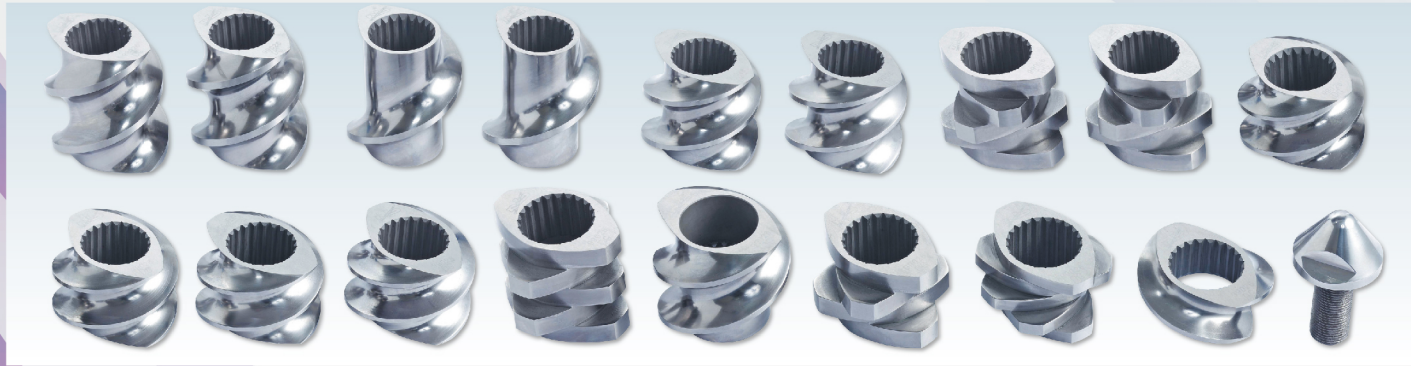
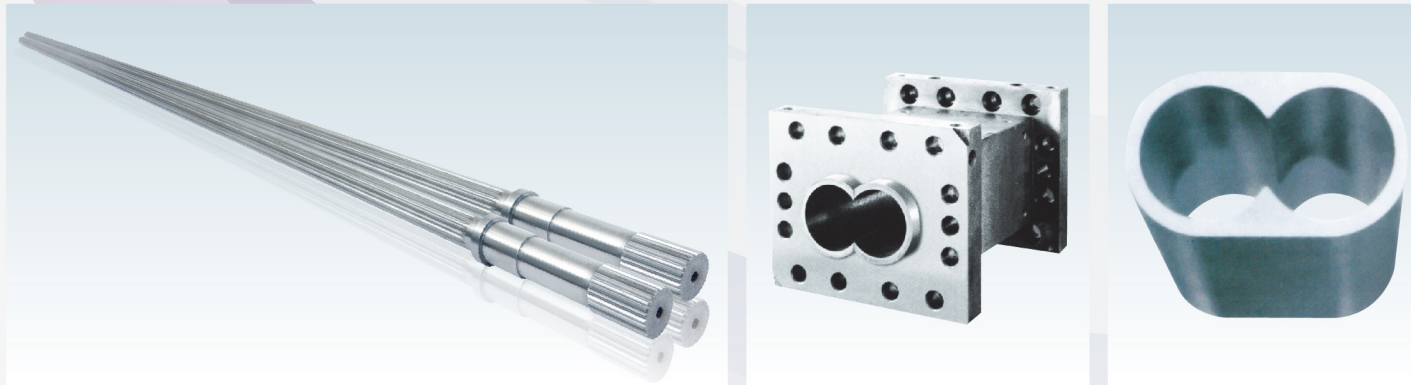


## SCREW ELEMENT, BARREL AND SHAFT



- The screw elements are segment type.
- The zone in the extruder can be divided into feeding, conveying, mixing, metering, melting, dispersing, kneading, degassing etc..
- Durable, tough screw elements and kneading block make the EKA twin screw extruder with best performance on different processing application.
- The screw elements and kneading block provided by Matila are made from special hot rolling steel alloy and pulverous compounding metal material.
- High precise and qualitative processing, make every screw element and kneading block can be exchanged.



