



EXTRUSION  
ISO 9001-2008



# Co-Extrusion T-Die Series

## T-Die Cast PP Film Line

# Achieving *Higher Goals* with our **Experience!**

## Mono and Multi-Layer T-Die Cast Film Extrusion Line

With its outstanding optical and physical properties, either the mono or multi-layer cast film is being used in several applications. This is made possible through the high quality grade of materials and high precision processing equipment.

### Thickness Measurement System

This instrument helps obtain the best control for top quality film products via Beta ray, X-ray or Infrared sensor to detect gauge distribution across the web. It can also be combined with production management system to obtain quality control records.

### Oscillating Device

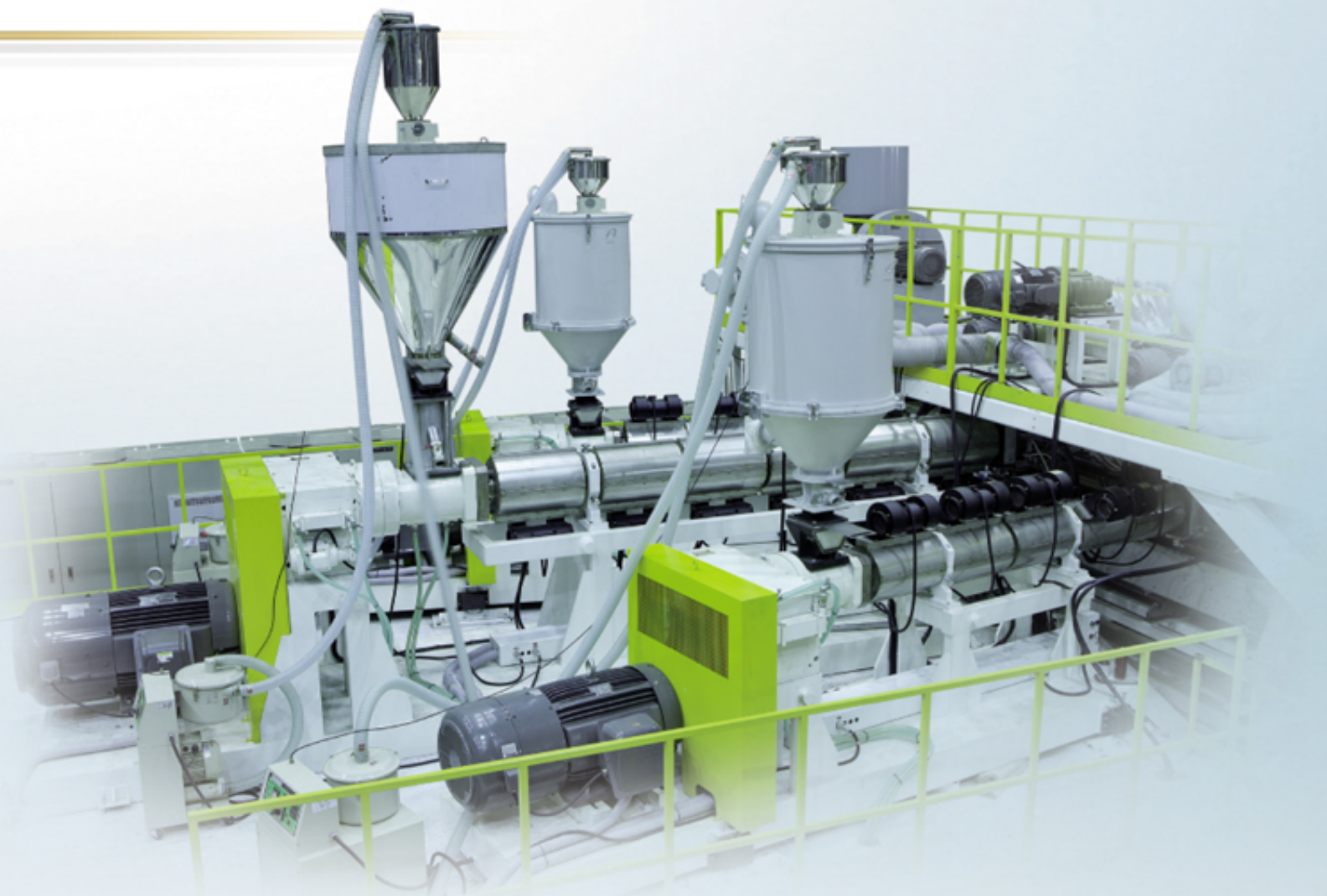
A device necessary to distribute the gauge band to different positions in order to obtain a perfect smooth film roll. Side slitting blade provided for the edge trimming, disposable piping and blower are provided along with the recycling system.



