

A nighttime aerial view of a city. In the foreground, a complex highway interchange with multiple overpasses is visible, with light trails from cars creating long, bright streaks. To the right, a tall, cylindrical building is illuminated with blue and white lights, featuring a distinctive golden, domed top. The background is filled with various other skyscrapers and city lights under a dark blue sky with some light clouds.

Brief Introduction of PET Filament Production Line Project



Brief Introduction of China High-Tech Group Corporation

CHINA TEXMATECH CO., LTD.



Introduction of CHTC

- Established in Sep. 1998, China High-Tech Group Corporation is a state-owned enterprise with textile machinery as its core business.
- High-Tech Group currently owns a total asset of 90 billion RMB, with 23 subsidiaries, 14 overseas companies and over 48,000 employees, as well as 6 companies listed either domestic or overseas.

58 Billion

Total Asset

23

subsidiaries

14

Overseas Companies

60000

Employees

6

Listed Companies

Introduction of CHTC



Member Enterprise

23

Main subsidiaries

- China Textile Industrial Corporation for Foreign Economic and Technical Cooperation
- China National Chemical Fiber Corp.
- China Silk Industrial Corporation
- China National Garments Group Corporation
- China Textile Science & Technology Co., Ltd.
- Hantrong Investment Co., Ltd.
- Sinatex S.A.DE.C.V
- Hi-Tech Fiber Group Corporation
- China Hi-Tech (Jiangxi) Textile Design Institute Co., Ltd.
- CHTC Industries (Weifang) Co., Ltd
- CHTC Investment Management Co., Ltd
- CHTC Engine Co., Ltd.
- CHTC Holdings Co., Ltd.(The Subsidiary - Fong's Industries Company Limited)
- CHTC KAMA Co., Ltd.
- Shenyang Zhongheng New Materials Co., Ltd.
- CHTC Real Estate Co., Ltd.
- CHTC Heavy Industry Co., Ltd
- China Garments Co., Ltd.
- Zhengzhou Hi-Tech Non-woven Technology Co., Ltd.(The Subsidiary - Autefa Solutions Group)
- Swan Fiber Co., Ltd.
- Shandong Helon Co., Ltd.
- Jingwei Textile Machinery Co., Ltd.
- Hongda Investment Co., Ltd.

Introduction of CHTC



Member Enterprise

6

Listed Companies

- Jingwei Textile Machinery Co., Ltd. (000666)
- CHTC KAMA Co., Ltd. (900953)
- Swan Fiber Co., Ltd. (000687)
- China Garments Co., Ltd. (000902)
- Shandong Helon Co., Ltd. (000677)
- Fong's Industries Company Limited (HK.00641)

Introduction of CHTC



Business





Introduction of CHTC

CHTC in Textile and Chemical Machinery

- The core business of CHTC
- No.1 in the textile machinery supplier in China
- World's top supplier of turn-key polymerization & fiber lines & Coal/Nature gas chemical industry.
- Main products:

Synthetic fiber complete equipment, Coal/Nature gas chemical industry , Polymerization production line, Cotton textile whole process equipment, Printing and dyeing complete equipment, Non-woven cloth complete equipment.



Introduction of CHTC



Major company and strategic partner in Textile and Chemical Machinery



Zhengzhou Textile Machinery
Engineering & Technology Co., Ltd.



Jingwei Textile Machinery Co., Ltd.



Autefa Solutions



Polytex Engineering Group



Fong's Industries Company Limited



Introduction of CHTC



Location of the Branches





Distribution



CHINA TEXMATECH CO., LTD.



The Professional Supplier of Whole Line Project

(EPC Project & Turnkey Project)

CHINA TEXMATECH CO., LTD.

Recipe for Winning in the Market



Turnkey

Help customers to start from scratch to a running factory.