Spindle shafts are made from special steel, it can ensure effective torque transmission under high torque & high loading condition, and at the same time, facilitate easy removal for maintenance and reconfiguration

- Same for barrels, Matila can design and provide different type of barrels according to customer's demand
- Barrel types include input barrel, closed barrel, side-feeder barrel, degassing barrel, combination barrel...etc.
- With special bi-metal alloy steel and different processing method, Matila can provide you the qualitative and satisfied product for different application

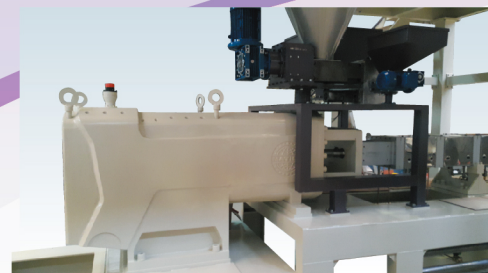
## ACCURATE TEMPERATURE CONTROLLER



Water cooling circulating channels system inside barrel elements ensures the efficient and direct cooling.

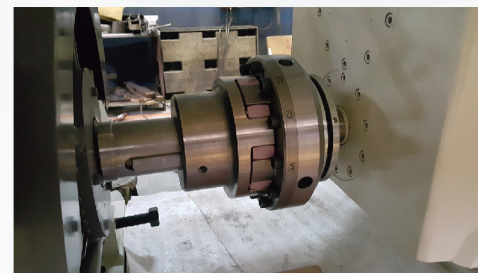
Heating elements are by switching solid state relay SCR+PID temp. controller to automatically control electric power to heater assembled on barrels.

## GEAR BOX & TRANSMISSION SYSTEM



EKA-series equips with powerful high torque gear box which including the force lubricating system that is able to adjust lubrication pressure. It ensure gear box extremely smooth running.

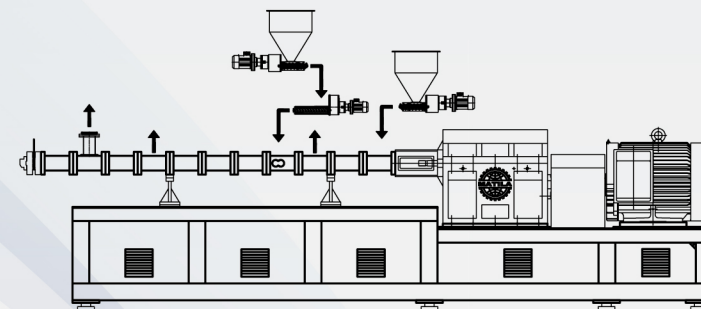
## TORQUE LIMITER



EKA machine equip with Germany made torque limiter with torsionally flexible Rotex which is used between the gear box and motor. When the torque demanded by the systems exceeds a certain value, the coupling disconnects the gearbox from the motor immediately. The value can be pre-set between arrange of values.

