

Optical Fiber & Cable Machinery



COMPANY Profile

Shanghai Yupin Communication Technology Co., Ltd. is one optical fiber and cable special equipment R&D institute of Zhongtian Technology Co., Ltd. We are engaged in optical fiber and optical cable machine researching and manufacturing. All technicians and developers have many technology experiences in optical fiber communication machine manufacturing field. Therefore, we have strong technical renovation and innovation power. We also can give customer the turnkey project. Our products have been sold to many optical fiber and cable manufacturers of China, and also exported to many countries around the world, such as U.S.A, Netherlands, Russia, Byelorussia, Italy, Romania, Australia, Indonesia and India, etc.

We have passed ISO9001-2000 certification. All optical fiber and cable machine get CE certificate.

Under strict quality control system, we received customers' trust with supreme technology, supreme quality and supreme services. We will provide up-to-date products for customers both at home and broad.



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Optical fiber drawing tower

Application

This drawing tower is used to produce high quality silica optic-fibre.



Technical Data

- one tower one line or one tower two line
- Tower height 27m
- Drawing speed 1500m/min
- Preform dia $\Phi 80\sim 120 \times 2800\text{mm}$
- Graphite furnace temperature $2500 \pm 2^\circ\text{C}$
- Fiber diameter $\Phi 245 \pm 3 \mu\text{m}$
- Take-up reel $\Phi 405\text{mm} \times \Phi 50\text{mm} \times 270\text{mm}$

Tower configuration

- Preform feeding unit
- Graphite furnace
- Diameter gauge
- Cooling system
- Auxiliary capstan
- First coating system
- Coating concentric tester
- UV curing system
- Diameter gauge
- Second coating system
- Coating concentric tester
- UV curing system
- Diameter gauge
- Fiber PMD twister
- Tension testing device
- Capstan
- Tension dancer
- Dual automatic take up
- Electrical control system



Application

Quartz series optical fiber drawing towers are used to manufacture polarization-maintain optical fiber, large diameter core optical fiber, metal-coated optical fiber, anti-radiation optical fiber, and also to manufacture quartz canaliculus, abnormality tube for photoelectrical parts. Drawing tower is consist of tower frame, perform feeding unit, graphite heating furnace, diameter gauge, auxiliary capstan, coating applicator, curing furnace, fiber tension gauge, capstan, take-up and electrical control system.

Technical Data

- | | |
|------------------------------------|--|
| • Height of tower | about 7~14m |
| • Preform size | $\Phi 50\text{mm} \times 1500\text{mm}$ |
| • Temperature of heating furnace | $\leq 2200^{\circ}\text{C}$ |
| • Speed of drawing | $\leq 600\text{m/min}$ |
| • Diameter of product and accuracy | $\Phi 1250\text{—}2000\text{nm} \pm 60\text{nm}$ |



Optical fiber proof-testing and rewinding machine

Application

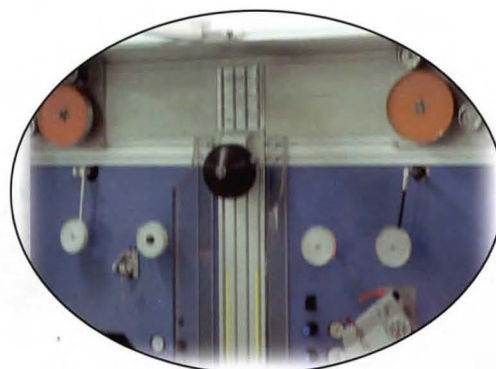
This system is used to test the optical fibre strength and rewinding the fibre.

Technical data

- | | |
|------------------------|---|
| • Line speed | 2100m/min |
| • Proof tested tension | $5\text{—}20 \pm 3\% \text{N}$ |
| • Proof test length | 2.5—12M |
| • Pay-off reel size | $\Phi 550\text{mm} \times 500\text{mm}$ |
| • Take-up reel size | $\Phi 240\text{mm} \times 300\text{mm}$ |

Line configuration

- Optical fibre pay-off
- Pay-off tension dancer
- Fibre proof testing unit
- Take-up tension dancer
- Optical fibre take-up
- Electrical control system



Optical fiber coloring and rewinding machine

Application

This machine is designed for coloring and rewinding the fiber. We adopt auto-tracking traversing unit, pressure coating system, UV auto-adjust power supply, automatically take-up traversing unit. This machine occupies 40% the field of optical fiber coloring around the world.

