



OLBRICH

polytype//converting[®]

OLBRICH Group



TECHNICAL CENTRES

ABOUT US

REALISING INNOVATION – OUR TECHNICAL CENTRES!

We are often asked why systems from OLBRICH | Polytype Converting® are so successful worldwide. Is it due to the experience/expert knowledge of our engineering teams and the reliability of our machines or a willingness to think outside the box and take chances pursuing new ideas?

Especially for the development of new machine concepts and innovative processes or product ideas it is important for planned investments to gain vital data under real production conditions.

Using our own Technical Centres in Switzerland and Germany we are in a position to combine established technologies to develop new machine concepts or processes resulting in the development of innovative new products creating a competitive advantage for our customers.

Apart from the five multi-purpose lines in our Technical Centre, our experienced process engineers use comprehensive computerbased simulations and process analyses to address customers' individual requirements.

Come, look and see!



OLBRICH Headquarters Bocholt, Germany



It's brand Polytype Converting® in Hamburg, Germany & Fribourg, Switzerland

OUR SERVICES – YOUR BENEFITS

- Individual high-performance components and plants
- High level of reliability based on know-how, experience and brand quality
- Process and engineering expertise, as well as application-related technical consulting and support in all project phases
- Computer-based numerical calculations and process analyses
- Guaranteed results thanks to real production conditions in the test process
- Flexibility and speed of execution

OUR TECHNICAL CENTRE

- Multi-purpose coating and laminating line
Web width max. 500 mm
- State-of-the-art laminating and embossing line
Web width max. 1,000 mm
- Precision coating line
Web width max. 1,050 mm
- Coating and laminating line TECHMA 1
Web width max. 800 mm
- Coating and laminating line TECHMA 2
Web width max. 800 mm

TWO POWERFUL BRANDS



COATING LINE BA1

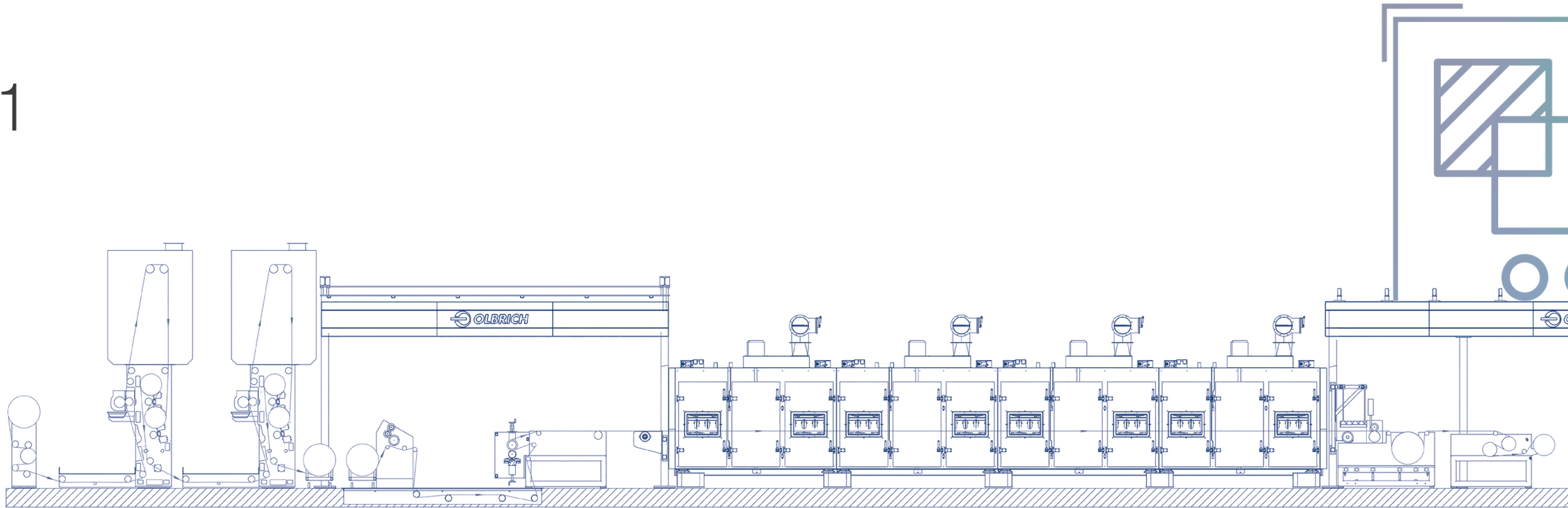
MULTIFUNCTIONAL COATING AND PRINTING LINE

- Working widths up to 500 mm, partly up to 1,000 mm
- Mech. line speed: 1 – 75 m/min., partly up to 150 m/min.
- Web tensions from 25 N to 500 N
- Explosion protection: yes