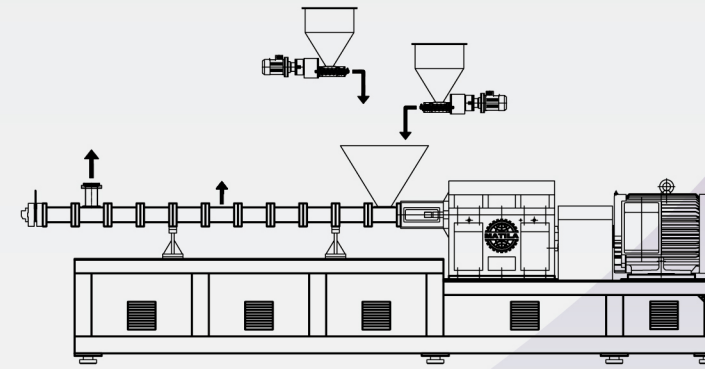
## THE TYPICAL APPLICATION OF TWIN SCREW EXTRUDER

### MASTERBATCH PRODUCTION



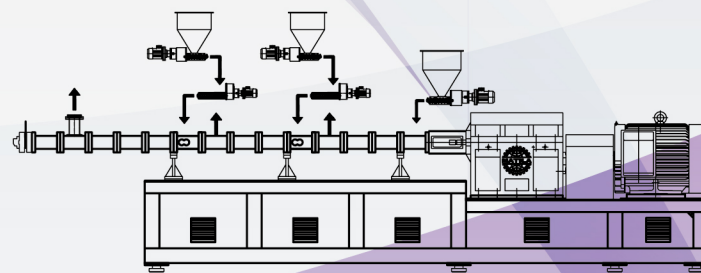
- Carbon black
- Color pigments
- Flame-retardants
- Degradable MB

### PLASTICIZING & ALLOYING



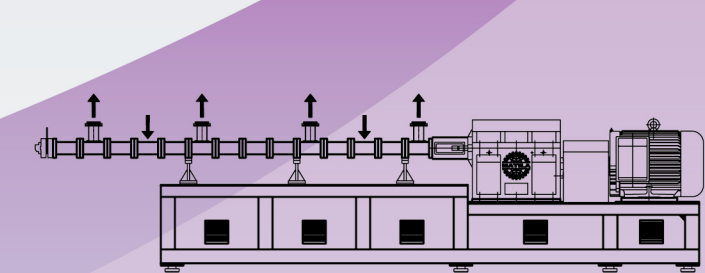
- Thermoplastic/ rubber
- Plastic alloy
- PC/ ABS alloy

### FILLING & REINFORCING



- Calcium carbonate
- Talc
- TiO2
- Ceramic powder
- Wood and fiber
- Short FG, long FG
- Carbon fiber

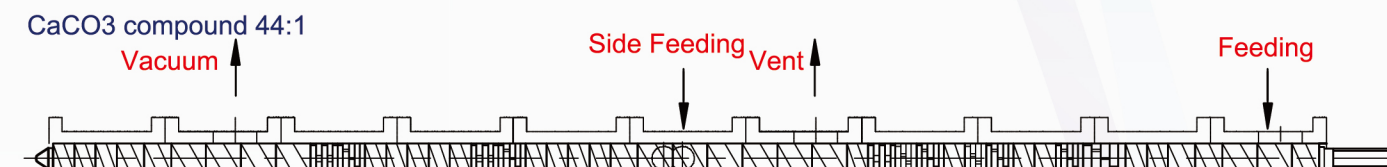
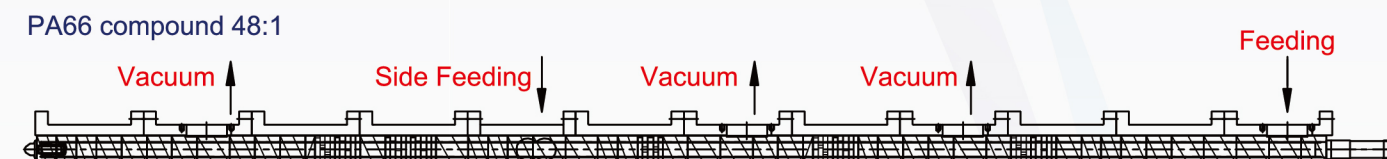
### REACTIVE EXTRUSION & DEGASSING



- TPU
- Polymerization
- PMMA/ PI/ POM
- Grafting reaction
- K-resin
- CPP
- FI rubber
- SBS/ SEBS