Technical data

- Construction speed 1500m/min
- Fiber tension $0.3-1.5 \pm 0.05N$
- Traversing pitch $0.1-1.0 \pm 0.01mm$
- Reel size
 - Reel flange dia 236-300mm
 - Reel width 108-250mm
 - Shaft bore dia 25.4mm
 - Reel weight 10kg
- Metering accuracy $\leq 1\%$
- Additional loss $\leq 0.02db/km$ (SM. Fiber)



Application

This machine is designed for manufacturing optical fiber ribbon.

Technical data

- Line speed 600m/min
- Fiber payoff qty 12
- Ribbon payoff qty 2
- Fiber payoff reel size 25km,50km
- Ribbon payoff reel size $\Phi 4500\text{mm} \times 400\text{mm}$
- Take-up reel size $\Phi 4500\text{mm} \times 500\text{mm}$



Optical fiber secondary coating line

Technical data

- Line speed 300m/min
- Tube dia $\Phi 1.7 - \Phi 4.0\text{mm}$
- Fiber excess length range $0 - 3\% \pm 0.5\%$
- Optical-fiber reel size 25km,50km
- Take-up reel size 800mm

Line configuration

- Optical fiber pay-off
- Oscillating unit for optical fiber
- Jelly degassing and filling device
- Extruding group
- Hot water tank and trough system
- Over-length capstan
- Cooling water trough system
- Blowing dryer
- Diameter gauge
- Caterpillar
- Take-up dancer
- Dual automatic take-up
- Electrical control system

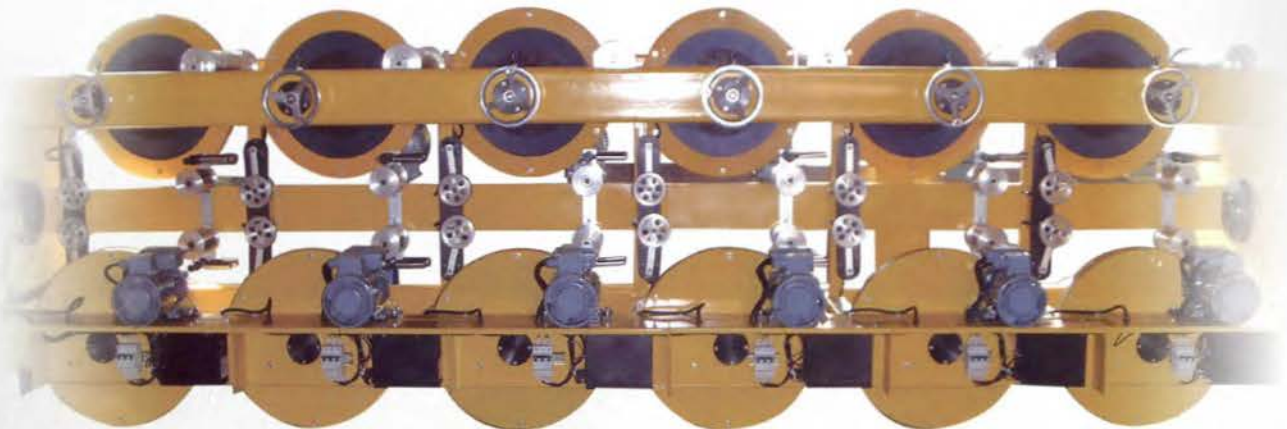


Technical data

- | | |
|--------------------------|---|
| • Line Producing speed | 60m/min |
| • Ribbon pay-off number | 24 |
| • Ribbon pay-off tension | 2—6N |
| • Ribbon strander speed | 120rpm |
| • Ribbon reel size | $\Phi 410\text{mm} \times \Phi 50.8\text{mm} \times 391\text{mm}$ |
| • Tube diameter | $\Phi 4.0$ — $\Phi 10.5\text{mm}$ |

Line configuration

- Optical fiber ribbon pay-off strander
- Jelly degassing and filling device
- Extruding group
- Hot water tank and trough system
- Over-length caterpillar
- Cooling water trough system
- Blowing dryer
- Diameter gauge
- Tension unit
- Dual wheel capstan
- Dual wheel tension unit
- Take-up
- Electrical control system