Real Whole-Line

All main equipments are made by CHTC



Best Parts & Material

Use the best parts & materials in the industry



The Professional Supplier of Whole Line Project

(EPC Project & Turnkey Project)

- **Equipment and Utilities**
- **Civil engineering**
- **Financial support**



Introduction of Filament Production Line

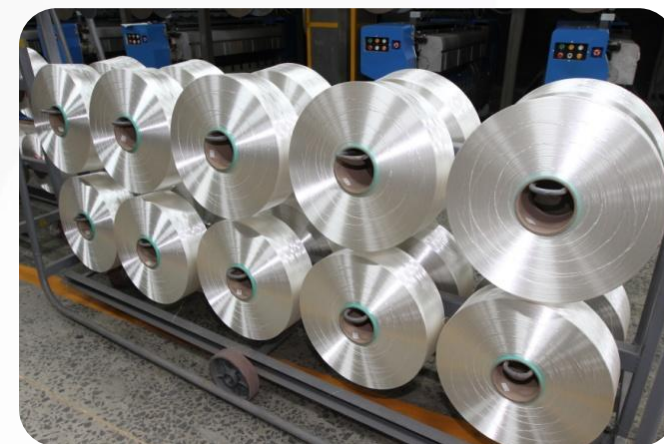


CHINA TEXMATECH CO., LTD.