Model: FK/TCF-90/125/90-3400



Widely used in the packaging field, as flower wrapping, gift packing, stationery, and for flexible packaging like the lamination film used in extrusion coating or dry lamination. Or, with vacuum metallization to replace the aluminum foil for flexible packaging purposes or as decoration film with full color print. Three layer structure as A/B/C to save the cost for those high value polymers on the sealing or lamination layer (top and bottom) and at the same time, using the low cost materials as well as the trimmed edge and waste as the middle layer.



### Extruders

Screw with barrier flight design to ensure best mixing and plasticization. Barrel with nitriding treatment to ensure long running life. Temperature controller with PID control system to save energy and with the temperature control accuracy at  $\pm 1^{\circ}\text{C}$ .

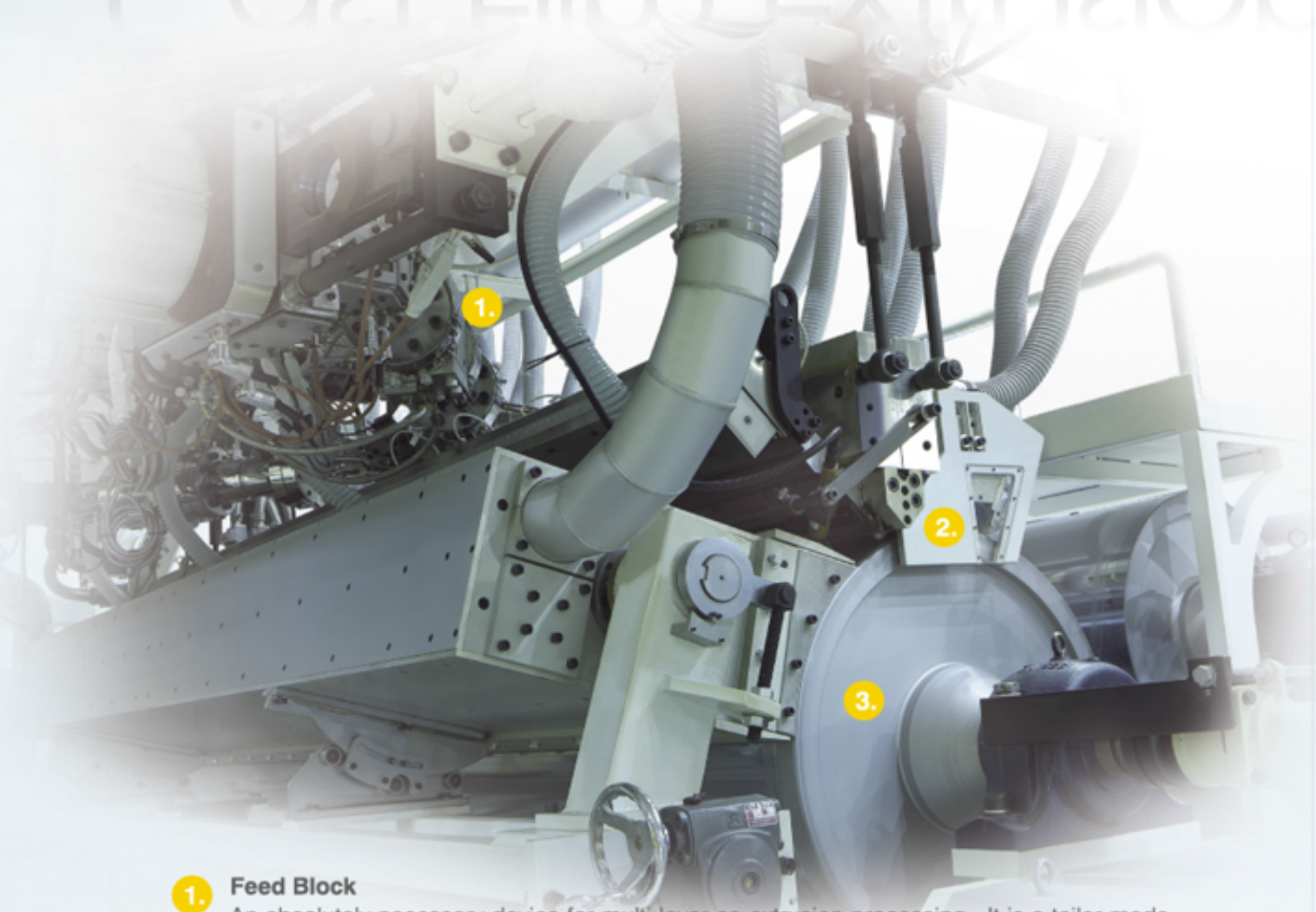
All three extruders sit on one common sturdy steel platform to give stable extrusion processing. Each extruder is equipped with screen changer controlled and operated by hydraulic cylinder which with the help of accumulator the screen can be changed in a second while lowering the working speed. A common power pack is provided for all three extruders allowing to run the screen changer one by one. Melt pressure gauge and thermo indicator are provided for each extruder before and after the screen changer.

