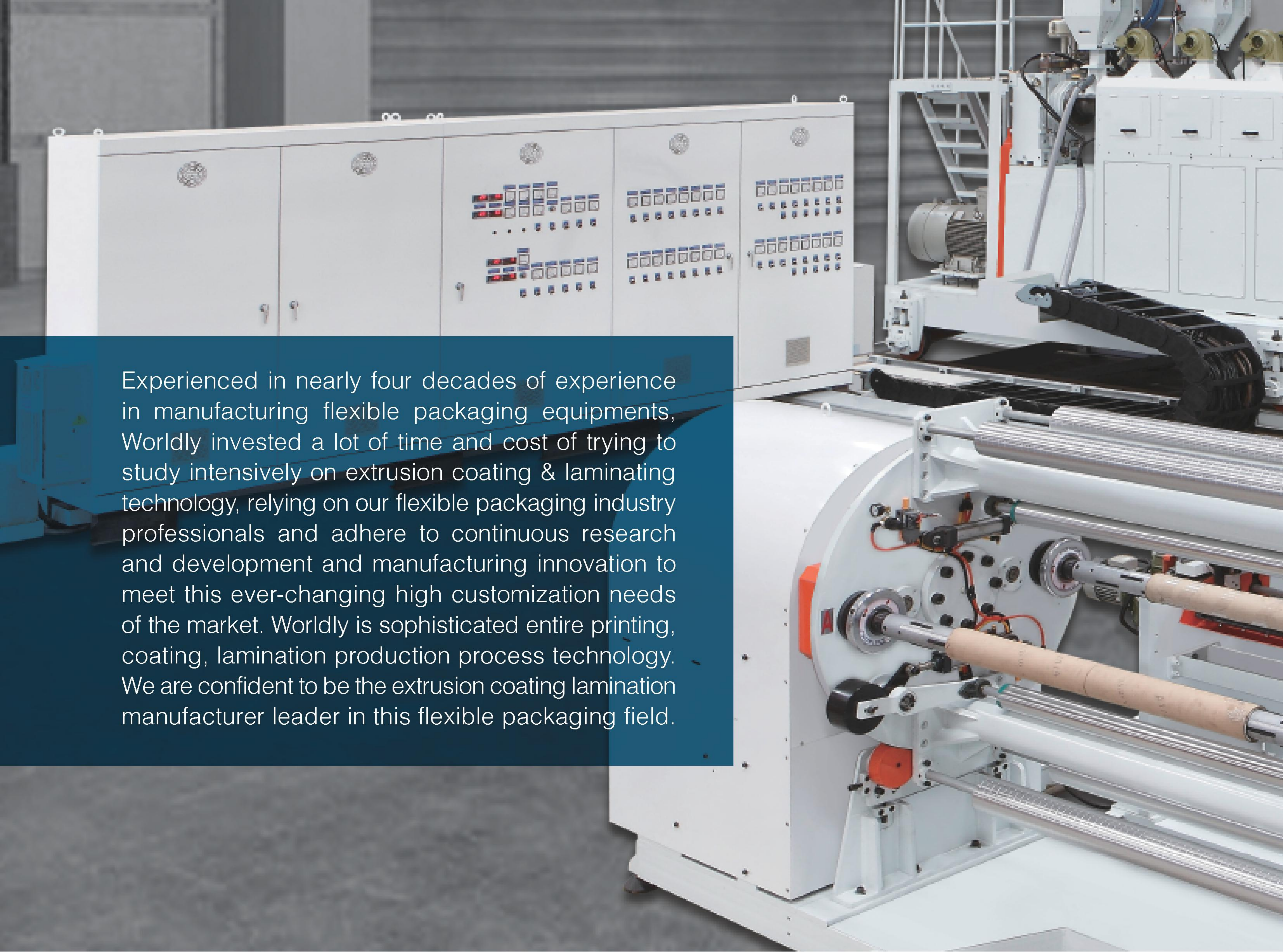




# Extrusion Coating & Laminating Machine



Experienced in nearly four decades of experience in manufacturing flexible packaging equipments, Worldly invested a lot of time and cost of trying to study intensively on extrusion coating & laminating technology, relying on our flexible packaging industry professionals and adhere to continuous research and development and manufacturing innovation to meet this ever-changing high customization needs of the market. Worldly is sophisticated entire printing, coating, lamination production process technology. We are confident to be the extrusion coating lamination manufacturer leader in this flexible packaging field.

## General Specifications

| Machine Model       | WEL   | WCL                                  | WEL-DT                               |
|---------------------|---|--------------------------------------|--------------------------------------|
| Machine Type        | Mono  | Co-Extrusion                         | Tandem                               |
| Substrate           | PET, BOPP, CPP, LDPE, Nylon, Alu-Foil, Paper, Nonwoven Fabric |                                      |                                      |
| Resins              | LDPE, LLDPE, PP, EVA, EAA, EMAA, EVOH, Surlyn                 |                                      |                                      |
| Lamination Layers   | 2-3   | 2-5                                  | 2-9                                  |
| Web Width           | 600-2200mm  |                                      |                                      |
| Extrusion Thickness | 10-50 micron  |                                      |                                      |
| Line Speed          | 200 m/min   | 270 m/min                            | 310 m/min                            |
| Production Speed    | 180 m/min   | 250 m/min                            | 300 m/min                            |
| Extrusion Output    | PE:250-280 kg/hr<br>PP:180-250 kg/hr                          | PE:280-320 kg/hr<br>PP:250-280 kg/hr | PE:350-400 kg/hr<br>PP:280-320 kg/hr |
| Screw Diameter      | Ø60mm / Ø90mm / Ø100mm / Ø125mm                               |                                      |                                      |
| Screw L/D           | 32:1  |                                      |                                      |
| Cooling Drum        | Ø600mm / Ø700mm / Ø800mm                                      |                                      |                                      |
| Material Loading    | Ø600mm / Ø800mm / Ø1000mm                                     |                                      |                                      |

\* All pictures and technical specifications are for reference only.