### SCREW PREMUTATION

Screw element arrangement for reference



## EKA series

Co-rotary twin screw extrusion line

## MATILA INDUSTRIAL CO., LTD.

No. 186, Chung Hsiao Road, Pali Dist., New Taipei City, Taiwan 249

Tel: 886-2-2619 2222

Fax: 886-2-2610 1100

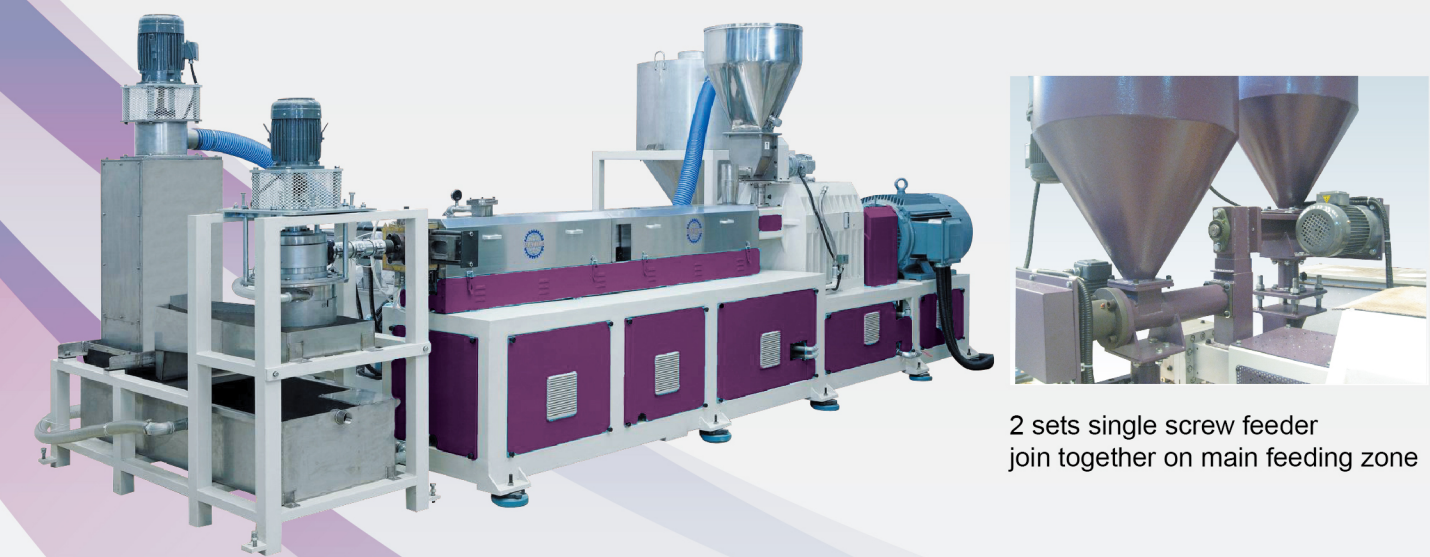
E-mail: matila@matila.com.tw

www.matila.com.tw





CO-ROTARY TWIN SCREW EXTRUSION LINE



2 sets single screw feeder join together on main feeding zone

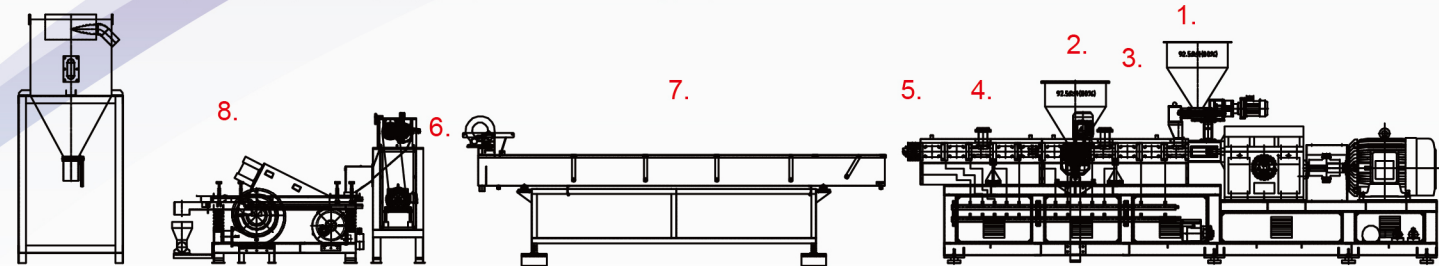
Model	EKA-25LAB	EKA-30D	EKA-42	EKA-52D	EKA-62D	EKA-72D	EKA-92D
Production (kg/hr)	2~10	30~100	60~200	100~400	150~650	300~1000	600~1600
Screw diameter	25	30	41	51.4	62.4	71	93
Screw L/D ratio	42	35~52					
Main motor	Servo5	15~25	40~60	50~125	125~225	200~300	450~600
Cutting system	Strand type, Air cooling die face , Water cooling die face, Underwater cutting as request						