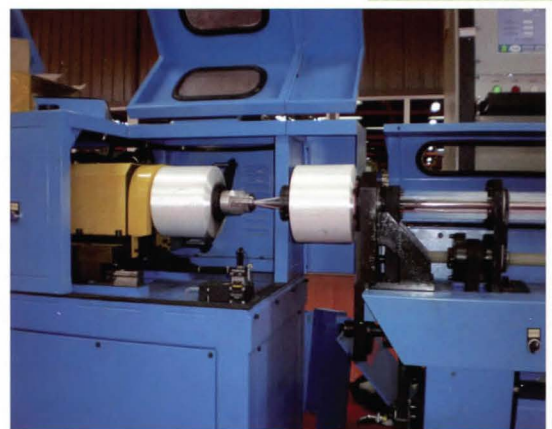


Technical data

- | | |
|-------------------------------|--------------------------|
| • Line speed | 80m/min |
| • Product dia | Φ 30mm |
| • Loose tube payoff qty | 12 |
| • SZ stranding manner | elastic torsion bar |
| • SZ stranding angle | $\pm 18^\circ$ |
| • Binding manner | concentric cross-binding |
| • Binding speed | 3000rpm |
| • Loose tube payoff reel size | 800mm |
| • Payoff/Take-up reel size | 1800mm |

Line configuration

- Strength member pay-off
- Dual wheel tension unit
- Loose tube pay-off
- SZ oscillator
- Concentric cross-binder
- Anti-twisting device
- Jelly-filling device
- Dual tape pay-off and concentric binder
- Dual wheel belt capstan
- Take-up tension
- Take-up
- Electrical control system



Sheathing line

Technical data

- Line construction speed 100m/min
- Cable core dia $\Phi 3.0$ — $\Phi 25$ mm
- Product outer dia 30mm
- Pay-off reel size 2000mm
- Take-up reel size 2000mm



Line configuration

- Pay-off
- Tension control unit for central loose tube
- Dual wheel tension unit
- Steel-Aluminum tape pay-off
- Steel-Aluminum tape welder
- Steel-Aluminum tape accumulator
- Jelly filling system
- Swellable tape pay-off
- Steel wire pay-off
- Steel wire alignment device
- Steel tape corrugator
- Steel-Aluminum longitudinal tape applicator
- Extruding group
- Hot water tank and trough system
- Cooling water trough system
- Blowing dryer
- Diameter gauge
- Sparkle test instrument
- Length counter and character printer
- Caterpillar
- Take-up tension dancer
- Take-up
- Electrical control system



Application

This stainless steel optical fiber loose tube welding line is used for producing special optical fiber loose tube, like OPGW, submarine cables or metal sheath protected cables.

Technical data

- Line speed 45 m/min
- Tube dia $\Phi 2.0 - \Phi 4.2\text{mm}$
- Optical fiber qty 48
- Fibre overlength 0.05-0.7 % ± 0.1 %
- Take-up reel size 1250 mm

Line configuration

- Optical fiber pay-off
- Jelly degassing and filling device
- Stainless steel tape payoff
- Stainless steel tape traversing welding machine
- Stainless steel tape payoff tension
- Stainless steel tape accumulator
- Stainless steel tape longitudinal welding machine
- Stainless steel tape forming table
- Cleaning station
- A flaw detector
- 1200kg Caterpillar
- Tension control unit
- Tube alignment device
- Over-length control unit
- 200kg Caterpillar
- Take-up
- Electrical control system



Tight buffer line

Line configuration

- Optic-fiber pay-off
- Fiber preheater
- Extruding group
- Hot water tank and trough system
- Cooling water trough system
- Blow dryer
- Diameter gauge
- Capstan
- Take-up
- Electrical control system



Technical data

- | | |
|----------------------------------|-------------|
| • Line speed | 300m/min |
| • Product dia | Φ0.6—Φ1.0mm |
| • Optical fiber payoff reel size | 25km, 50km |
| • Take-up reel size | 400mm |



Premise Jacketing Line

Technical data

- | | |
|--------------------------------------|---------------|
| • Line speed | 200m/min |
| • Pay-off for tight buffer fiber qty | 24 reels |
| • Payoff reel | 400mm |
| • SZ oscillating angle | $\pm 8^\circ$ |
| • Kevlar pay-off qty | 20 reels |
| • Take-up reel size | 1000mm |

