



***Coatemala***

# Coatemala Basecoater

03/06/25

MEMBER OF ATH

# Agenda

1. Introduction
2. Basecoater
3. Basecoater 3<sup>rd</sup> Generation
4. Custom made Basecoater
5. Options & specifications
6. Summary

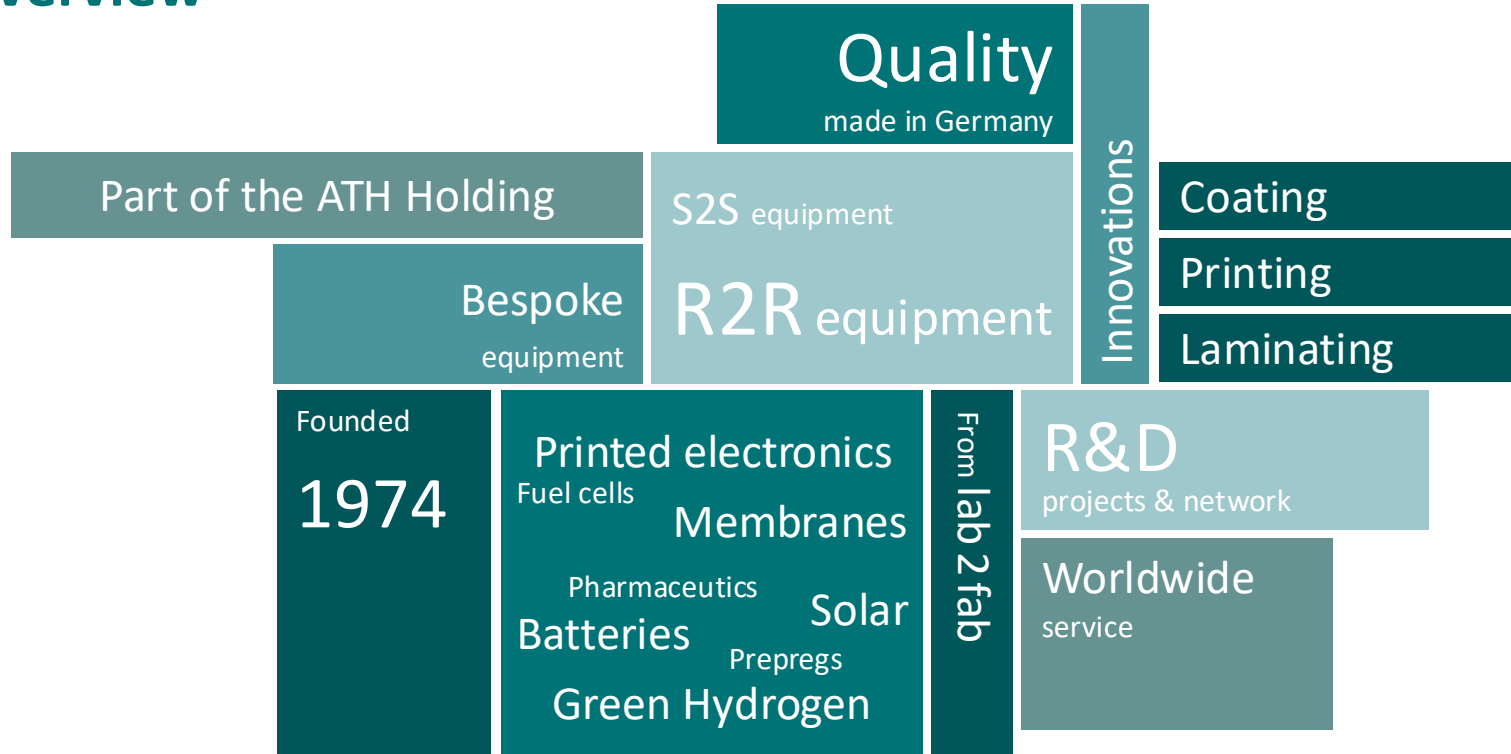


# 1.

## Introduction



## Overview



## Group of companies

**ATH** ALTONAER  
TECHNOLOGIE  
HOLDING



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

**DRY/TEC**

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



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

## Coatema equipment platform strategy for lab 2 fab



Lab

- ✓ State-of-the-art research and development equipment
- ✓ Sheet-to-sheet to roll-to-roll systems on small scale & footprint



Pilot Production

- ✓ Proven processes for printing, coating and laminating equipment
- ✓ Highest-quality pilot lines enable stable pilot production and reduce cost of operation
- ✓ Scaling laboratory equipment to enable pilot production



Production

- ✓ Full-scale production lines
- ✓ Optimize the manufacturing process, including streamlining assembly, reducing material waste, and optimizing the carbon footprint



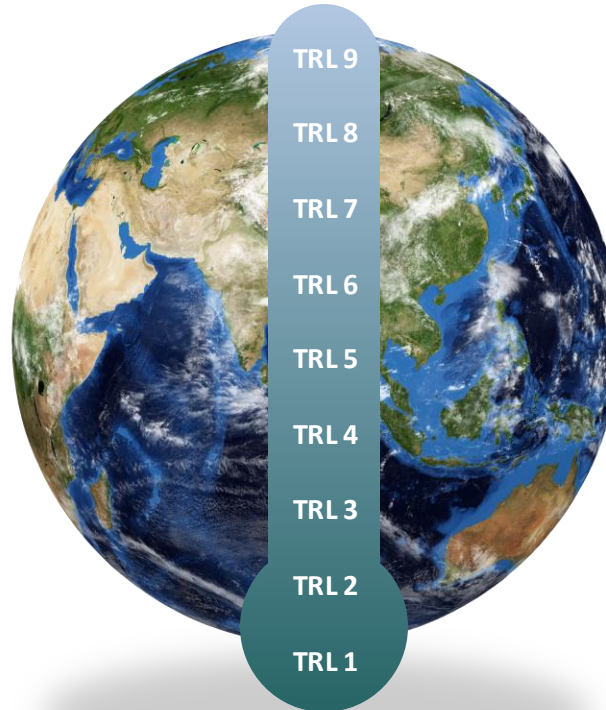
## Our markets – Coatema focus areas

Green Hydrogen

Fuel cells

Batteries

Solar



Sustainability

Digital fabrication

Printed  
electronics

The next thing

## R&D centre USP



### Process development

- ✓ Feasibility study
- ✓ Ink – process study
- ✓ Process analysis
- ✓ Slot die coating simulations
- ✓ Proof of concept
- ✓ Small scale prototype



### Test production

- ✓ Prototyping
- ✓ Near to market testing
- ✓ TRL evaluation
- ✓ Training of staff



### Education

- ✓ Coating conference
- ✓ Partner trainings
- ✓ Education of students
- ✓ Workforce training



### Development of custom-made design for equipment

- ✓ Prototyping
- ✓ Proof of concept



### Public funded research projects know-how

- ✓ German funded
- ✓ Horizon 2020
- ✓ Global 2+2 projects
- ✓ B2B projects



## Coatema services as an overview

### The Coatema R&D centre



Accelerate your innovation in our dedicated pilot facility with advanced lab & pilot lines and expert guidance – bridging the gap from #lab2fab.