DIFFERNET CUTTING SYSTEM



Application for recycling PA6/PA66

1. Main feeder
2. Side feeder
3. Vacuum degassing system (1) (Vent)
4. Vacuum degassing system (2)
5. Plate type screen changer
6. Strand type pelletizer
7. Water cooling tank
8. Vibration & selection system



APPLICATION OF RECYCLED PE FILM + CaCO3 COMPOUNDING  
CO-ROTARY TWIN SCREW EXTRUSION LINE

- **ALL-IN-ONE:** Recycling, Compounding, Coloring, Filling.
- **SIMPLE STEP:** combine the recycle and compounding process in one step.
- Accurate mixing percentage control, improve quality and add value of recycled material.
- Finished pellet can be directly used on next step production, without other additional blending system.
- Available for different feeding system and cutting system by request.

VARIOUS FEEDING SYSTEM



Crusher

Model	EKA-42RC	EKA-52RC	EKA-62RC	EKA-72RC
Used materials	Crushed film scraps + CaCO3 powder + Additives			
Production capacity (kg/hr)	60~180	150~300	200~400	300~600
Screw diameter & L/D	41mm & 48/1	51.4mm & 48/1	62.4mm & 48/1	71mm & 48/1
Main motor	50HP x 6P	100HP x 6P	150HP x 6P	250HP x 6P
Cutting system	Strand type, Air cooling die face , Water cooling die face, Underwater cutting as request			
Finished product	20~60% CaCO3 filler in pellets			

AVAILABLE ACCESSORIES

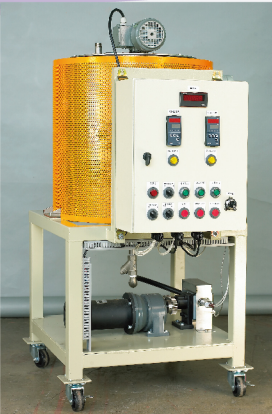
Vacuum degassing system



Accumetre/Hydraulic driver

GRAVIMETRIC SYSTEM (LOSS IN WEIGHT)