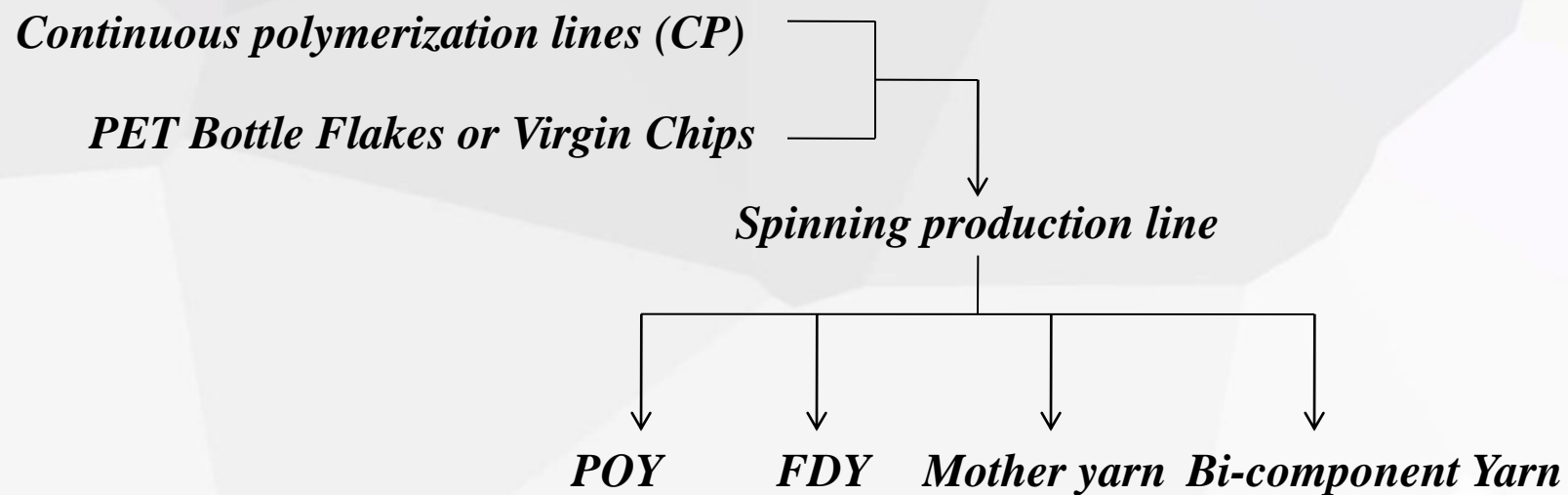


Introduction of Filament Production Line

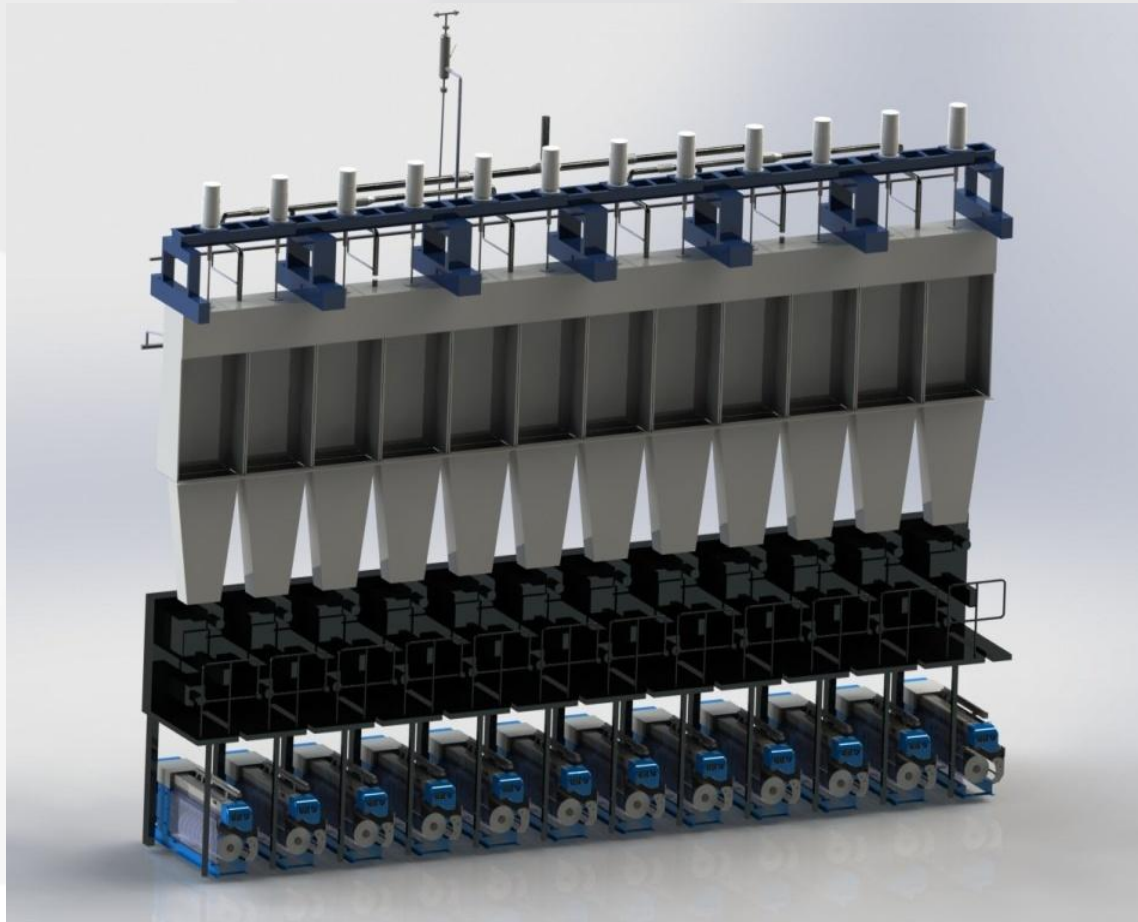
- More than 10 year's developing and manufacturing experience.
- Mainly product: POY line, FDY Line, for Polyester filament, Nylon filament, polypropylene etc.
- Delivered more than 3000 positions in China and overseas market.
- Achieve high quality, widely used, high added value for customer .



Introduction of Filament Production Line



Introduction of Filament Production Line



Polymer POY Process Flow from CP

Melt polymer from CP → Three-way valve → Melt transfer pipe → Melt filter → Distribution pipe → Spin beam → Cross quenching → Oil nozzle → Yarn duct → Cutter & aspirator → Pre-interlace → GR1 → Interlace → GR2 → Auto winder

Polymer FDY Process flow from CP

Melt polymer from CP → Three-way valve → Melt transfer pipe → Melt filter → Distribution pipe → Spin beam → Cross quenching → Yarn duct → Cutter & aspirator → Spin finish roller → Pre-interlace → Dual HGR1 → HGR2 + SR → Interlace → Auto winder

