

# Create intelligent solutions.

# PRODUCTION LINES FOR SELF-ADHESIVE FILM/FOIL AND PAPER



#### **ABOUT US**

OLBRICH is the leading European supplier of production equipment and machinery for the finishing of selfadhesive films and papers.

Machine and plant technology from OLBRICH sets standards worldwide: Not only in terms of efficiency, productivity and precision, but also in terms of the variety of possible applications. Your advantage: Our specialists design each machine and system exactly to your individual requirements, so that you achieve maximum reliability and minimum waste in the production of selfadhesive films and papers. From the concept stages of coating, lacquering, laminating and drying processes via the design through to the assembly and commissioning – OLBRICH is your single-source provider: from the inhouse manufacture up to the production support at your works.

That is what we call "create intelligent solutions".





OLBRICH Headquarters Bocholt, Germany. Founded 1949

Our Technical Centre: Coating line BA2

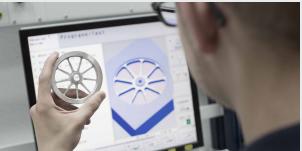
# Flexible Systems for Highest Demands.

PROCESS ENGINEERING TECHNICAL CENTRE R&D DESIGN PROJECT MANAGEMENT FABRICATION TURN-KEY INSTALLATION SERVICE PROCESS ENGINEERING TECHNICAL DESIGN PROJECT MANAGEMENT FABRICATION TURN-KEY INSTALLATION SERVICE PROCESS ENGINEERING TECHNICAL CENTRE R&D DESIGN PROJECT MANAGEMENT FABRICATION TURN-**KEY** INSTALLATION PROCESS ENGINEERING SERVICE TECHNICAL CENTRE R&D DESIGN **PROJECT MANAGEMENT FABRICATION TURN-KEY INSTALLATION TECHNICAL CENTRE R&D DESIGN PROJECT MANAGEMENT PROCESS ENGINEERING** FABRICATION TURN-KEY INSTALLATION SERVICE **PROCESS ENGINEERING TECHNICAL CENTRE | R&D** DESIGN PROJECT MANAGEMENT FABRICATION









# **OUR CUSTOMERS' PRODUCTS:**

- Adhesive tapes
- Protective films
- Films for the packaging industry and the sanitary 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



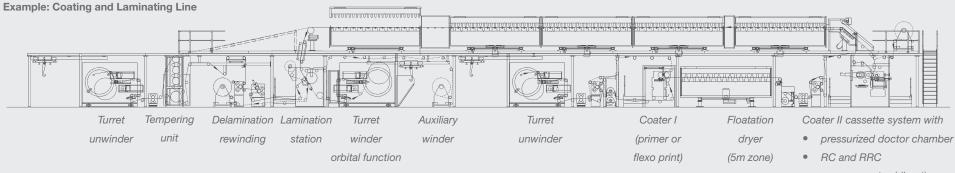
## **LINE CONCEPTS**

From the concept stages of a great variety of coating, lacquering, laminating, drying and winding processes via the design through to the assembly and commissioning OLBRICH is your overall system supplier. Of course "custom made" for your individual products and production processes. Our extensive expert team of applications engineers, designers, electrical engineers, project managers and field technicians accompanies the customer from the first draft up to the production support. OLBRICH is your single-source provider. We can supply the versatile technology to meet the varying requirements of our many different customers. At the same time, we also realize remarkable innovations for our customers in the film industry – for example, the world's widest protective film line with a width of 3.5 m.

#### Line concepts:

- Coating- and laminating lines
- Coating- and laminating lines for hot melt systems
- Lines for clean room application
- Laboratory- and pilot plants

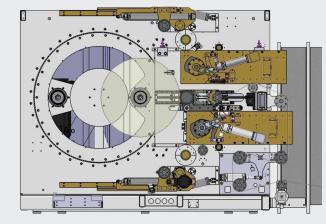




• gravure coater (direct)

#### **UNWINDERS AND WINDERS**

Single winders or fully automated turret winders, for continuous or discontinuous operation: our specialists focus on the greatest possible protection of the material when designing your systems: for the lowest possible load on your products and minimum losses. With working widths of 300 to 3,500 mm and roll diameters of up to 1,500 mm, speeds up to 500 m/min. and more are possible with OLBRICH systems. Precisely adjustable web tensions and uniform contact forces lead to the highest winding quality for a wide range of materials. Our proprietary orbital winder sets the benchmark for gentle winding of delicate materials with lowest distance between the winding shafts.



