

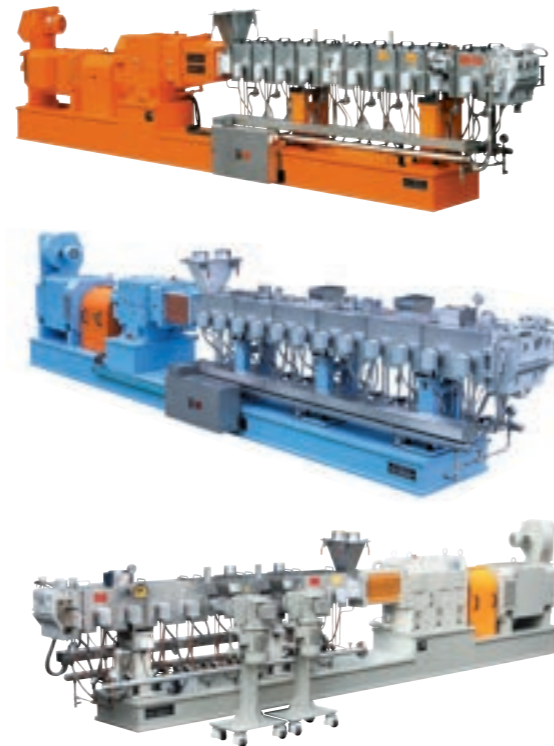
Twin Screw Extruder Strand Cutting System

The most commonly used system. The polymer compounded in the extruder passes through the Breaker Plate of the die head at the end of the barrel. The polymer is discharged through a die nozzle into multiple strands by extrusion.

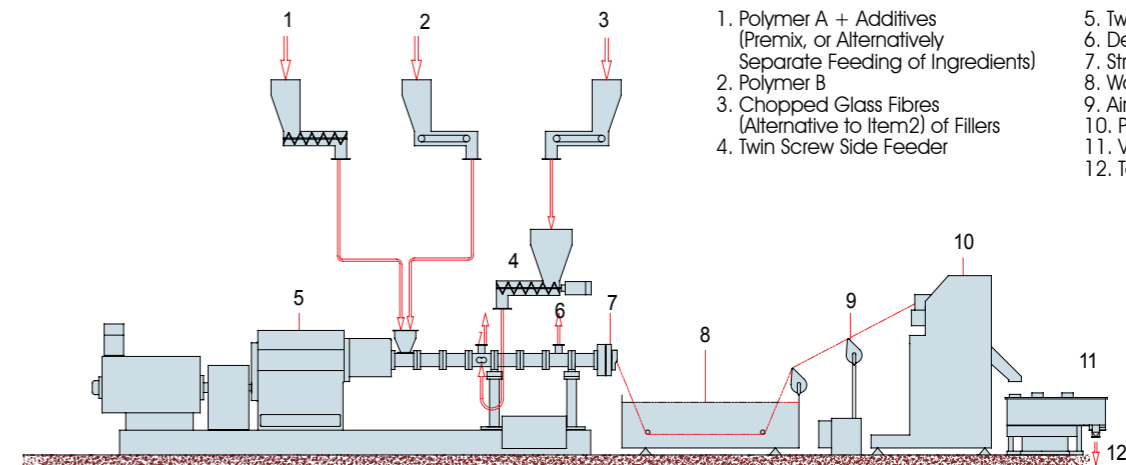
The polymer through the nozzle is cooled in a water-bath, dried with air wiper, and cut into about 3~6mm length in the pelletizing machine. The cut pellets are classified into quality products, dust and long-cuts according to their size using a vibrating screen. The quality products are transferred to storage or packing process.

■ Features

- Polymer production and pelletizing.
- Polymer blending and alloying.
- Fiber reinforcing materials & Fiber-glass, Graphite., Talc., Clay, Carbon black, Etc.
- Multi-purpose dispersion and concentration.
- Polymer material modification.