FIELD OF APPLICATIONS

Validation of process technologies and R&D support for products such as decorative films, artificial leather, technical films, vinyl wallpapers, PVC flooring (for example cushion vinyl, luxury vinyl tiles, homogeneous flooring, safety flooring), PVC-free floor coverings, conveyor belts, technical textiles, tarpaulins, billboard material, adhesive tapes and films, packing films and many more.

The conception of the line BA1 comes with our proven modular design which enables us to adapt the line not only to a wide variety of individual web paths but also to various process technologies.





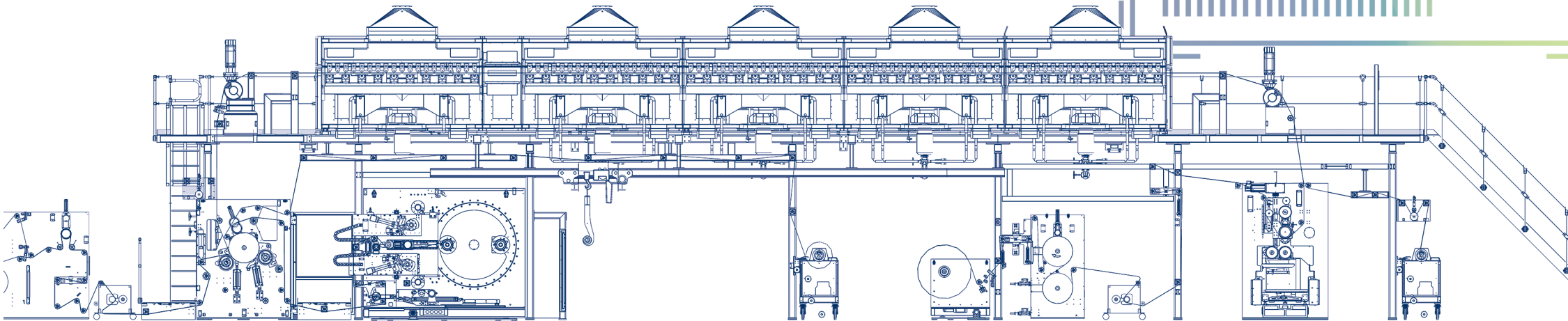
COATING LINE BA2

**PRECISION COATING SYSTEMS AND
ADVANCED WINDING TECHNOLOGY
FOR HIGH-END PRODUCTS!**

- Adhesive tapes
- Protective films
- Films for the packaging industry
and the hygiene industry
- Primary material for labels
- Films for the photo-voltaic industry
- Composite films for the printing industry
- Films for the electrical industry, displays
- Films for the automotive industry
- Films for the construction industry
and building technology
- Technical papers for
insulation technology
- Inkjet papers
- Siliconised papers and films

**A WIDE RANGE OF
WEB WIDTHS AND WEB SPEEDS**

- Working widths 500 mm to 1,050 mm
- Mech. line speed: 2,5 – 500 m/min.
- Web tensions from 5 N to 800 N
- Explosion protection: yes



EMBOSSING & LAMINATING LINE PLA1

PRODUCTION-RELATED LAMINATING AND EMBOSSING LINE

- Working widths up to 1,000 mm
- Mech. line speed: 1 – 100 m/min.
- Web tensions from 50 N to 1,000 N
- Explosion protection: no