## Product List



Butter Wrappers



Snacks Food



Instant Noodles



Alcohol Swabs



Cosmetic



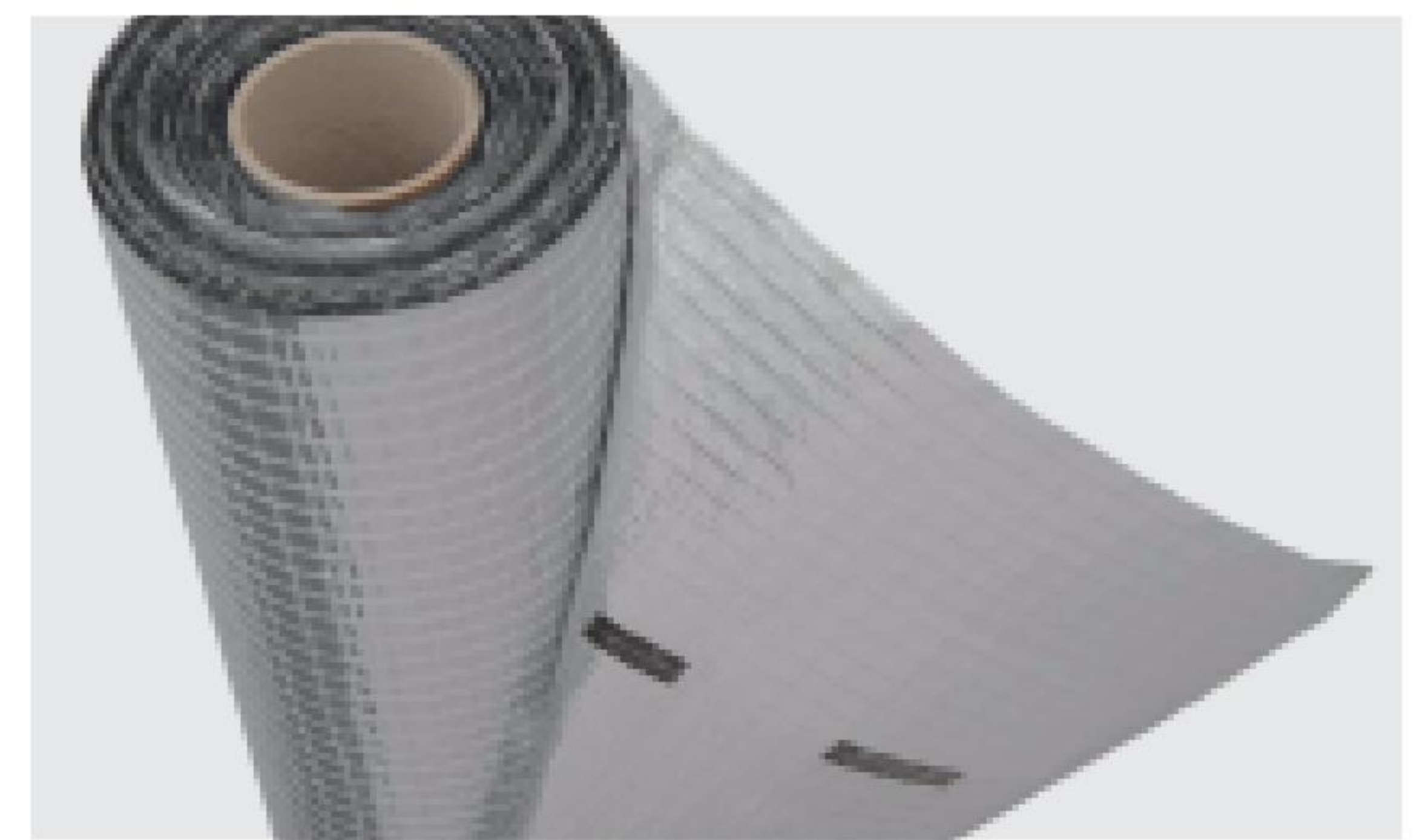
Strip Foil



Cup Lid



Tea Bag



Roof Insulation

# Mono Extrusion Coating & Laminating Machine

## WEL Series

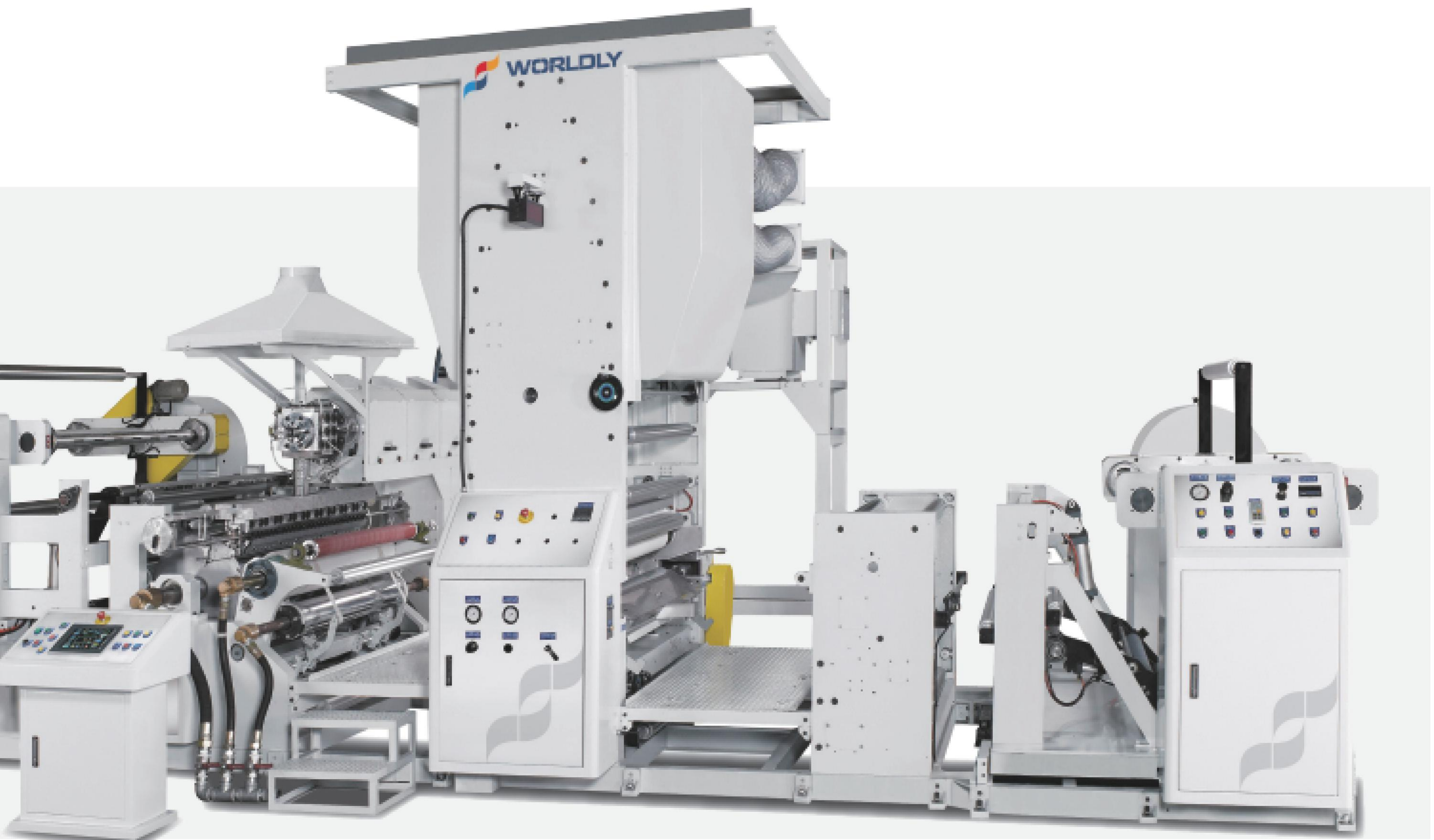
Worldly extrusion coating lamination machine is well-known in the flexible converting machinery from Taiwan. To cater most of low-waste packaging market our mono extrusion coating & lamination machine has very compact structure design. In order to save the wastage of web path & minimized the film threading time. The machine adopt leading brands T-Die to ensure the stable performance & constant high quality coating gauge. The screw and barrel has strict designed & treated to achieve well mixed of resin. Whole machine automation and tension with PLC control and all un/rewinders with nonstop turret auto splicing. The operation of the machine is very simple and user-friendly.

The high speed version of mono extrusion coating & lamination machine adopted more advance equipment, such as auto air gap adjustment unit and auto water temperature control device. Those extra function allow to saving many operation procedure during the production. Thus the operator can be more concentrated on major operation and enhance the finished product quality. This type of machine is suitable for more high productivity demand.



# High Speed Mono Extrusion Coating & Laminating Machine





## WEL-H Series

### Application

PET, BOPP, CPP, LDPE, Nylon, Alu-foil, Paper, Nonwoven fabric.

### Specifications

| Model                 | WEL                          | WEL-H     |
|-----------------------|------------------------------|-----------|
