Vacuum
table

Slot die

Technical specifications in detail

Printing systems

- ✓ Engraved roller
- ✓ Flexo
- ✓ Rotary screen

Coating system

- ✓ Slot die (heatable)
- ✓ Doctor blade
- ✓ Commabar

Working width

- ✓ DIN A4, DIN A3

Precision table

- ✓ Vacuum granite table
- ✓ Up to 1 μ accuracy

More

- ✓ With or without encapsulation
- ✓ High precision gap adjustment
- ✓ Camera detection system for registration control
- ✓ Can operate with solvent & based materials

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For small R2R trial runs!

The customer benefits:

- ✓ Compact S2S unit
- ✓ Small scale R2R unit – easy to use
- ✓ Small amount of inks being used - less trial cost
- ✓ Reproducible results – scalable R&D
- ✓ Can have the option to runs backwards – multilayer in a short time
- ✓ EEx operation on small scale
- ✓ New design features increase performance
- ✓ Can be operated in nitrogen atmosphere

Do not hesitate to contact us!



Anything missing?

Let us know and we will make it happen!

Our R&D centre is worldwide the most versatile centre for coating, printing and laminating.

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Thank you



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