Introduction of Filament Production Line



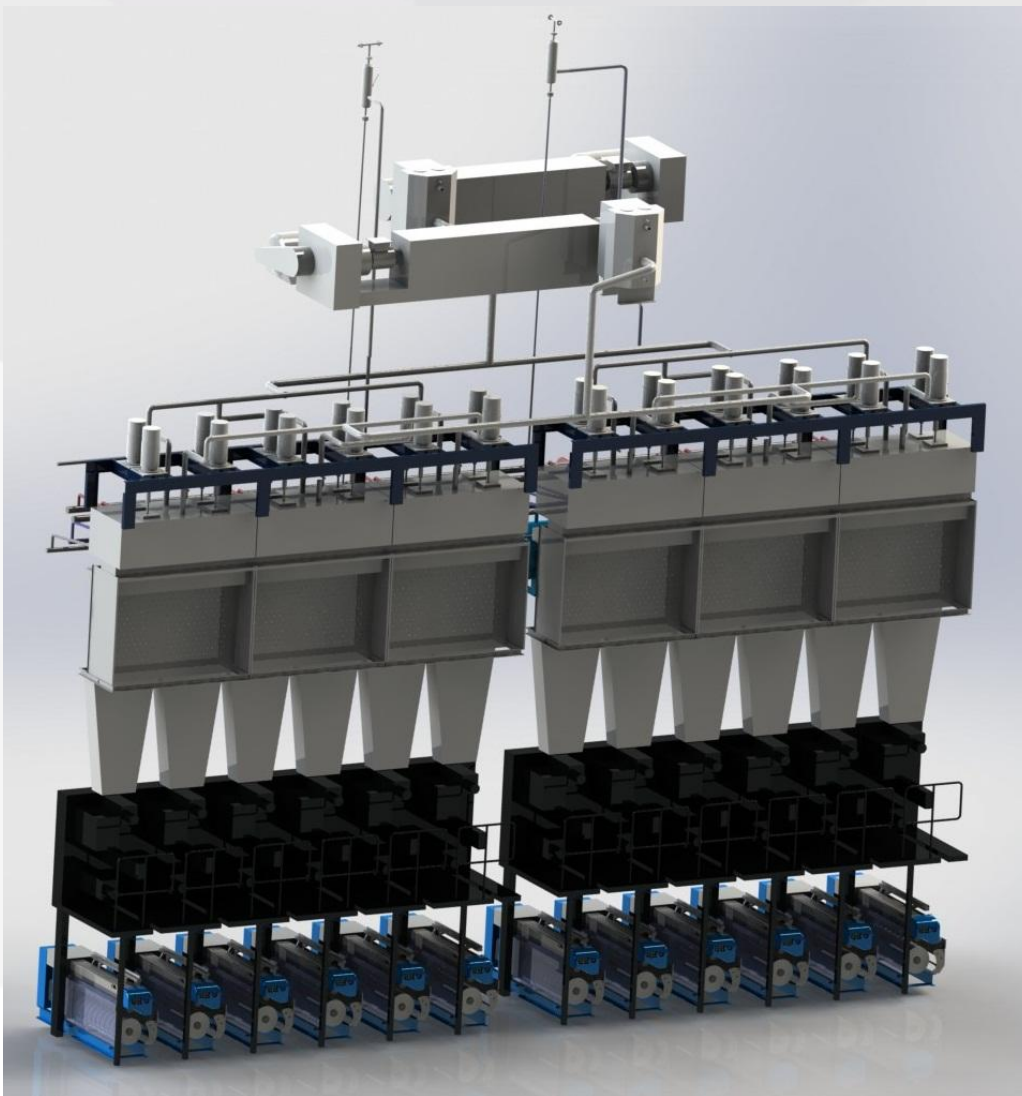
POY Process flow from chips or flakes

*Chips or Flakes Dryer → Extruder → Pre filter →
(Homogenizer → Fine filter → Post MB adding system) →
Spin beam → Cross quenching → Oil nozzle → Yarn duct →
Cutter & aspirator → Pre-interlace → GR1 → Interlace →
GR2 → Auto winder*

FDY Process flow from chips or flakes

*Chips or Flakes Dryer → Extruder → Pre filter →
Homogenizer → Fine filter → Post MB adding system → Spin
beam → Cross quenching → Yarn duct → Cutter & aspirator →
Spin finish roller → Pre-interlace → Dual HGR1 → HGR2 + SR
→ Interlace → Auto winder*

Introduction of Filament Production line



Process flow of mother yarn line

Chips conveyor → Pre crystallizer & Dyer → Extruder → CPF → Spin beam → Cross quenching → Cutter & Aspirator → Oiling roller → Pre interlace → Dual HGR1 → Dual HGR2 → GR3 → Auto winder

Process flow of Bi-Component line

Component A drying → Extruding → Filtering & metering
Component B drying → Extruding → Filtering & metering
→ Spin pack → Quenching → Oiling → Auto winding

Introduction of Filament Production line

Dryer

- Main purpose to remove the moisture from the raw material and also increase the softening temperature of raw material.