| Maximum Machine Speed | 200 m/min                    | 270 m/min |
| Laminating Speed      | 180 m/min                    | 250 m/min |
| Web Width             | 1000 mm / 1300 mm            |           |
| Material Diameter     | Ø600 mm / Ø800 mm / Ø1000 mm |           |

\* All pictures and technical specifications are for reference only.

# Co-extrusion Coating & Laminating Machine

## WCL Series

In this fast changing packaging market the multi-layer laminates demand has increased. The Co-extrusion machine allows to use two kinds resin or more by two or more extrusion units to create multi-function extrusion layers. The variety of resin after melted and go through the feed block then join into the T-die. The side screw has corrosion resistance treatment. It is fine to work with acid copolymer resin, such as EVA, EAA, EMAA and Surlyn etc. The barrel heated by ceramic heater to ensure more energy saving and short start up time. Worldly also developed the exclusive extrusion output control system with Germany leading dosing system company. So it provides very accuracy and stable output and coating gauge control during the production. It can save more material especially for long run job.

The high speed H series version of the rewinding splicer adopted with tracking roller device. It provides two kinds gap & contact winding mode and gives uniform and perfectly straight finished winding during high speed running. Also the taper tension can proper control the winding from the beginning roll. So it can reduce the wastage and avoid the wrinkle generate at the inner roll.



# High Speed Co-extrusion Coating & Laminating Machine





## WCL-H Series

### Application

PET, BOPP, CPP, LDPE, Nylon, Alu-foil, Paper, Nonwoven fabric.