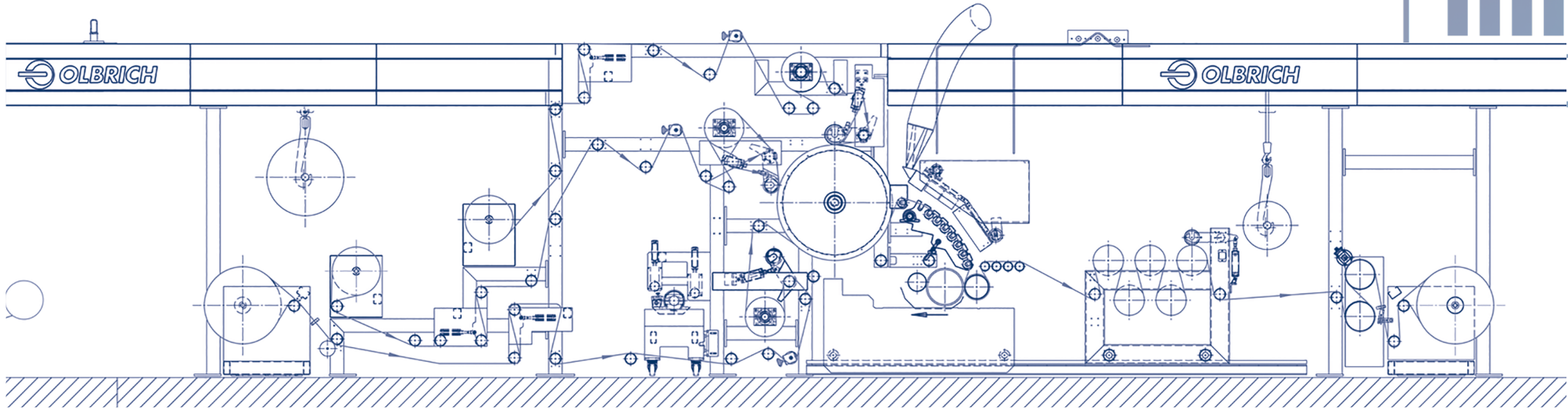
FIELD OF APPLICATIONS

Validation of process technologies and R&D support for laminated and embossed products such as

- Functional multilayer films
- Decorative films
- Artificial leather,
- Luxury vinyl tiles (LVT) flooring
- Conveyor belts
- Wallcoverings,
- Technical textiles
- PVC flooring and PVC-free flooring
- Packaging films
- Tarpaulins and many more.

Our production-related laminating and embossing line PLA1 is designed to replicate various web paths for multilayer laminates and features individual control of web temperature and web tension for each layer.

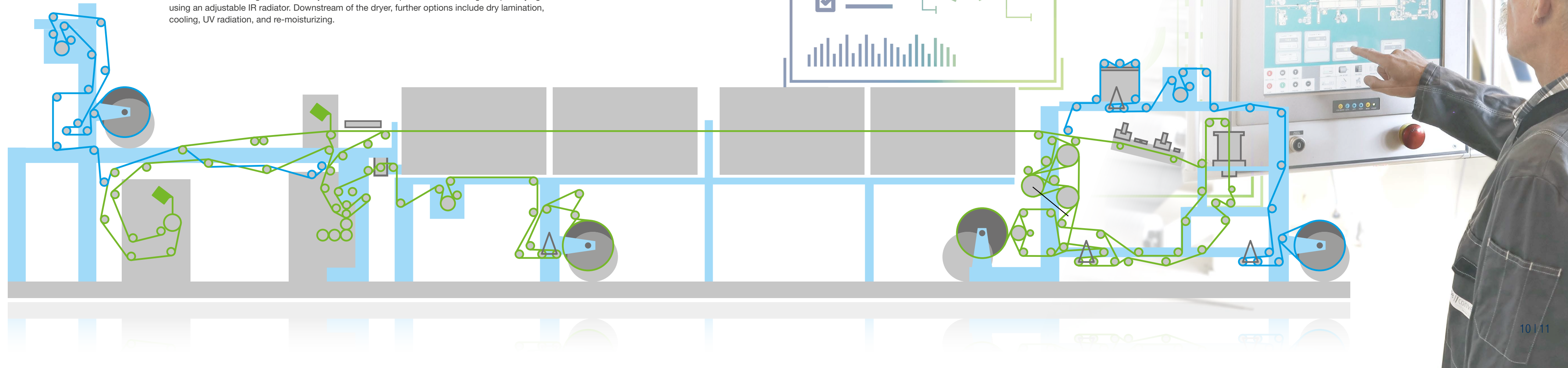
Challenge us and benefit from proven OLBRICH know-how that was gained from countless applications for multilayer products.