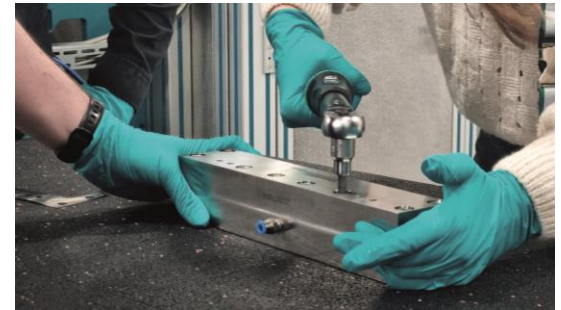
### The Coatema Coating Symposium



Join the global network of coating experts at our annual event, where cutting-edge developments meet industry collaboration for next-level innovation.



### The Coatema Slot Die Masterclass



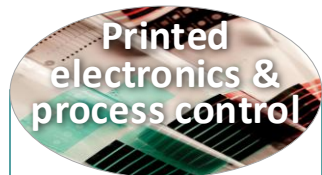
Master precision coating in our hands-on training program, led by industry specialists to optimize slot-die performance and product excellence.



## R&D customers



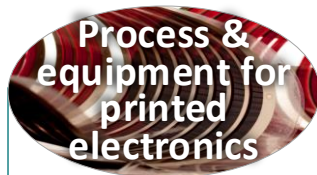
## R&D projects overview 2022 – 2025



In-line and real-time digital nano-characterization for flexible organic electronics



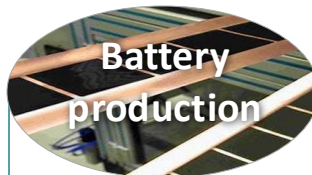
The NOUVEAU project will develop solid oxide cells (SOCs) with innovative La- and PMG-free electrode materials



R2R production line for OPV solar with integrated backend



Upscaling and development of EC based switchable films to decrease energy use in buildings



Implementation of laser drying processes for lithium-ion battery production



R2R process optimization for solid state batteries



Plasmonically enhanced photocatalysis for wastewater treatment



R2R nanostructuring of functional films



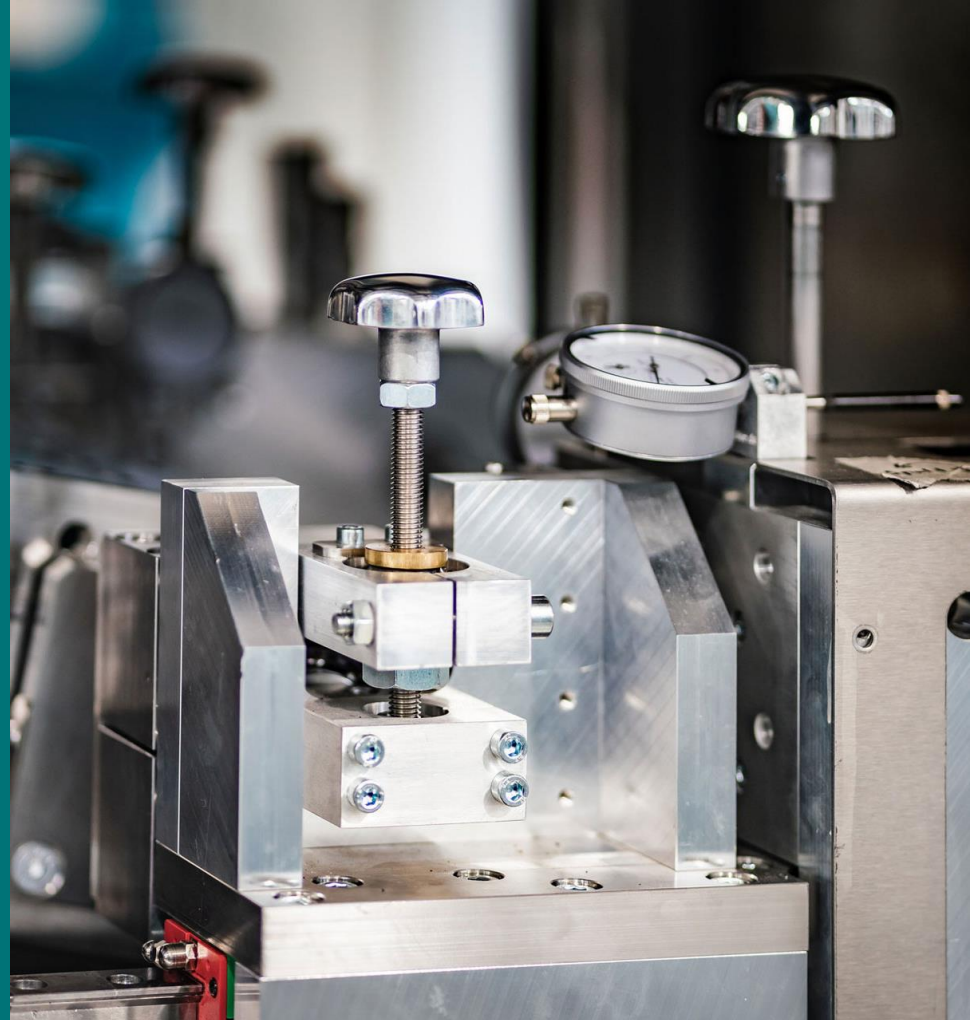
The WaterProof project aims at developing an electrochemical process that converts CO<sub>2</sub> emission



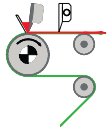
Creating an open-innovation testbed for sustainable packaging

# 2.

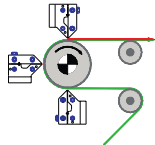
## Basecoater



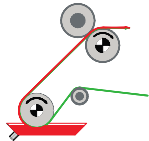
## Coating systems



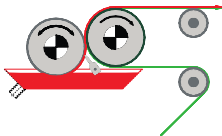
Knife system



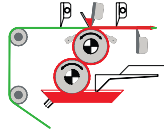
Slot die system



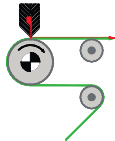
Dipping system (Foulard)