### Specifications

| Model                 | WCL                          | WCL-H     | WCL-HI    |
|-----------------------|------------------------------|-----------|-----------|
| Maximum Machine Speed | 200 m/min                    | 270 m/min | 310 m/min |
| Laminating Speed      | 180 m/min                    | 250 m/min | 300 m/min |
| Web Width             | 1000 mm / 1300 mm            |           |           |
| Material Diameter     | Ø600 mm / Ø800 mm / Ø1000 mm |           |           |

\* All pictures and technical specifications are for reference only.

# Extrusion Coating & Laminating Machine Tandem Type

## WEL-DT Series



The tandem type extrusion coating laminating machine has inline two extrusion units with three unwinders. It allows to produce five layers laminates in one go. It can save the semi-finished goods shifting time and optimize the ratio of utilization operating. It is suitable for production on large scale and multi-layer jobs. Worldly tandem machine has very compact and user-friendly design. So operator can easily manage the operation even though the machine has numerous

stations. Thanks to the Worldly exclusive EBR internal deckle design it can reduce the trim wastage and operator can be more concentrated on the major operation without break down.

### Application

PET, BOPP, CPP, LDPE, Nylon, Alu-foil, Paper, Nonwoven fabric.

### Specifications

| Model                 | WEL-DT    |
|-----------------------|-----------|
| Maximum Machine Speed | 200 m/min |
| Laminating Speed      | 180 m/min |

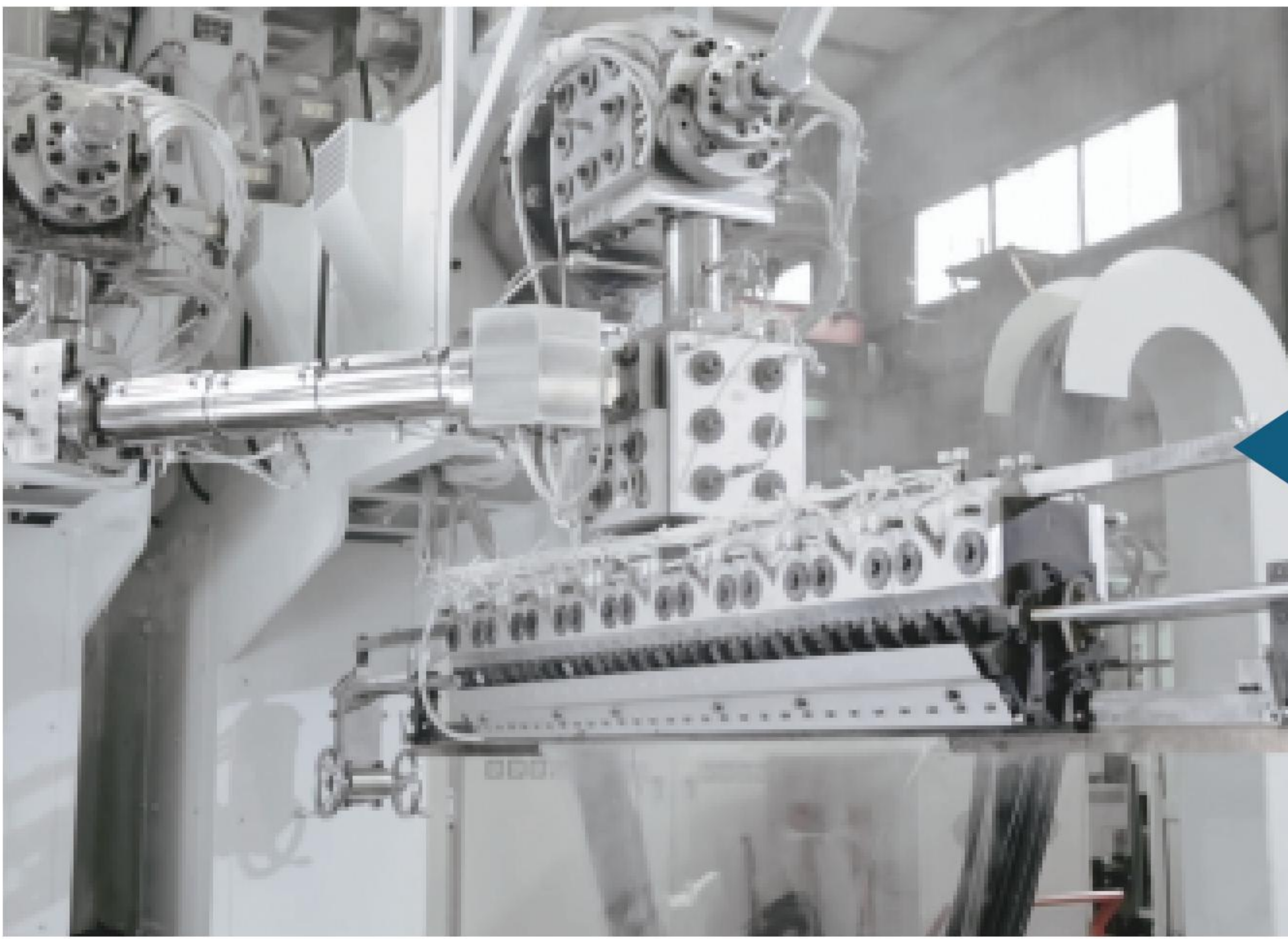
| Model             | WEL-DT                       |
|-------------------|------------------------------|
| Web Width         | 1000 mm / 1300 mm            |
| Material Diameter | Ø600 mm / Ø800 mm / Ø1000 mm |

\* All pictures and technical specifications are for reference only.