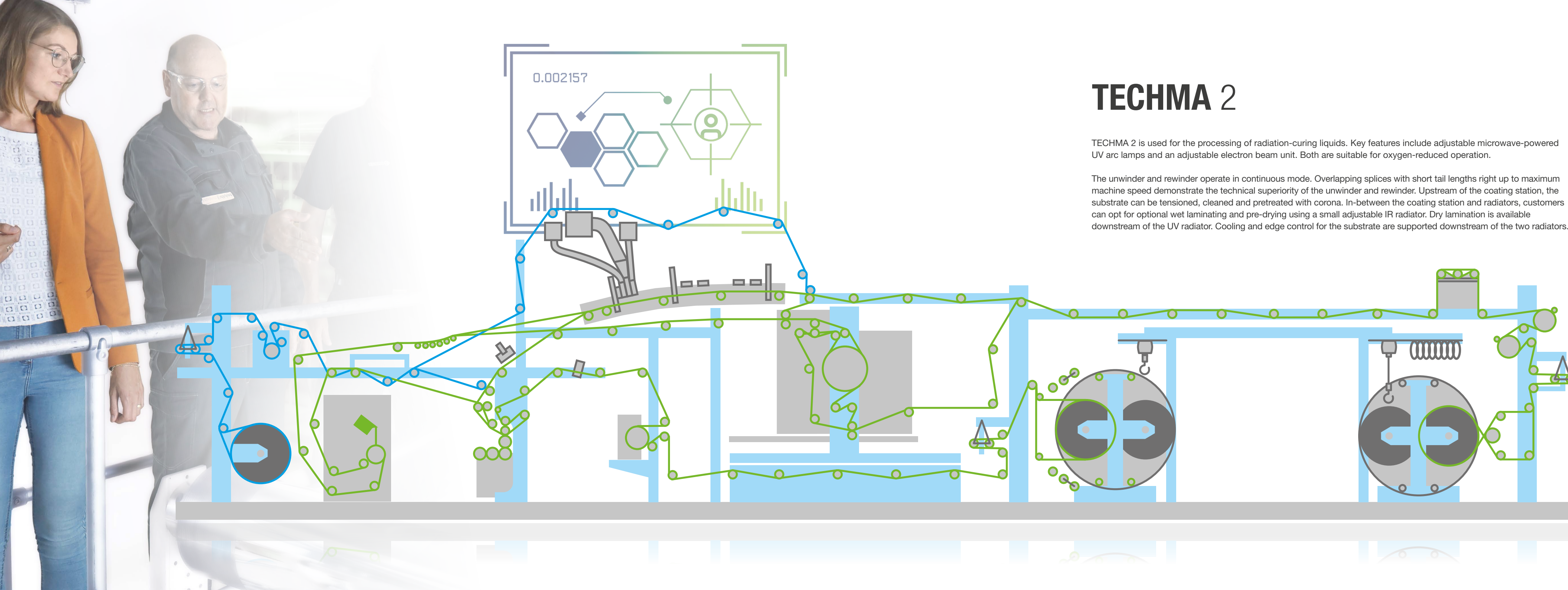


TECHMA 1

The centre piece of TECHMA 1 is the thermal dryer that comprises four zones, each three meters long, which can all be used as both support roll or floatation dryers. The blow-out speed and temperature of the air above and below the substrate can be set over a broad range. The unwinder and rewinder operate in stop-and-go mode. Upstream of the coating station, the substrate can be tensioned, cleaned and pre-treated with Corona.

In-between the coating station and dryer, customers can opt for wet laminating and pre-drying using an adjustable IR radiator. Downstream of the dryer, further options include dry lamination, cooling, UV radiation, and re-moisturizing.