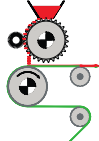
2-roller coating system



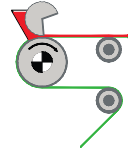
Double side coating system



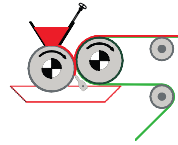
Curtain coating system



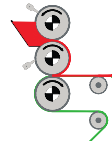
Powder scattering system



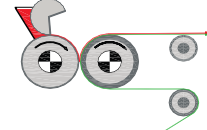
Commabar system



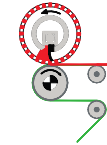
Case knife system



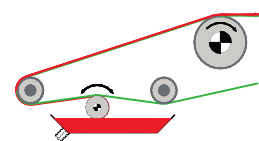
Reverse roll coating system



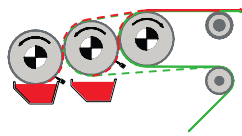
Reverse commabar system



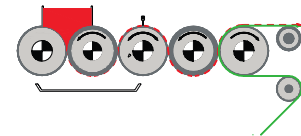
Rotary screen system



Micro roller coating system

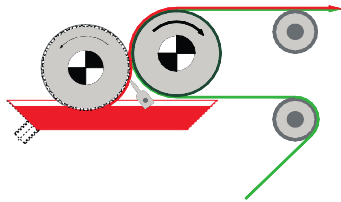


3-roller combi coating system

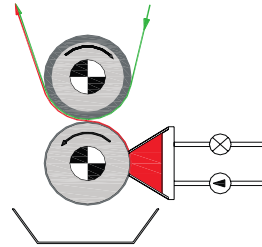


5-roller coating system

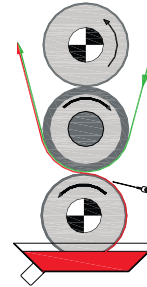
## Printing systems



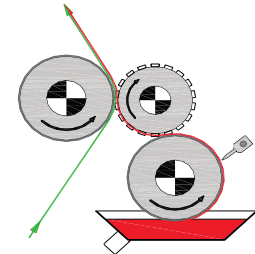
Engraved roller system



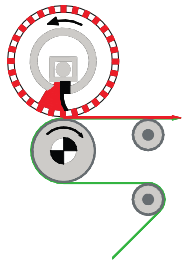
Gravure roller system



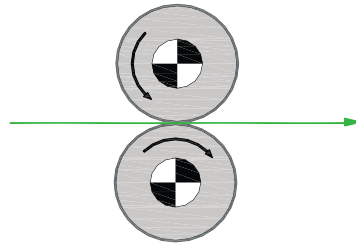
Gravure indirect system



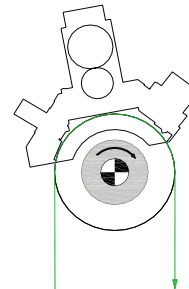
Flexography system



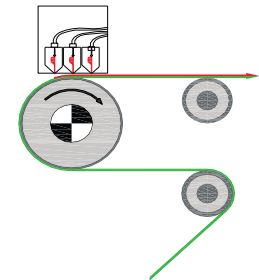
Rotary screen system



Hot embossing system



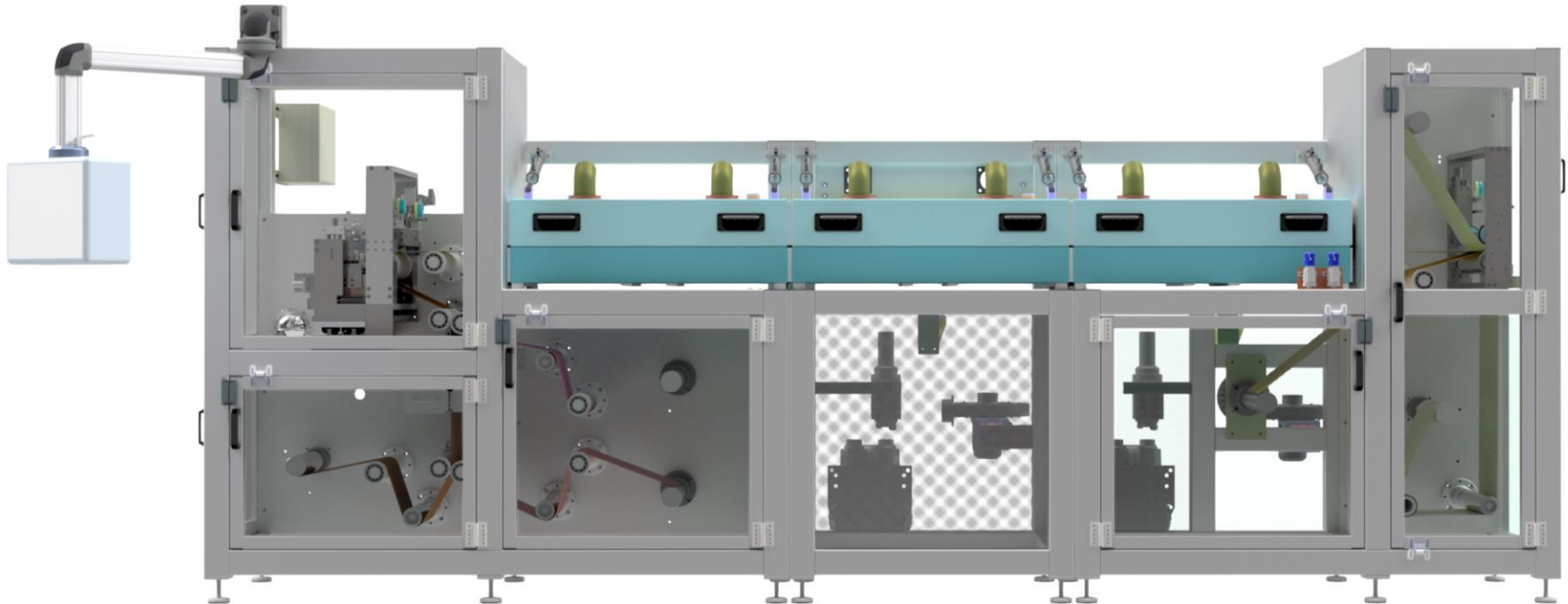
Nanoimprint system



Inkjet system



## The Basecoater



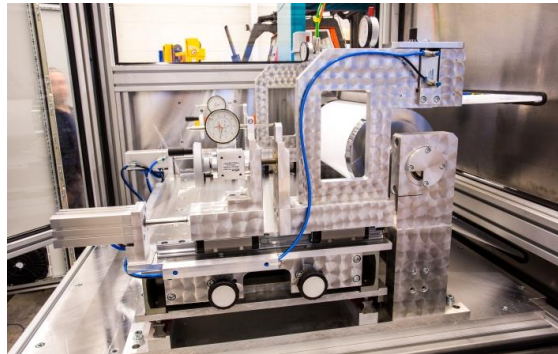
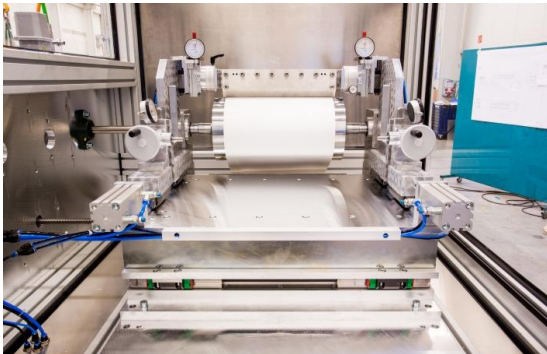
## The Basecoater standard