Dual AC units type



### High Quality T-Die

Owing to the power of our knowledge on extrusion lamination base on involving in flexible package industries for many years. In addition, We have been cooperated with one of the leading Japan company to research together and developed the most maturity T-Die suitable for flexible package market. The raw material of die body always select top quality steel and cure in the best condition, also via annealing and anti-corrosion treatment in order to express high stable performance and extrusion gauge control.

### Automatic Gravimetric Dosing and Blending Control System

Worldly continually produces a variety of multi-layer co-extrusion lamination equipment and has jointly developed gravimetric dosing and blending control systems with a leading Germany partner. In pursuit of high precision dosing & blending as well as uniform gauge control we rely on our exclusive and sophisticated technology to developed in-line system for precise extrusion output control.

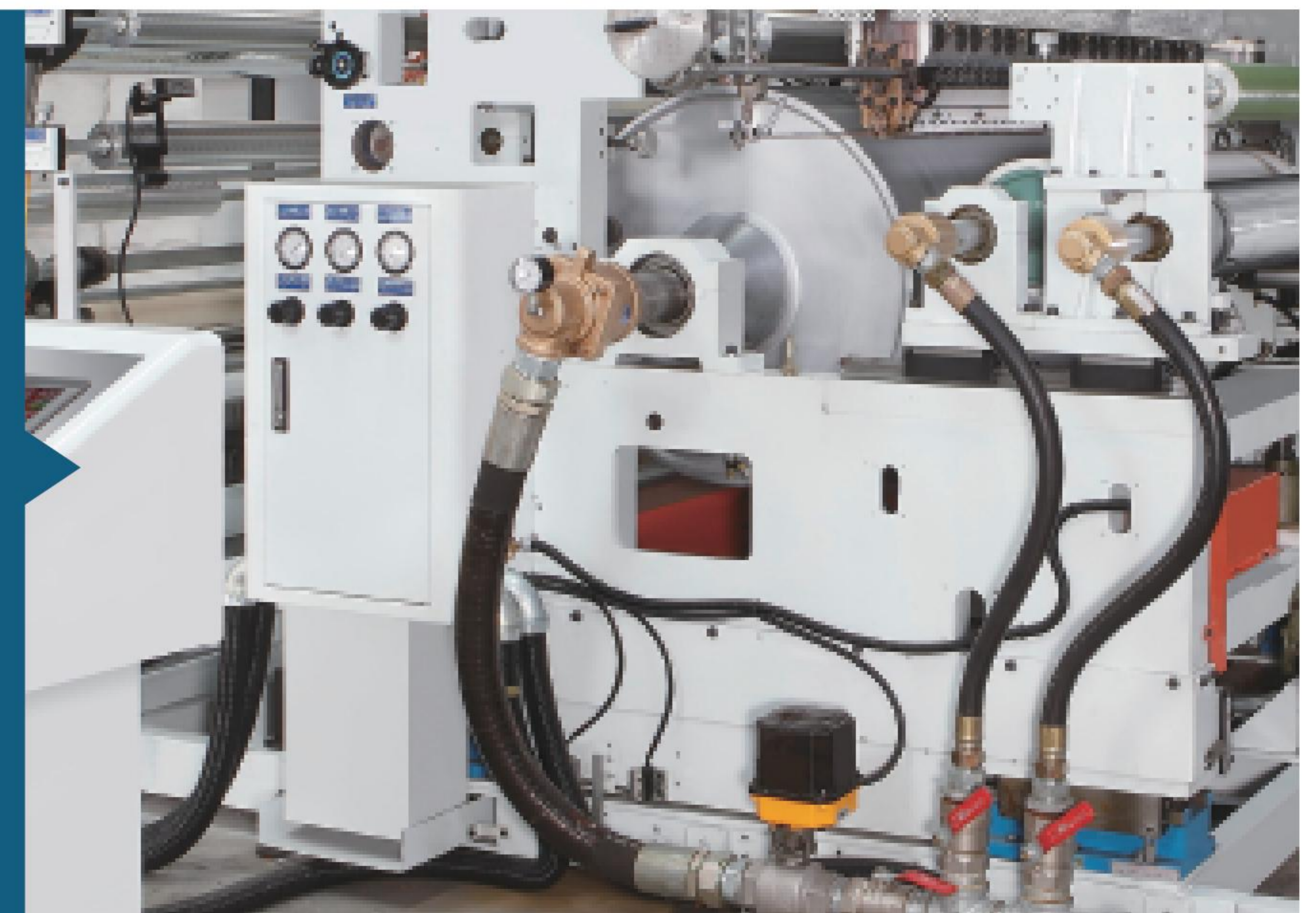


### Heat Recycling System - Anchor Coating Unit

Anchor coating unit has Worldly exclusive heating recycling design. It recycled the exhaust heat energy also saved the heating source power consumption. The internal of drying chamber with high efficiency nozzle provided more proper drying. The heating source available with electric, gas burner, thermo fluid and steam system. The gravure and flat roll or close chamber blade system all are available to meets customer requirements