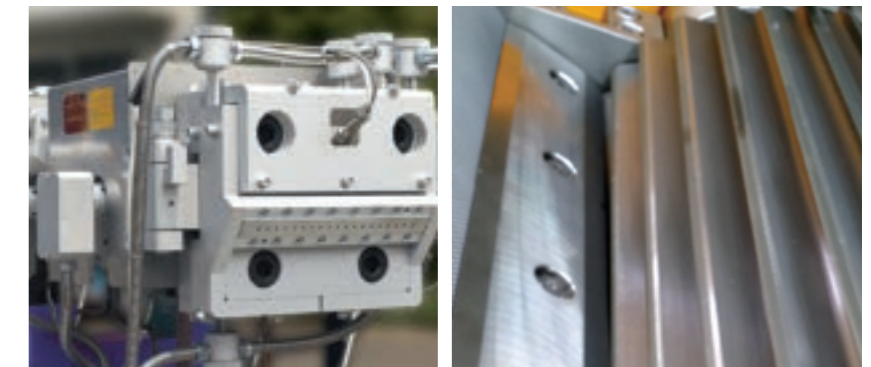


■ Flow Diagram



Plant for Filling, Reinforcing Alloying and Coloring

- | | |
|---|-----------------------------|
| 1. Polymer A + Additives
(Premix, or Alternatively
Separate Feeding of Ingredients) | 5. Twin Screw Extruder |
| 2. Polymer B | 6. Degassing Port |
| 3. Chopped Glass Fibres
(Alternative to Item2) of Fillers | 7. Strand Die-Head |
| 4. Twin Screw Side Feeder | 8. Water Cooling Bath |
| | 9. Air Wiper (Suction Type) |
| | 10. Pelletizer |
| | 11. Vibrator Screen |
| | 12. To Bagging Section |



Strand Die Head

(Simple 45° Downward Traverse Die)

The die head is designed to minimize pressure loss in continuous production. The die head is designed for easy screen exchange and head cleaning. The die nozzle maintains high quality at high temperature by using special steel.

When processing highly abrasive materials such as GF reinforced nylon, specially-heat-treated special steel die nozzle is used. When processing the materials emitting corrosive gases, corrosion-proof die nozzle is used. In addition to making the standard dies, hot-cutting-dies, UWC dies, and film dies are available.

Screen changing time can be shortened by adding screen changer.

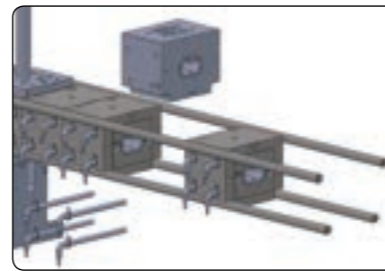
(Depending on the resin to produce a variety of items with the material can be configured, Please consult with SM PLATEK for the material fit for the resin to be processed.)

Twin Screw Lab-Extruder

TEK25MHS¹⁵³

A World Class High Performance Compact Twin-Screw Extruder

Since 1988, more than 1,300 units have been delivered and it has been well received for its excellent efficiency. The TEK25MHS¹⁵³ model with a higher torque of 15.3Nm/cm³ has been newly added to the lineup. It boasts a world-class high-performance with specifications that readily meet the diverse needs of the customers ranging from R&D applications to small-quantity production.



TEK MHS¹⁵³ Specification

Description	Unit	TEK25		TEK25MHS(153)	TEK30MHS		
		L	M	Standard	L	M	H
Screw diameter	mm	25.0		25.0	31.6		
Screw intermeshing	Do/Di	1.51		1.51	1.58		
Torque rating	Nm	144		288	407		
Screw speed(Max.)	Speed	L	M	Standard	L	M	H
	rpm	336	493	729	352	516	706
Motor generated torque	Nm	62	60	120	125	183	164
Drive motor	Kw	7.5	11	22	15	22	30
Weight(approx.)	Kg	980		1,800	2,500		
Throughput(ABS)	Kg/hr	5~30		30~80	20~150		

(The throughput is subject to change depending on the process recipe.)

“Word Class” High Performance Spec.

- Compared with its predecessor TEK25MHS, the new TEK25MHS¹⁵³ has approximately 40% higher operation torque and reaches 15.3Nm/cm³ of “World Class” high torque density.
- Be able to be applied to various compound applications using with polyolefins and engineering plastics with the machine spec of motor power 30kW and screw speed Max. 1225 rpm.
- Each barrel is equipped with cartridge heaters and a cooling jacket and enables precise barrel temperature control.

Easy Operation

- A new designed “Tie-bar” barrel connection system allows you to change barrel configurations by dismantling barrels one by one, instead of dismantling whole barrel assembly.
- Side feeders are mounted on a new designed swing arm and are able to change their location easily.
- The new TEK25MHS¹⁵³ is equipped with a touch screen type operation panel. The operation panel is able to be selected from either JSW EXANET or touch screen type HMI+PLC.

Compact Design

- All necessary electric components, such as motor drive and TIC controller, are mounted in a “compact” main frame of the TEK25MHS¹⁵³, thus saving installation space and installation work time.

Wide Variety of Axially Equipment

- In order to meet your requirements, SM Platek offers an optimized machine configuration from our wide variety of axially equipment including SM Platek own equipment and the other supply's ones.
- Axially equipment: Loss-in weigh feeders (Kubota, Brabender, K-Tron etc.), Side feeders, Pelletizing systems etc.