## Dryer

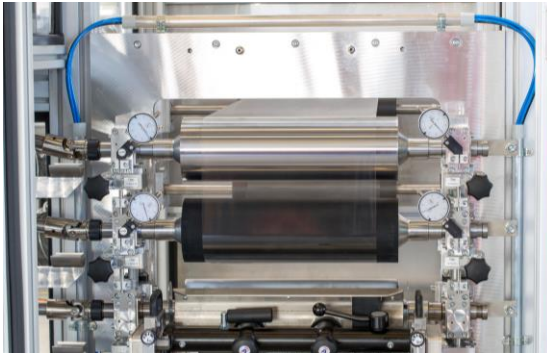


# Coatema Basecoater

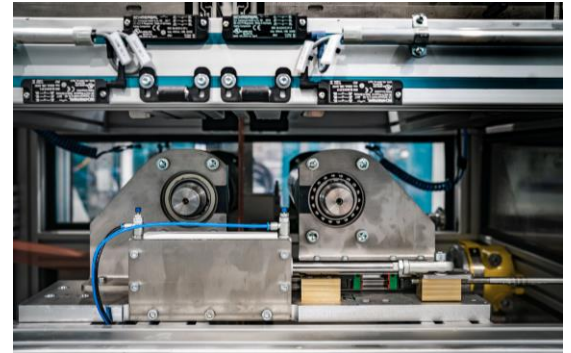
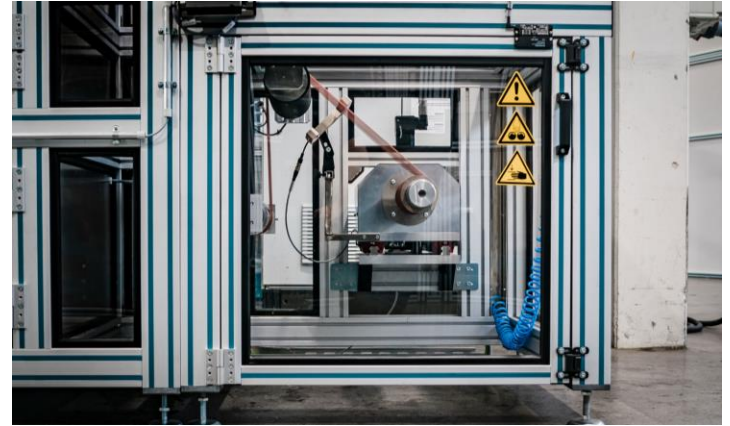




# Coatema Basecoater



# Coatema Basecoater





# 3.

## Basecoater 3<sup>rd</sup> Generation



## Overview drawing of the new Basecoater



Unwinder	Slot die system	3m dryers	ps laser	Slot die system	Ink jet	3m dryers	IPL	In-line optical metrology (SE, Raman)	LBIC	Rewinder
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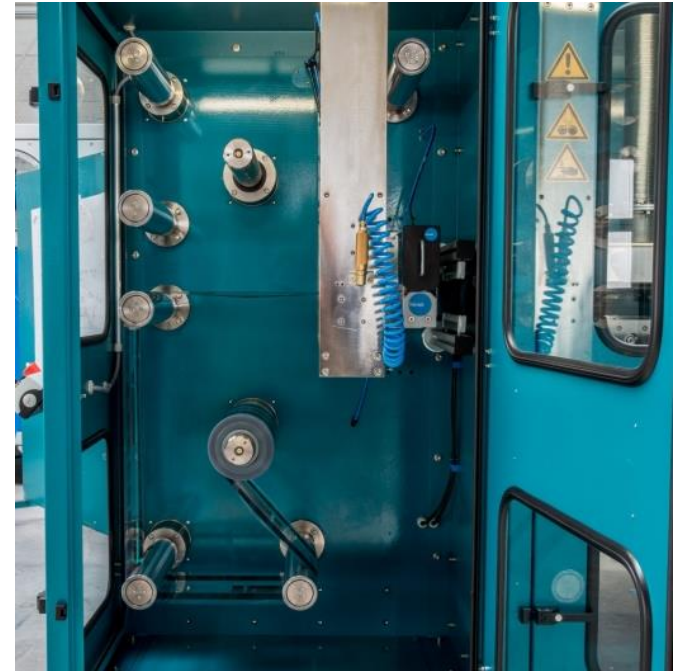
## Overview of product features & options for the new Basecoater



LAYOUT FEATURES (as shown in drawing)

1	Cantilever
2	Delamination/Lamination
3	Contact cleaning system
4	Corona station
5	Slot die system
6	Rotary screen system
7	2 Roller system
8	Hot air dryer, IR-dryer
9	UV-unit
10	Enclosure – glove box option
11	Edge guiding system
12	Cross-directional cutting system