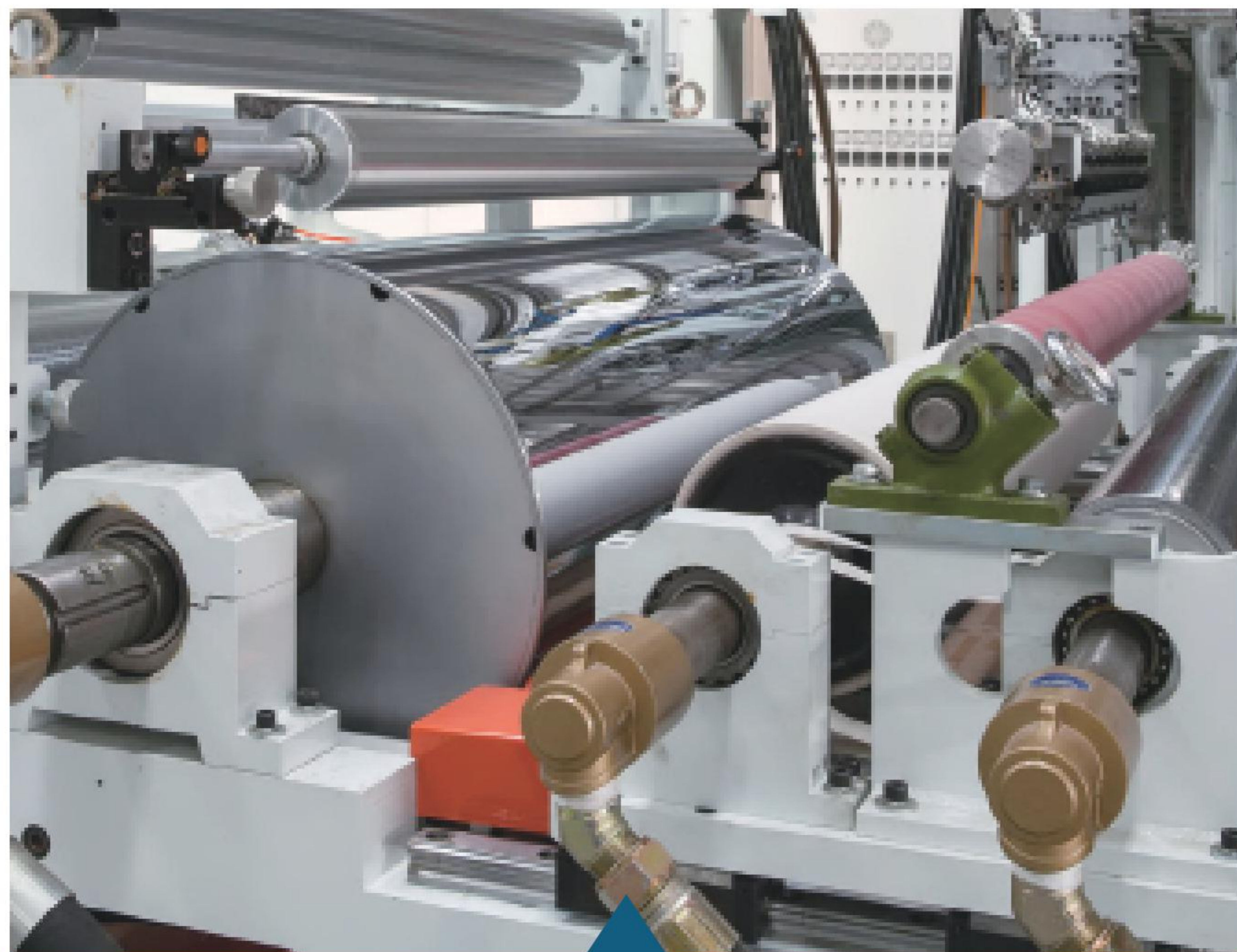
### Auto Air Gap Adjustment Unit

Our lamination unit has unique design. It combined the air gap adjustment function. The auto air gap adjustment can be easily observed in real time. According to different production speed the whole laminating unit can automatically moved in Y-axis and manual movement in X-axis during the machine in operation. Depending on the working condition of products, the air gap & nip position also can be manual adjusted.



### Auto Water Cooling Control Device for Cooling Drum

In order to solve the temperature variation problem of the cooling drum, we designed a device that controlled by a PLC program with auto water regulator. The temperature is detected by an infrared sensor focused on the cooling drum surface. The advantage is the operator can concentrate on the major production issues and it reduces the risk of human errors. Our goal is to maintain high performance and efficiency with excellent production results.