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TECHMA 2

TECHMA 2 is used for the processing of radiation-curing liquids. Key features include adjustable microwave-powered UV arc lamps and an adjustable electron beam unit. Both are suitable for oxygen-reduced operation.

The unwinder and rewinder operate in continuous mode. Overlapping splices with short tail lengths right up to maximum machine speed demonstrate the technical superiority of the unwinder and rewinder. Upstream of the coating station, the substrate can be tensioned, cleaned and pretreated with corona. In-between the coating station and radiators, customers can opt for optional wet laminating and pre-drying using a small adjustable IR radiator. Dry lamination is available downstream of the UV radiator. Cooling and edge control for the substrate are supported downstream of the two radiators.

TECHNOLOGY FACTS

BA1

Unwinder, single station design,
for up to 800 mm reel diameter

Coating technologies

- Reverse roll coater RRC
- Roll coater RC
- Knife over roll coater, direct and indirect
- Knife over air or over rubber blanket
- Mayer bar
- Slot dies with extrusion-/curtain-/bead-mode
- Gravure printing, Flexographic printing
- Screen printing (rotating)
- Doctor chamber system
- Pressurized doctor chamber system PGS or HM
- Gravure coating direct/indirect with lacquer pan

Dryer

- High performance convection oven
for all coating compounds
- 4 x 3 m zones with upper- and lower air, max. 250° C
- Variable nozzle systems and flexible web support

Embossing

- Embossing technology with IR-heating and
temperature controlled idler rollers

Further features

- Corona pre-treatment
- UV-lamp system
- Gelling processes (for instance for E-PVC)
with gelling cylinder
- IR-heating or gelling oven
- Wet-/dry-lamination for multilayer products

BA2

Unwinder, single station design,
for up to 1,000 mm reel diameter

Pre-conditioning of the product
by heating-/cooling rollers

Corona system for optional pre-treatment of products

Combined coating machine with sleeve roller and
OLBRICH cartridge technology

- Direct and indirect mode
- Forward or reverse coating
- Cartridge with RRC system and smooth rollers
- Cartridge with RC system and smooth rollers
- Gravure coating cartridge with hachure roller and
- OLBRICH pressurized doctor chamber system

High performance convection oven (4 zones) and
additional heating-/cooling zone, each zone of 3 m length,

- Variable nozzle systems
- Flexible web support systems
- Humidity detection and control of recirculation air

Integrated online multilayer thickness
measurement system (optical)

Laminating station for two material webs,
with lowest web tensions

Automatic turret rewinder with orbital function
and contact roller

PLA1

- Unwinder, single station design,
for up to 800 mm reel diameter, with web guiding
- Three auxiliary unwinders
for reel diameters of up to 500 mm

Coating system

- Coating unit for adhesives (with gravure roller)
in case of wet lamination

Laminating

- Thermal lamination of multilayer products
via central laminating cylinder
- Individual path for each material web and
independent control of web tensions
- Temperature control via separate pre-heating rollers
- Main heating cylinder as central laminating cylinder
for up to three layers, with IR support

Embossing

- Embossing technology with IR-heating and
temperature controlled idler rollers (driven)
- Individual drives for embossing roller
and back-up roller
- OLBRICH in-register embossing technology
with camera system for visual control

Conditioning

- Cooling train with separate temperature control loops
and drive systems

Rewinder

- For reel diameters up to 800 mm, with web guiding

TECHMA 1

- Solvent-free and solvent based coatings
- Thermal drying/curing
- Line speed: 10 – 1,000 m/min.
- Substrate width: up to 840 mm

Components

- Unwinder
- Corona
- Web cleaner
- Coater
- Curtain coater
- Laminator unwinder
- Laminator
- Dryer
- Web edge controller
- Cooler
- Re-moisturizer
- Rewinder

TECHMA 2

- Solvent-free coatings
- Radiation curing
- Line speed: 10 – 1,525 m/min.
- Substrate width: up to 840 mm

Components

- Unwinder
- Corona
- Web cleaner
- Coater
- Curtain coater
- Laminator unwinder
- Laminator
- IR radiator
- Dryer
- UV radiator
- EB radiator
- Web edge controller
- Cooler
- Re-moisturizer
- Rewinder

TWO POWERFUL BRANDS





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