## Unwinder and delamination



## Contact cleaning with bath system





## Corona station

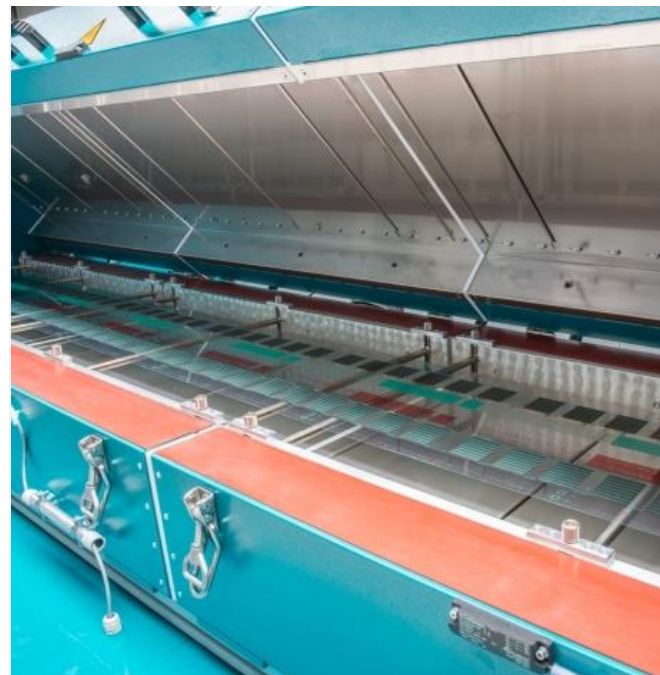




## Slot die coating device on trolley



## Dryer

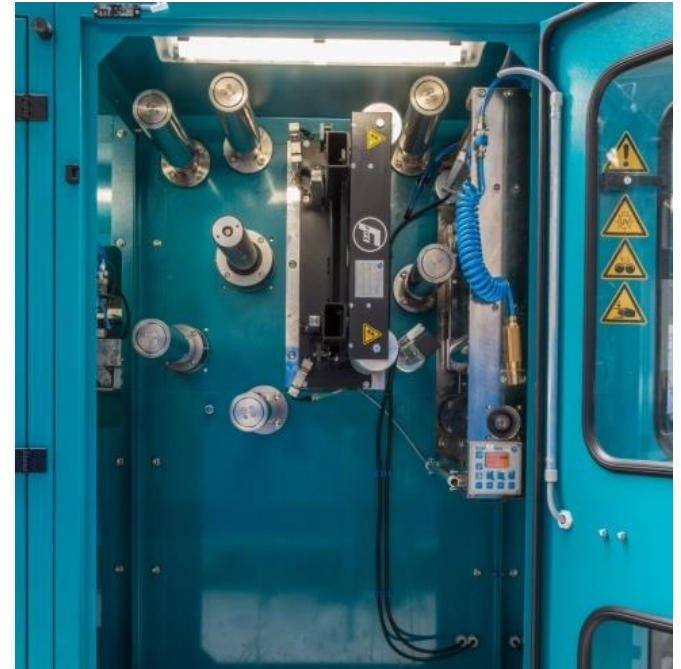


## Edge sealing system





## Lamination unit



## UV unit and rewinder



## Pulling device and cutting system



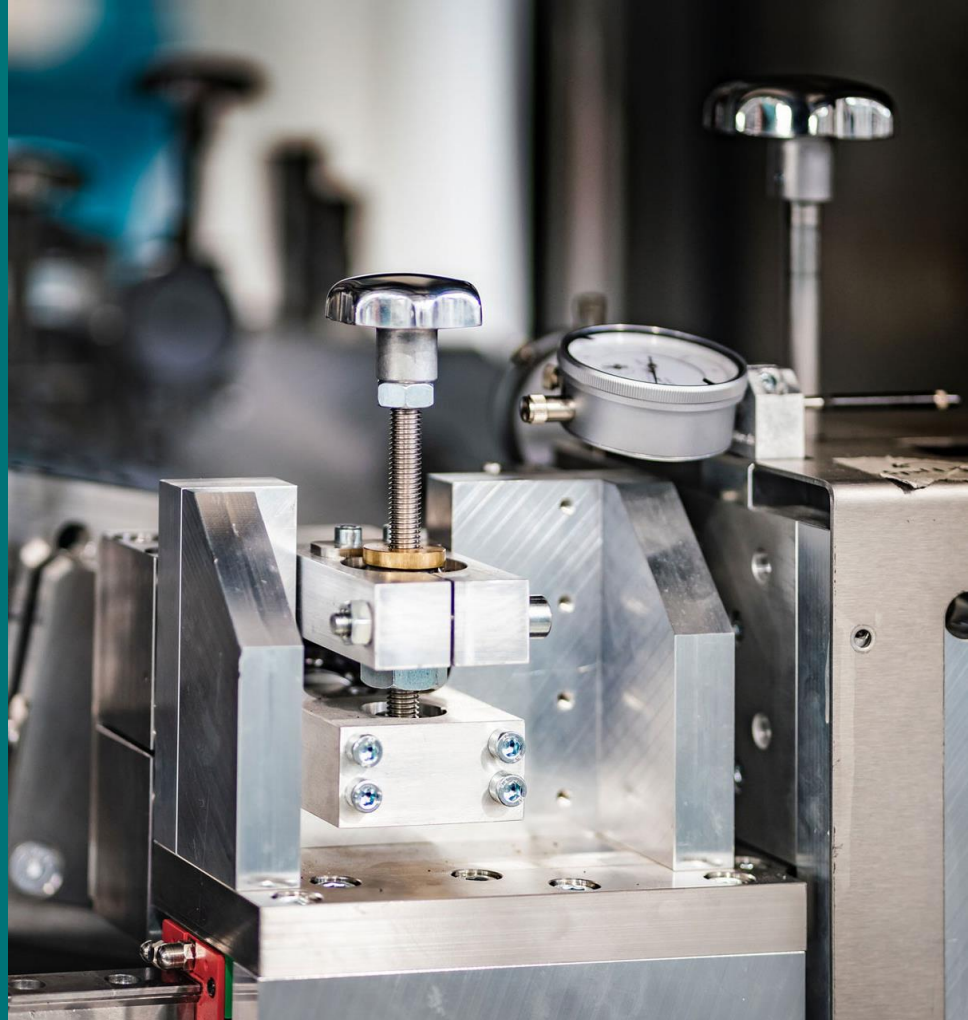


## Backside of the unit

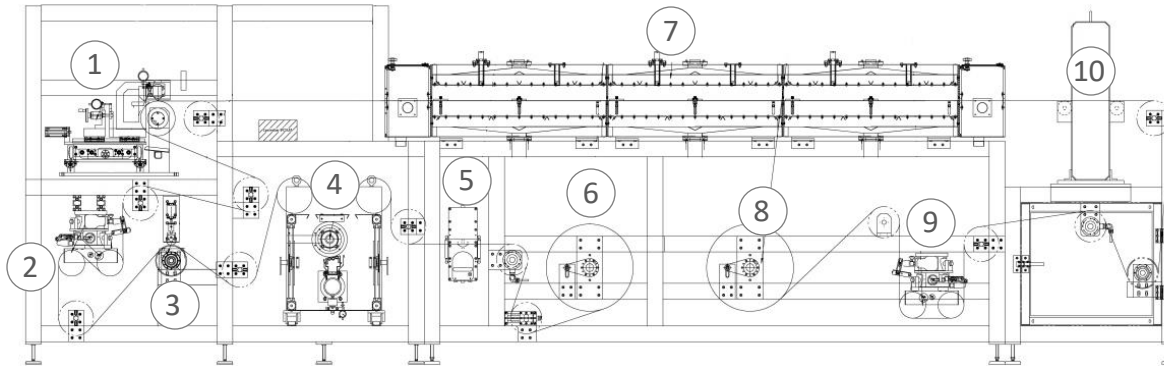


# 4.

## Custom made Basecoater



## Overview of product features & options for the Basecoater



LAYOUT FEATURES (as shown in drawing)

1	Coating device
2	Edge guiding system
3	Pulling device
4	Corona
5	Contact cleaning
6	Unwinder
7	Dryer
8	Rewinder
9	Edge guiding system
10	Thickness control