Gear pump is an option for the extruder to ensure a stable and fixed extrusion output rate before entering to the feed block and T-die.



*Innovative Specialist in*

# Cast Film Extrusion



**1. Feed Block**

An absolutely necessary device for multi-layer co-extrusion processing. It is a tailor made design to fit each polymer. Made from heat treated and stress relieved stainless steel for added stability and even flow for each layer. Selector plug cartridge allows layer sequence change without disconnecting the die or feed pipes from the feed block.

**2. T-Die**

Designed for multi-layer processing, with computer aided flow geometry calculation to ensure low energy dissipation, reducing entrance effect and energy loss. Exclusive two stage pressure compensation preland provides optimum mass flow distribution across the die width. As an option, customers can add the Automatic Controlled Lip with the die bolts push/pull adjustment by heat / cool system in cooperation with Thickness Measurement System through Beta ray, X-ray or Infrared sensor.

**3. Chill Roll Casting Unit**

To achieve high cooling efficiency, different roll diameters are provided to satisfy each requirement on the working speed and width. Internal cooling circuit with double spiral channel to ensure the best cooling result. Each roll being dynamic and static balance treated and the surface with matte finish and hard chrome plated to give the best quality film processing.



#### Vacuum Chamber & Soft Box

To achieve the best casting result, a vacuum chamber to remove the air in between the die lip and roll surface to ensure no air is kept on roll surface causing the wrinkle and marks, with inverter controlled blower to adjust different ratio for best performance.

Incorporated with the Soft Box to push the film and fully contact to the roll surface in order to achieve even cooling results for stable speed and with high clarity on the film. Angle is adjustable, as well as the height.