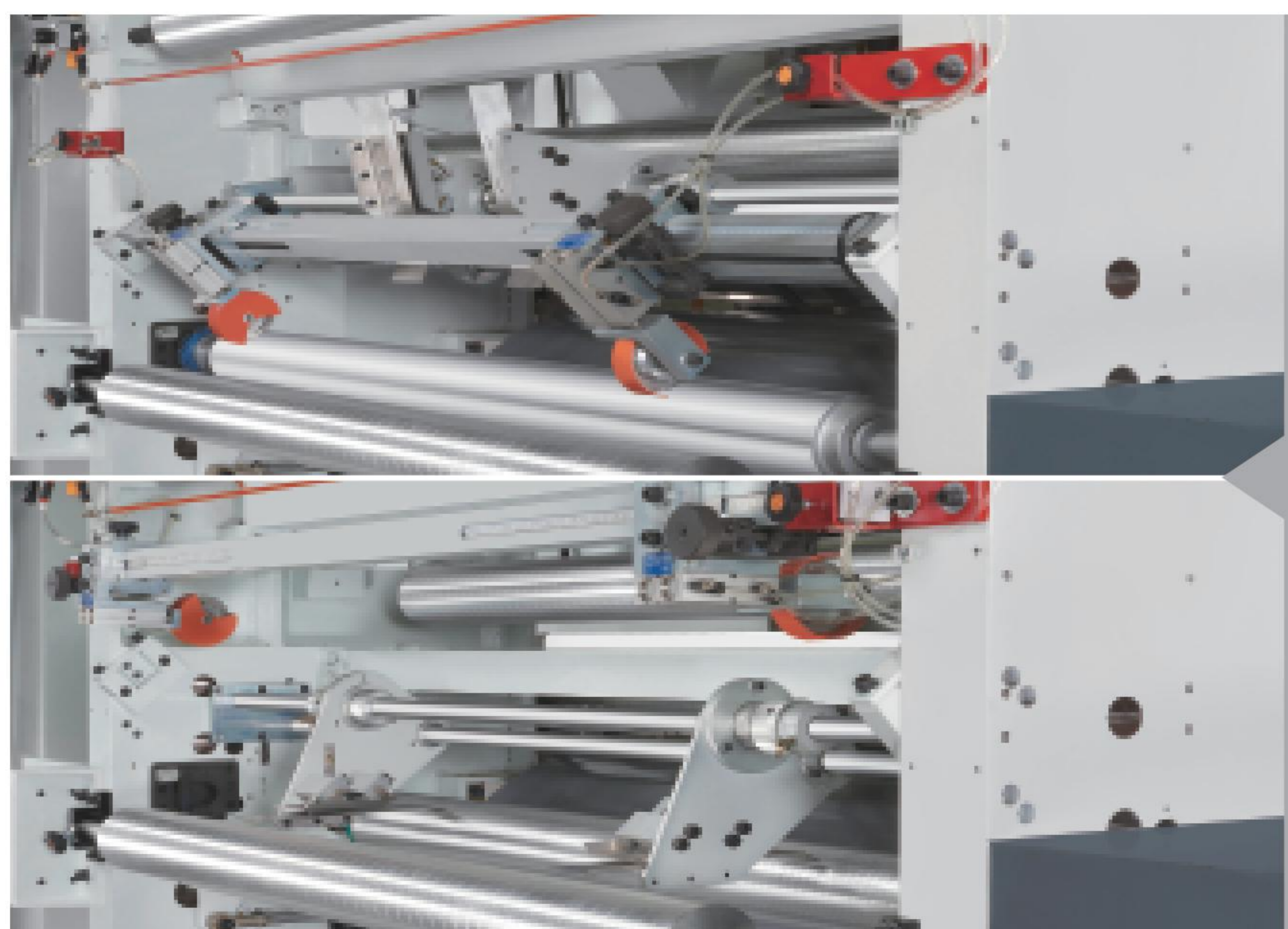


### Cooling Drum Internal Water Flow Design

To get uniform temperature control of cooling surface and high efficiency water circulation. The internal of cooling drum has special circuitous shape design to improve and reduce the in/outlay side temperature difference. It gives the best cooling efficiency to maintain the temperature in  $\pm 1^{\circ}\text{C}$ . The cooling drum size is available from 600-800mm diameter depending on the production speed. Quick joints allow fast change over for cooling drum and silicon roller.