## Overview



### Coating systems

- ✓ Exchangable modules
- ✓ Over 30 systems available

### Printing system

- ✓ Exchangable modules
- ✓ Inkjet

### Control system

- ✓ Siemens S7
- ✓ Load cells for tension control

### Heating/Crosslinking

- ✓ Heated air
- ✓ Infrared
- ✓ UV

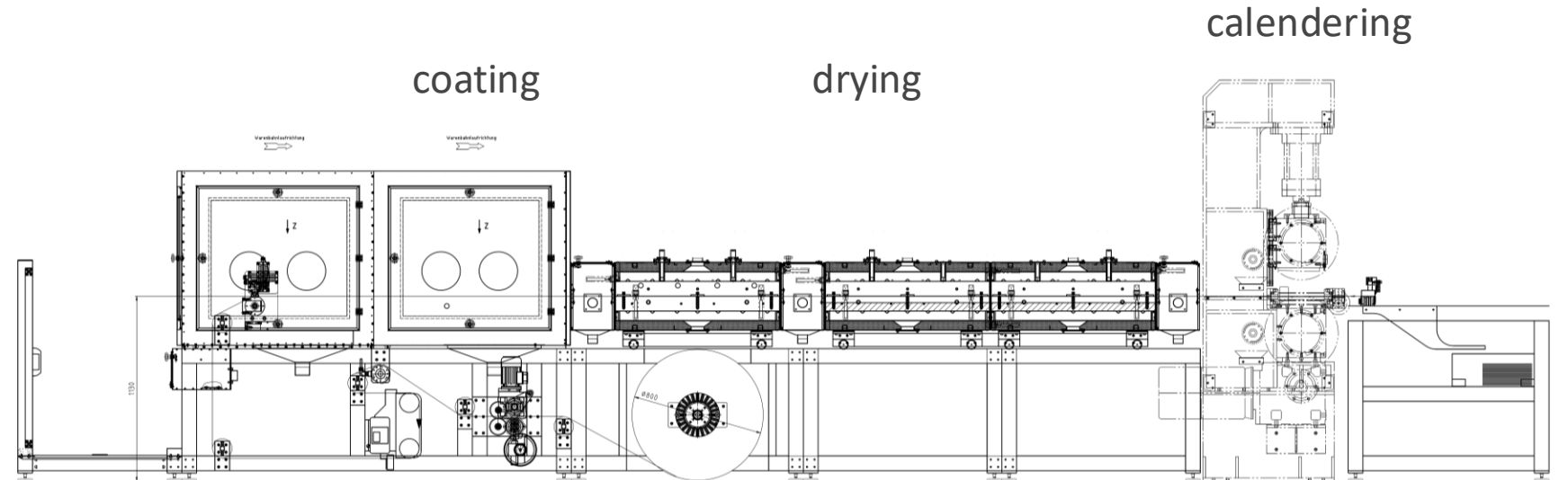


## Bespoke Basecoater battery equipment

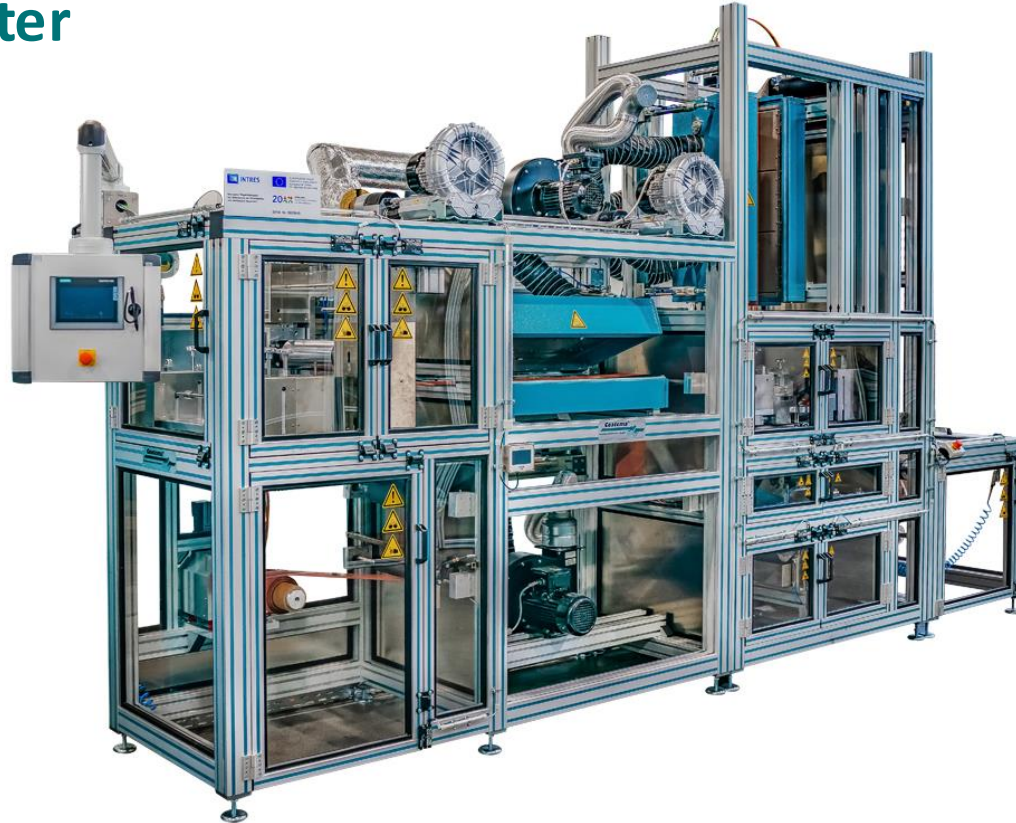


- ✓ Oxygen content <3%
- ✓ Saturated solvents below LEL
- ✓ IR Drying
- ✓ 50m<sup>3</sup>/h N<sub>2</sub> flow