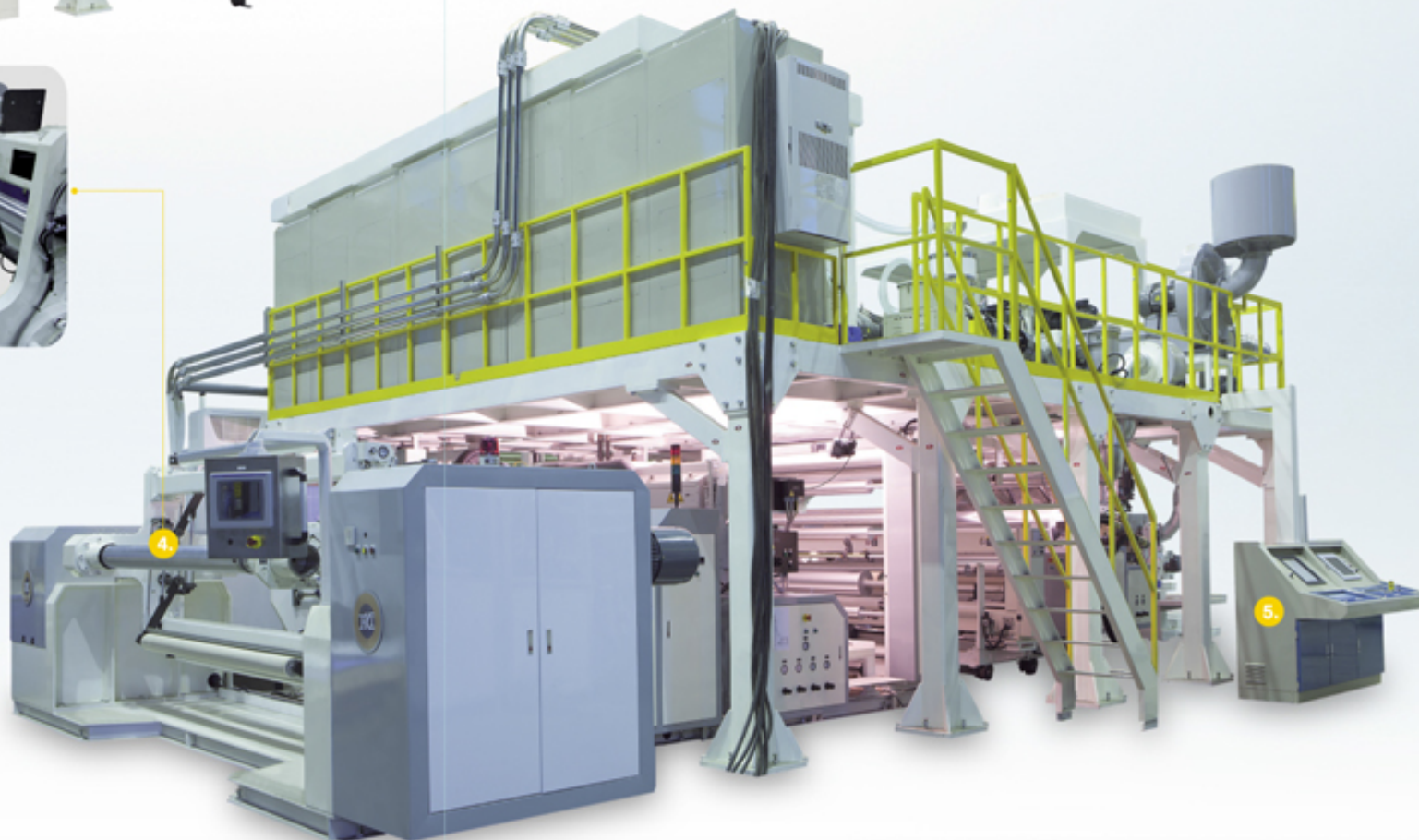
#### 4. Winder

A fully automatic turret type design winder with gap and contact function is provided to give best control on winding the film roll up to 1000mm diameter. Adhesive tape is not required for film roll change for long term saving on the tape. Taper tension control is there to give proper tension while roll is building to larger diameter. A separate suspension control panel provided by the winder for the control of change over, auto cut with preset winding length. Strong and sturdy steel frame structure gives smooth changes over at high working speeds.

#### 5. Electrical & Operation Panel

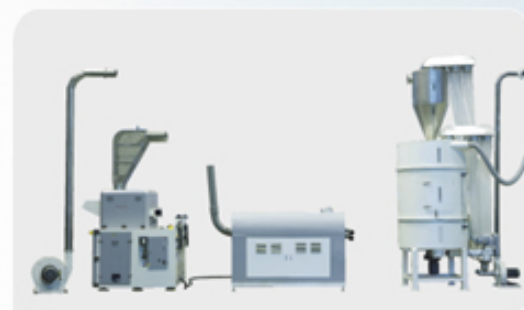
All electrical components are leading brands in the market. Operation panel such as piano type allows to put the control of the machine, gauging system all together for operator to work on.

Entire control system by HMI with touch screen color monitor indicating speed, tension, working temperature, melt pressure, etc. Working recipes can be saved for different job orders, and record for those default drive and malfunction like heater, etc. Internet connection is also available to link the system to the office for center control or to the machine supplier for trouble shooting or service.



#### Edge Trim & Waste Recycle System

Specially designed air return piping system with powerful suction blower to remove the trimmed edges to the crusher. Again the waste to be conveying to the silo then again fed into the middle extruder by forced feeding device. Entire system built as in-line system to ensure all waste to be fed back to the production line.



Co-Extrusion

# T-Die Cast PP Film Line



Specifications: CF for mono-layer. TCF for three-layer. FCF for five

MODEL	UNIT	FK/CF-100-1400	FK/CF-125-1800	FK/CF-125-2400
Resin		HOMO POLYMER		
Net film width	mm	1000 mm	1400 mm	2000 mm
Film thickness	mm	0.020 - 0.08	0.020 - 0.08	0.020 - 0.08
Production output	kg/hr	120~180	120~200	200~280
Screw diameter	mm	100	100	125
Main drive	HP	100	125	150
T-die width	mm	1300	1700	2300
Chill roll width	mm	1400	1800	2400
Chill roll diameter	mm	Ø600 mm		
Winder diameter	mm	Ø800 mm		

• All specifications, design and characteristics shown above are subject to change without prior notice.





layer film.

FK/TCF-100/65-2000	FK/TCF-125/90-2800	FK/TCF-75/125/75-2400	FK/TCF-75/125/75-2800	FK/TCF90/125/90-3400
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/ COPOLYMER POLYPROPYLENE

1600 mm	2400 mm	2000 mm	2400 mm	3000 mm
0.025 - 0.08	0.025	0.030 - 0.08	0.030 - 0.08	0.030 - 0.08
150-280	350-450	300-400	350-500	450-600
100/65	125/90	75/125/75	75/125/75	90/125/90
100/50	150/100	75/125/75	75/125/75	100/150/100
1900	2700	2300	2700	3300
2000	2800	2400	2800	3400

n / Ø2000 mm / Ø1000 mm

10 mm or Ø 1000 mm

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*An ISO 9001-2008 Company*

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**AGENT:**