Exemplary winding technologies:

- Turret winders for continuous operation
- Orbital winders
- Shafted or shaftless design
- Splicing equipment
- For all kind of substrate materials even for surface-sensitive and tension-sensitive films, papers, foam films and other materials
- Pneumatic or motorized cutting knife
- Rotating knife chain, rotary knife, turn-up-free feeding (rewinder)
- Residual length optimization (unwinder)
- Tension control and reduced linear or hyperbolic (option) rewind tension by increasing reel diameter
- Adjustable range from 0% to 80%
- Perfect Rewound
- Smooth reel even with difficult and slippery materials
- Automatic loading and unloading
- · Contact and circumferential rewinder for sensitive films and papers
- Winding also without gluing to the shaft

#### **Options:**

- Automatic loading and unloading
- Winding also without gluing to the core
- Wrapper for jumbo bales









### COATING

When it comes to coating self-adhesive films/foils and papers, many world market leaders rely on OLBRICH – because we make brands possible. Our specialists develop plants and machines for you for all conceivable coating variants whether it's coating with dispersions, with solvent systems, hot-melt or 100% (UV) systems, whether it's open, multi-layer or special-function coatings. With coating technologies "made by OLBRICH" you rely on safe processes in the production of your products. Auxiliary supplies can include adhesive feeding systems, closed loop control of the coating nips, conditioned environment and humidity control, explosion protection cabins and many more.

OLBRICH is also a pioneer in cassette systems for modular coating machines: short set-up times and fast product changes per module for your economic benefit. The OLBRICH cassette technology with different coating modules enables various coating techniques in just one coating machine. Our coating machines are suitable for working width from 300 mm to 3,500 mm and speeds (mechanical) from 1 m/min to 800 m/min.

Inspiring engineering – convincing technology!

Most common technologies are:

- Gravure roller coating (direct, indirect)
- Reverse gravure with pressurized doctor chamber system, type PGS or HM
- Die coating (extrusion or beat mode), curtain coating (stripe and pattern)
- Mayerbar (rolling bar)
- Kiss coaters
- Screen coaters
- Roll coaters (RC) and
- Reverse roll coaters (RRC)
- 5-roll coaters
- Comma bar (with deflection compensation "Mycrocoat")
- Knife over roll coating
- And many more.
- Those technologies are available with our combined coating machine and the OLBRICH cartridge technology.







## DRYING

With our solutions for drying self-adhesive films/foils and papers, you can rely on the highest quality, maximum safety and optimum energy efficiency.

As we design every system and machine precisely for your products, you always achieve uniform and gentle drying results over the entire width and length. Also with thin and tension-sensitive products. Driers are available for dispersions and/or solvent/ex operation and working widths of 300 mm to 3,500 mm.

Depending on customer requirements, different top and bottom nozzles are available, including CTS and Vacutex® technology. Advantages in this process are the advanced web stability and highest flexibility as well as perfect web stability due to patented design (venturieffect). You also benefit from wide operating window, straight and soft passage of the web through the entire drier, no or minimum shrink of films due to lowest web tensions, perfectly even air and temperature distribution and perfect lay flat – no curl. Our TP nozzles allows for tool-less change from tangentional to impingement mode – a perfect way to avoid uncontrolled emporation and defects.

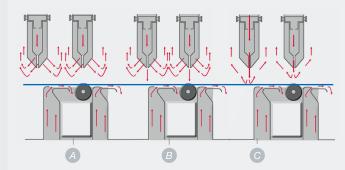
#### Major advantages are

- wide variety of dryer and nozzle configuration
- Clean room and GMP drier and/or FDA standard
- internal or external recirculation air ducts
- best accessibility and easy to clean (even heat exchangers)
- floatation driers with special OLBRICH floatation
  nozzle technology
- web guiding by rollers, air floatation nozzles or belt for gentle material transport and scratch prevention
- energy source: oil, gas, steam or electric heating
- Nozzle air outlet speed: up to 30 m/s, uniform distribution of temperature +/- 1° K

#### **Options:**

- · Conditioned fresh air, upstream recirculating air filter
- Exhaust air heat recovery
- Low-friction rollers (< 10 g)
- Separate temperature adjustment for upper and lower air
- Infrared heating field drier
- Plate drier
- Recirculating air moisture measuring and control
- Surface temperature measurement
- Solvent concentration measurement
- Design as per EN1539
- Integrated fire extinguisher system,
- Exhaust air treatment





Dryer configuration with OLBRICH CTS lower air nozzle/TP upper air nozzle

- A:
  - Adjustable drying process for high
  - Efficiency and product quality
- B:
- Adjustable heat transfer coefficient
- No bondary layer
- Large air quantity for solvent removal
- C:
- Heat transfer coefficient is high and cannot be influenced
- Formation of bondary layer