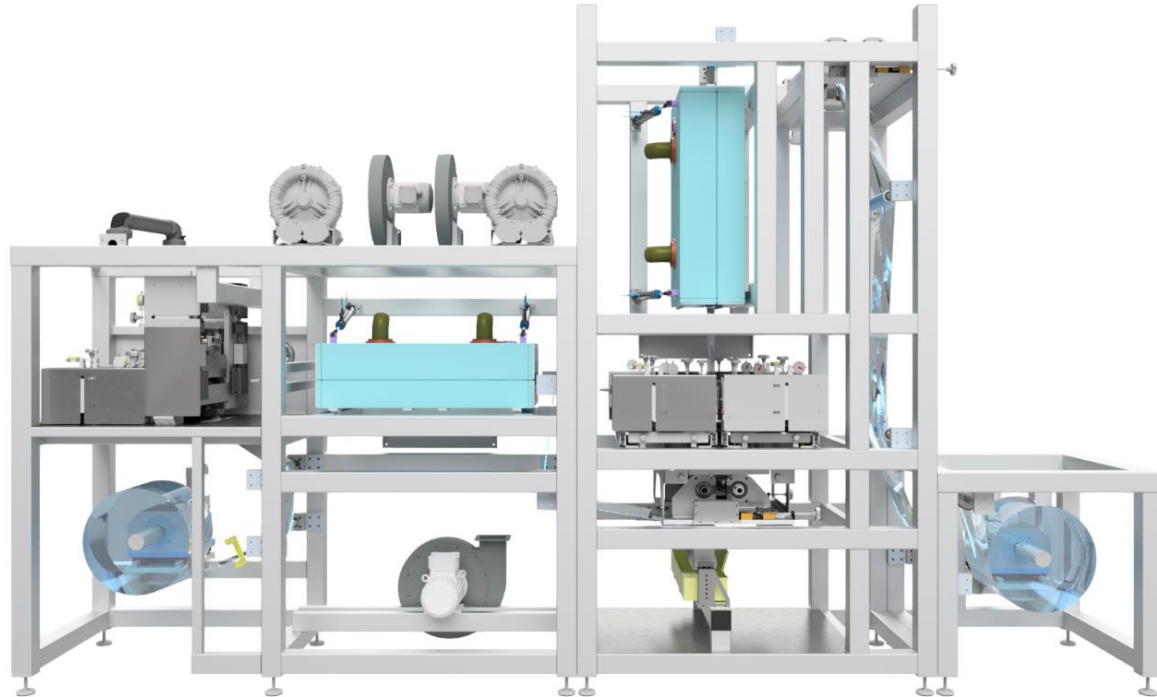
## Bespoke Basecoater battery equipment



## The Basecoater

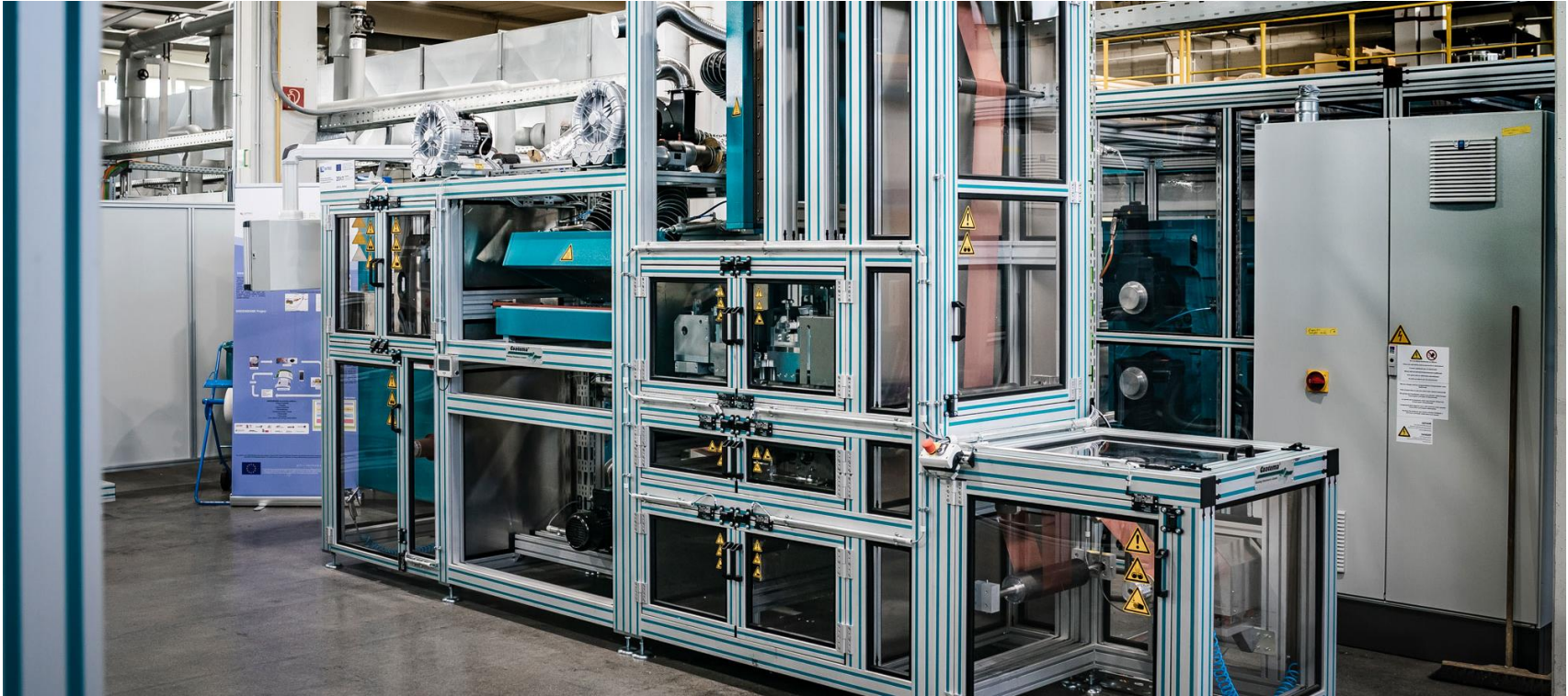


## The Basecoater

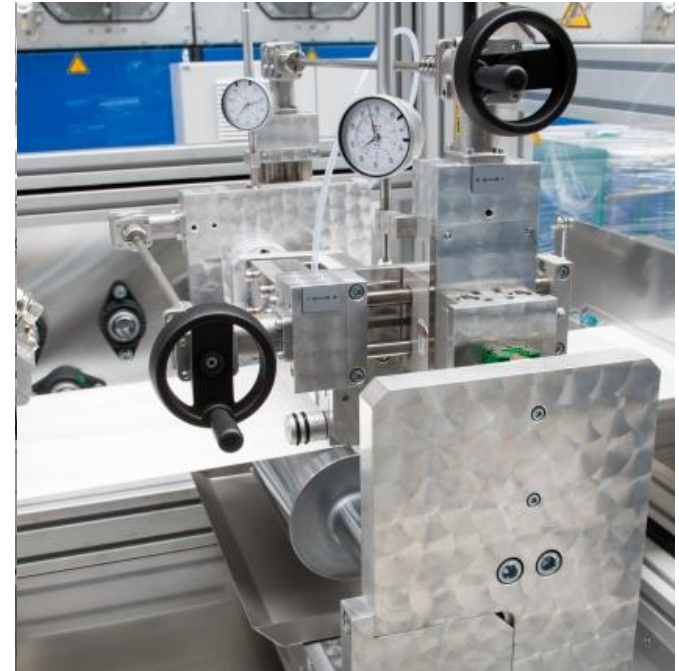
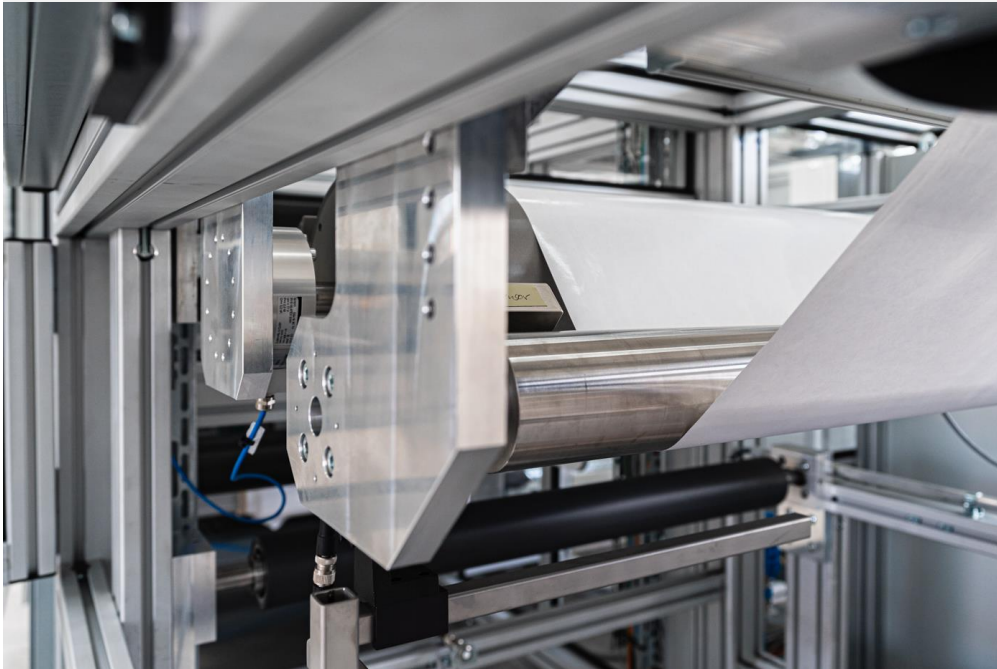