For Liquid



Horizontal pre-mixer

For Granule



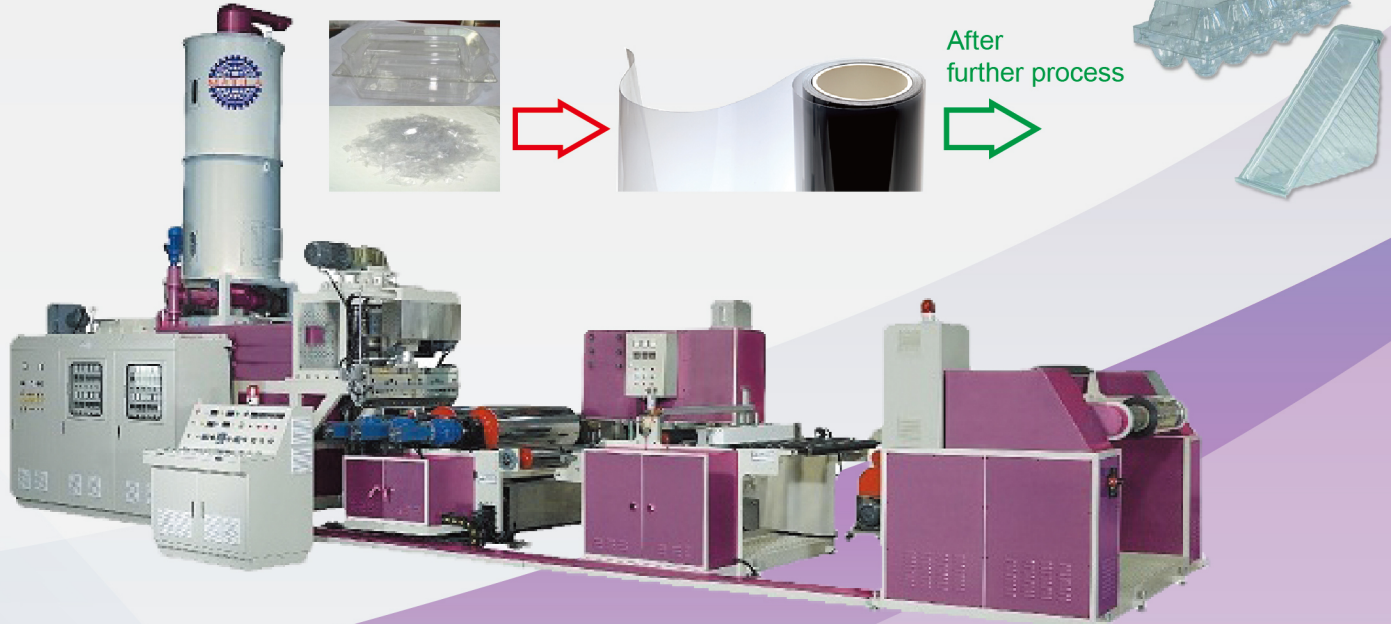
Vibration cooling & selection system

For Powder



PET CO-ROTARY TWIN SCREW RECYCLED EXTRUDER  
100% PET WASTE – PET SHEET

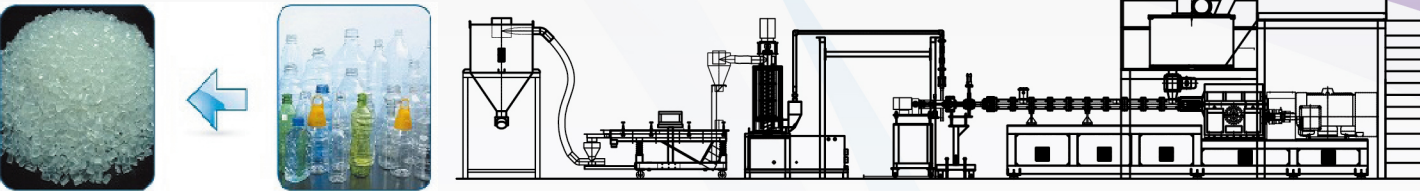
- Suitable for 100% crushed recycled PET scraps.
- Power saving design, the power consumption less than 150kw when the line under normal operation.
- Excellent plasticization, Min. crystal spots and 0.05 rate of viscosity lowering.



Model	EKA-52/PET-S750	EKA-62/PET-S750	EKA-62/PET-S1100
Used materials	PET scraps, flakes		
Sheet width	750mm	750mm	1100mm
Thickness range	0.15~2.0mm		
Production capacity (kg/hr)	150~250	250~450	250~450
Line speed	2~30M / min.		
Screw diameter & L/D	51.4mm & 48/1	62.4mm & 48/1	62.4mm & 48/1
Main motor	AC75HP x 6P	AC150HP x 6P	AC150HP x 6P

PET CO-ROTARY TWIN SCREW RECYCLED EXTRUDER  
FOR PET FLAKE/ PET FOIL SCRAPS

- Suitable for 100% crushed recycled PET flaks/scraps.
- Lower power consumption, no need crystallization and dehumidify.
- Underwater cutting system, finish PET pellet with good IV value.



Model	EKA-52PET	EKA-62PET	EKA-72PET
Used materials	PET scraps/flakes, 5x5mm, moisture contained less than 1%		
Production capacity (kg/hr)	150~250	250~450	250~450
Line speed	2~30M/min		
Screw diameter & L/D	51.4mm & 40/1	62.4mm & 40/1	62.4mm & 40/1
Main motor	AC125HP	AC150HP	AC250HP
Cutting system	Underwater cutting system		