### Exclusive Trimming-less Deckle Design

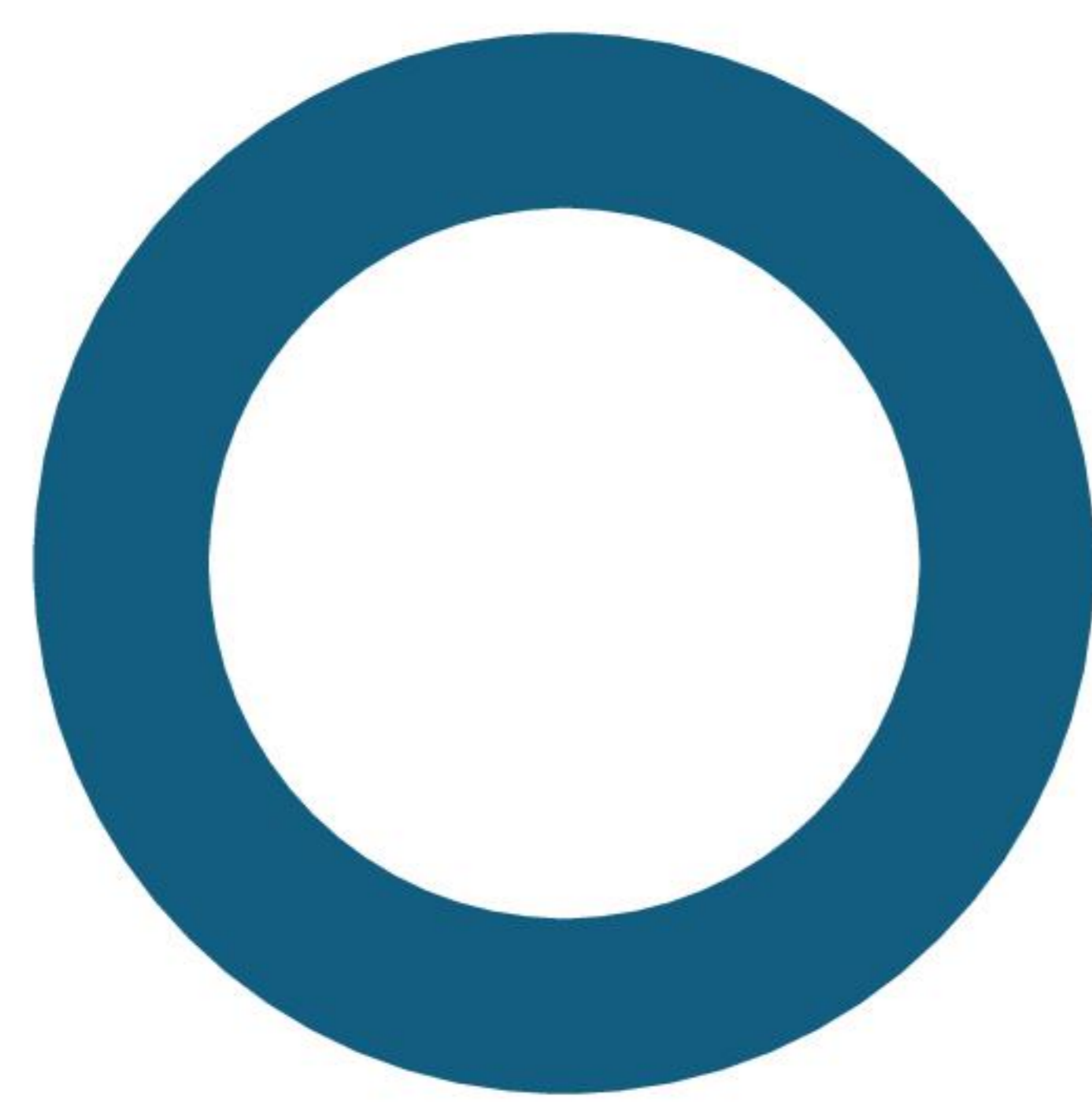
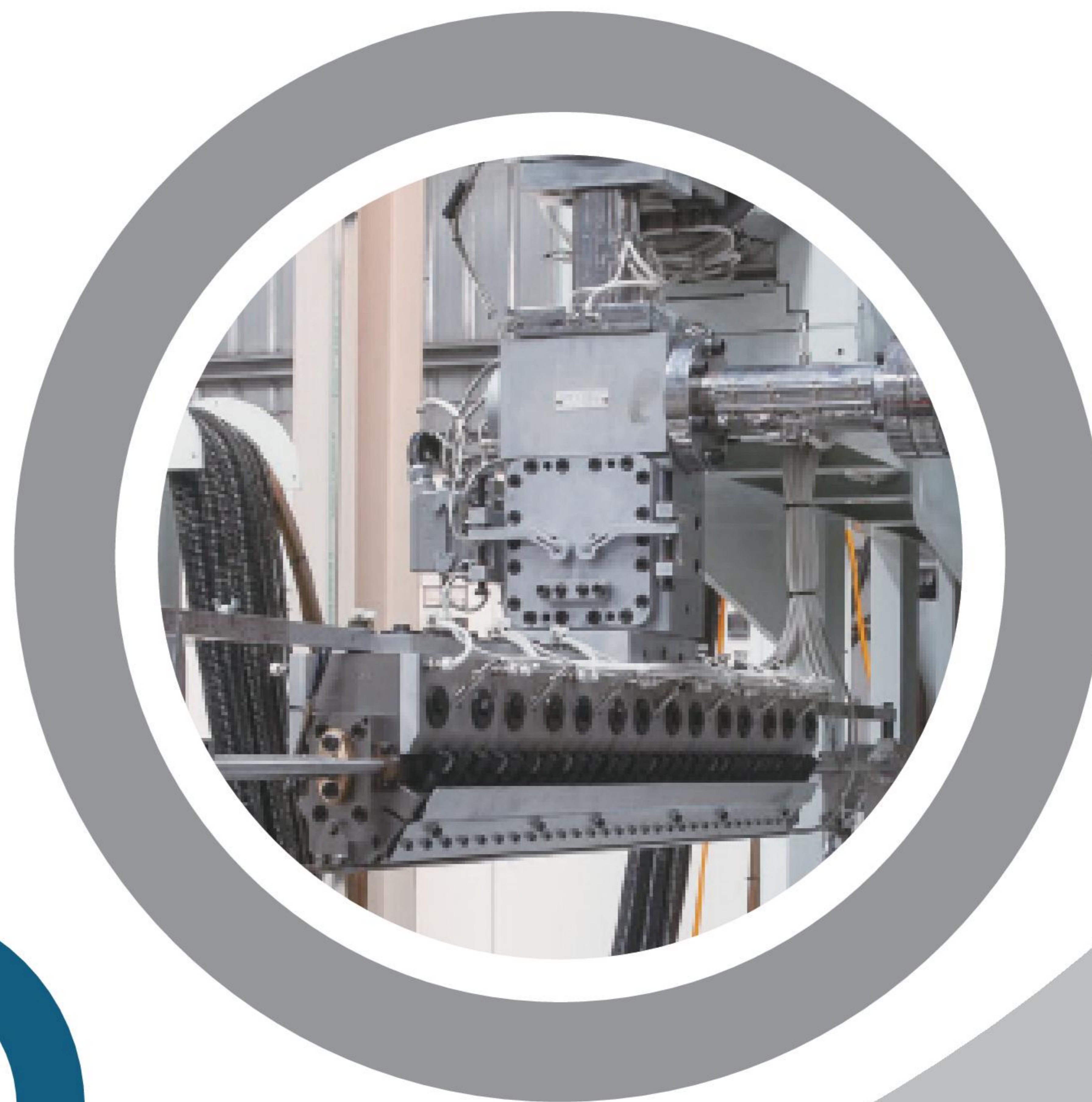
Edge beading and trim winding are always big challenges on extrusion lamination process. Based on years of experience accumulation and testing. Worldly developed exclusive design of inner deckle aims at trimming-less and low wastage for more production efficiently. For this reason, it's less trimming trouble especially when machine is running in the high speed. Thanks to this design the operator even can easily set up the trimming-less and get good result.



### Trimming Blade Online Quick Changing Device

The blade is used to trim waste scraps from the laminate because of the high speed production process. It gets worn out quickly so needs to be changed. In traditional machines, the production capacity reduces due to downtime very frequently. Worldly has designed a structure that can changes the blade without stopping the production process. This supports even higher speed of production and more safety operation. The trimming unit also available interchangeable with shear cutter type.

- Rotogravure Printing Machine
- Laminating Machine
- Coating Machine
- Extrusion Coating & Laminating Machine



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