# Custom made Basecoater



## Slot die application

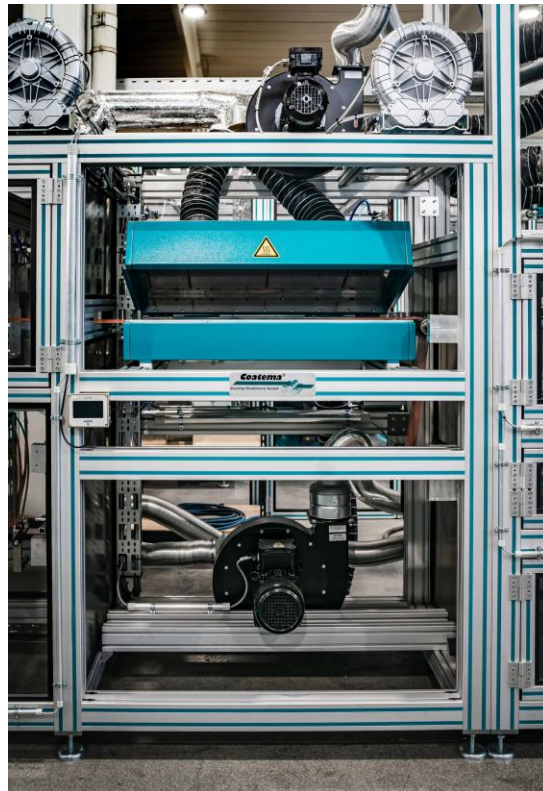




# Custom made Basecoater



# Custom made Basecoater



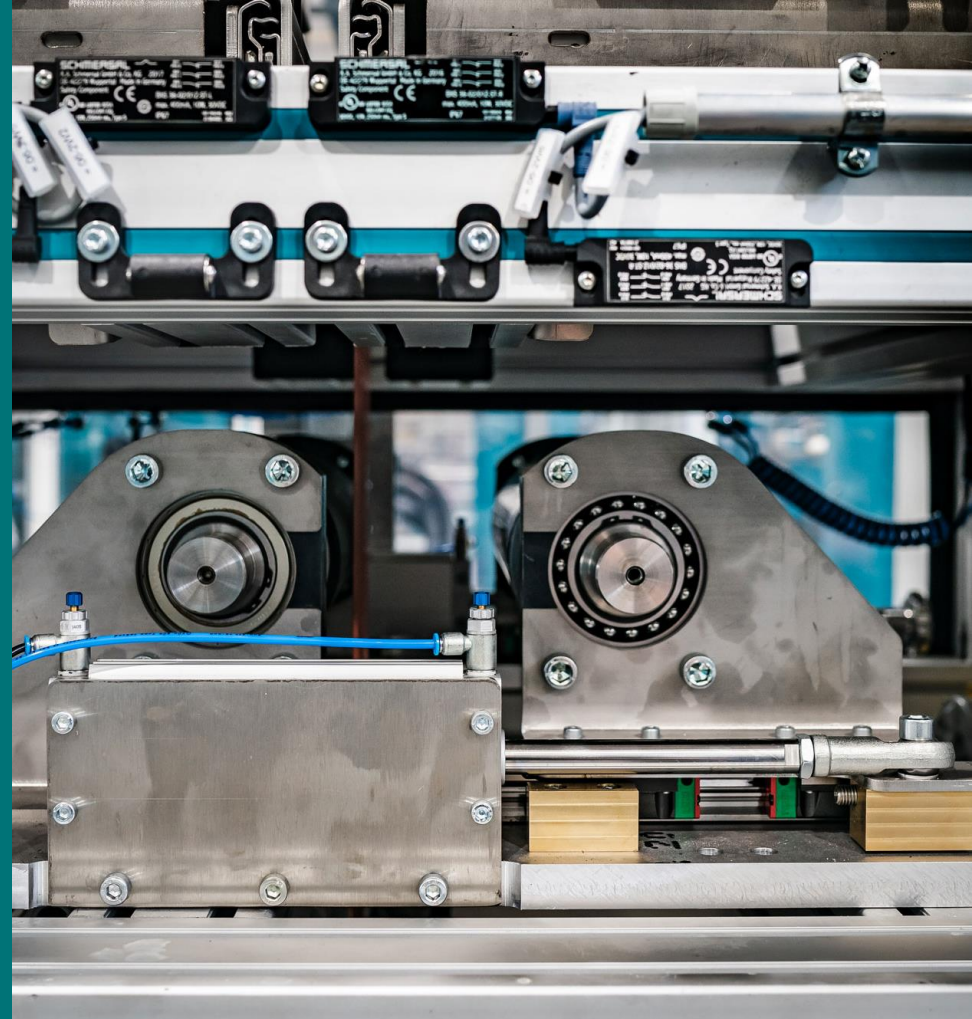


# Custom made Basecoater



# 5.

## Options & specifications



# Technical specifications in detail

### Operating options

- ✓ Tension control system with load cell
- ✓ Siemens S7 system

### Dimensions size

- ✓ Depending on configuration (LxBxH)

### Dryer

- ✓ Hot air (UV, IR on demand)

### Coating options

- ✓ Over 40 coating and printing systems for plug in and out

### Machine base

- ✓ All processes fully enclosed
- ✓ Easy and quick machine setup

### Options

- ✓ Washing module
- ✓ Lamination module
- ✓ Corona module
- ✓ Web cleaner
- ✓ Turret
- ✓ Inert coating modul
- ✓ Relaxation modul
- ✓ UV dryer (mobil)
- ✓ Double side lamination (unheated)

# 6.

## Summary





# The Basecoater benefits

- ✓ Versatile layouts available
- ✓ Working widths 300 mm / 500 mm / 800 mm / 1.000 mm
- ✓ Interchangeable and modular coating & printing systems
- ✓ Inert gas layout available for battery and other production
- ✓ Coatema electrical dryer concept and Drytec flotation dryer available
- ✓ Over 50 units in the market
- ✓ Fully industry 4.0 versions available
- ✓ Perfect and economical scaling up tool

## Do not hesitate to contact us!



The Basecoater is part of the Coatema lab and pilot line platform strategy.

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

Anything missing?

Let us know and we will make it happen!

Sales department:  
[sales@coatema.de](mailto:sales@coatema.de)

Download  
brochures & presentations



***Coatema***

Thank you

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