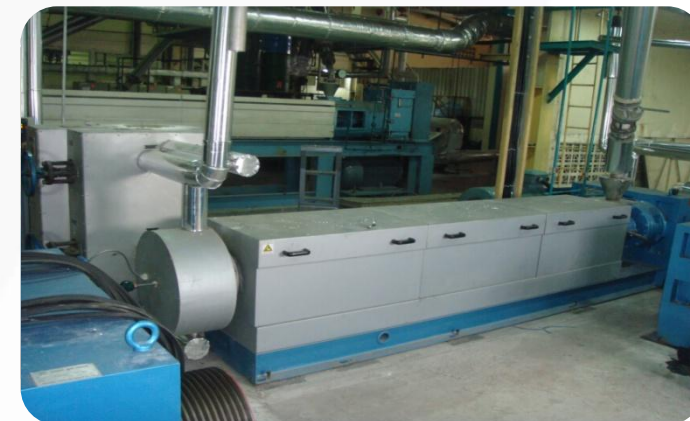
Continuous Dryer



Introduction of Filament Production Line

Screw extruder

- For melting and mixing the PET bottle flakes or chips from hopper after being heated and dried.
- Diameter series of screws: $\Phi 60$, $\Phi 80$, $\Phi 90$, $\Phi 150$, $\Phi 120$, $\Phi 130$, $\Phi 135$, $\Phi 150$, $\Phi 160$, $\Phi 170$, $\Phi 180$.
- One extruder for 2 pos/3pos/4pos for firmament production line according to the different design



Spinning beam and related equipment

- Specially designed distribution piping system to guarantee same dwell time and same pressure for reaching each spinning position.
- High –precision metering pump to provide continuous melt in high pressure and accuracy into spin pack . Driven by synchronous motor and with vertical type or horizontal type.
- Equipped with new type of energy conservation spin beams with (25-30)% less energy consumption compared with conventional ones.
- Holes for the spinneret: 24, 36,48,72,96,108,144, 288.
- DIO for micro fine denier yarn





Introduction of Filament Production line

■ ■ ■ *Quenching area*

- Monofilament cooled by air flow with certain temperature ,angel and speed from quenching area for ensuring good yarn quality .
- The system provide high-level automation ,uniform cooling result and comfortable working environment.
- With cross quenching ,circular quenching and special-cross quenching device depending on different production requirement.



Introduction of Filament Production line

■ ■ *TK Series Hot Godet Roller(HGR) and Separate Roller(SR)*

- Suitable for FDY process .
- Comprised by godet , heater, transistor, sensor and control temerature.etc .
- With power frequency and thermal pipe temperature uniform or individual section temperature controlling for HGR
- Driven by permanent magnet synchronization motor.



HGR 1



HGR 2



SR



Introduction of Filament Production line

Technical Specification of HGR

Dia. mm	220	220
Length (can be customized) mm	350	400
Effective heating length mm	280	330
Speed m/min	1000-6000	1000-4000
Temperature °C	0-150	50-200
Temperature difference in working zone: °C	± 1.5	± 1.5
Heating efficiency KW	11	9
Surface treatment:	Ceramic coated	Chrome plating
Driving motor	4-level permanent magnet synchronous motor	
Lubrication	Oil mist	

Introduction of Filament Production line

High-speed Winder

- As key part of the filament yarn production line , winder from CHTC can be divided into ZWT winders with traverse cam and ZWB winders with bi-rotary for spinning POY and FDY of PET and polyamider as well as other industrial spinning.
- With multi-combination and flexible application to improve the customer's benefits capacity.



ZWT series Cam winder



ZWB series Birotor winder

Introduction of Filament Production line





Introduction of Filament Production line

The advance of CHTC equipment

- More than 16 year's developing and manufacturing experience.
- Delivered more than 3000 positions in China and overseas market.
- Turn-key project.
- Advanced DCS control system.
- Famous international supplier like Meiden Japan, ABB America, Slack UK.
- Professional erection and commissioning guidance.
- Rapid and excellent after-sale service.



Professional Design and Utilities Data



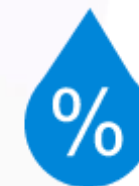
- Design the reasonable and customized machine arrangement whatever for customers' existing workshop or new building



- Calculate the total installation power after the beginning of design and also recommend customer the suitable transformer capacity



- Full set of drawing according to the process step



- Others

Famous brand accessory



明電舎

FAG



YUASA

AirTAC

Dent



ABB



SLACK & PARR



AWA SPINDLE CO., LTD.

FESTO



Thanks