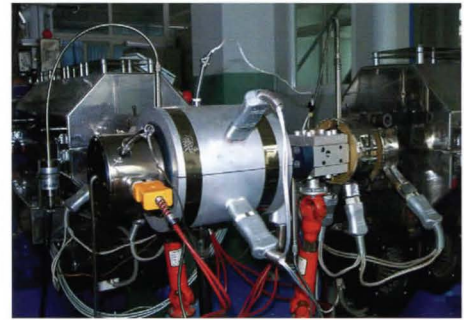
Line configuration

- | | |
|---|--|
| <ul style="list-style-type: none"> • Tight buffer fiber pay-off • SZ oscillator. • Parallel Kevlar pay-off • Tight fiber divided and combining device • Extruding group • Hot water tank and trough system • Cooling water trough system | <ul style="list-style-type: none"> • Blowing dryer • Diameter gauge • Wheel capstan • Take-up tension unit • Take-up • Electrical control system |
|---|--|



Technical data

- Line speed 200m/min
- Material for POF core PMMA
- Material for POF skin resin including fluorine
- Product diameter 0.5—2mm
- Precision of diameter 2%
- Skin ovality 1%



Line configuration

- Extruding group for core plastic
- Co-extruding group
- Vacuum device
- Hot water tank and trough system
- Cooling water trough system
- Blowing dryer
- Diameter gauge
- Wheel capstan
- Take-up
- Electrical control system

Filler extruding line

Technical data

- Line speed 300m/min
- Product dia Φ 1.5— Φ 3.5mm
- Extruding material PE, LDPE
- Take-up reel 800mm

Line configuration

- Extruding group
- Hot water tank and trough system
- Cooling water trough system
- Blowing dryer
- Diameter gauge
- Capstan
- Accumulator
- Dual automatic take-up
- Electrical control system



Line individual components



Optical fiber payoff



Jelly degassing machine



Parallel Kevlar payoff



Steel/Aluminum tape longitudinal applicator



Tight buffer fiber payoff



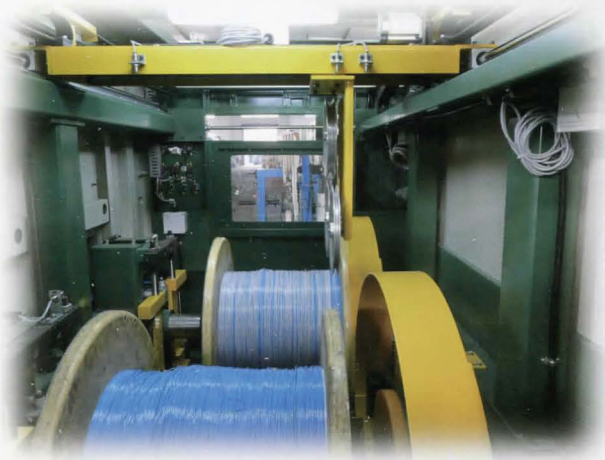
Stranding Kevlar server



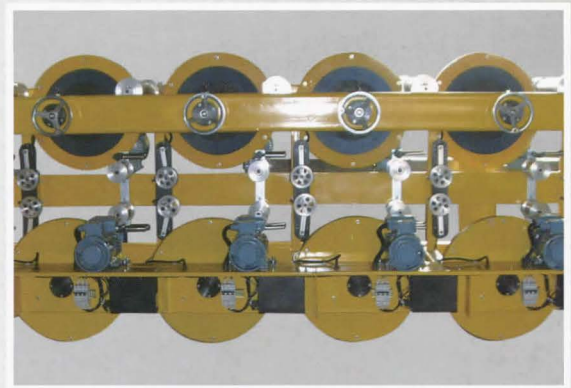
Pay-off/Take-up



Caterpillar



Dual automatic take-up



Optical fiber ribbon strander



Steel/Aluminium tape corrugator



Steel wire armoring cage

ZTT CABLE

ZTT is a leading and global manufacturer of cable systems, which provides package solutions for telecommunication and power applications around the world. With its rich heritage of highly advanced R&D results, ZTT owns the cutting-edge technology within the industry.

ZTT was established in 1992 and became a listed company in 2002. Up to now, ZTT has developed to be a Group Company with 26 subsidiaries in China. Our products are widely used in telecommunication industry, power transmission industry, mining cable industry, marine and submarine cable industry, railway industry, cable manufacturing and so on.

ZTT has always committed to be market-oriented, meeting various demands of our customers and providing economical & reliable solutions. With innovative product design, ZTT can also guarantee the high-end engineering capabilities and life cycle maintenance services.

