



Professional Grade **650B Update Double Twist Bunching Machine** with **2 Year Warranty!**

The quality of our **650B Update Double Twist Bunching Machine** is second to none. Can do conductor stranding from **0.0088mm² to 0.45mm²** .products are widely used in **IT communications, aerospace, military, medical, locomotives, automobiles, robots, ships, 5G cloud databases and other fields.**

650B Update Double Twist Bunching Machine apply for the bunching of aerospace, medical instrument, cellphone, notebook PC and ultra fine conductor (above seven pcs of alloy wires, tinned wires, silver jacketed wires and enamelled wires).

Merits:

1. **650B Update Double Twist Bunching Machine** is High speed, constant tension from empty reel to full reel, excellent quality of stranded wire, which can be used for stranding instead of stranding to meet customer's requirements for stranding of small cross-sectional area. The whole machine is driven by a synchronous belt, and only the take-up wheel needs to be replaced when changing the lay length ,easy to use.

2. **IoT (optional): 650B Update Double Twist Bunching Machine** information of multiple devices can be integrated on multiple mobile phones or computers, and the operation of the machine can be checked at any time, such as speed, stranding specifications, line speed, output, equipment maintenance, etc., and can be online at the same time Diagnosis and remote maintenance, etc., to achieve refined management and reduce production and maintenance costs.



This **650B Update Double Twist Bunching Machine** is CE approved



3. Can fit 380V to 440V, 50HZ to 60HZ, color can be customize

3 phase 4 wires, R, S, T, PEN

3 phase 5 wires, R, S, T, PE, N

4. Type:

650B Update Double Twist Bunching Machine for single wire 0.2-1.04mm stranding, cross section 0.8-16.0mm², pitch range 18.5-126mm (please refer to page 6-12)





5. Some Option:

Set-up:

China standard: Veinview HMI + Inovance PLC & Invertor + Siemens Motor

Siemens standard: Siemens HMI & PLC & Invertor+Siemens Motor



Spindle lubrication: manual lubrication / PLC lubricator



Power Cabinet: Embedded type / plug in type / Stand alone type / Synoptic



panel type



Spool Lift: manual hydraulic pump / electrical hydraulic pump / electrical screw rod



Take-up tension type: Magnetic powder clutch / Hollow shaft clutch / Hysteresis clutch



IOT remote system and temperature sensor



Pay terms: T/T, L/C.

Package:

- 1) Simple water-proof package
- 2) Pallet package
- 3) Pallet with Vacuum package
- 4) Wooden box package





650B Update Double Twist Bunching Machine Specification

➤ **Merits:**

- 1.High speed and good stability (the motor is directly connected to the drive shaft through a rigid coupling).
- 2.Take up tension can be controlled on line automatically, take up received increasing while bunching. It can track and regulate take up tension automatically, which makes take up tension of whole spool same, otherwise, it's able to regulate tension when machine shut down.
- 3.Adopt advanced wire guiding device, Traverse from spindle guide wheels such as wire scratch, core mess.
- 4.Way of spindle lubrication: flying cheap-oil lubrication, (with four storage tank) in the front of and at the back of machine there are two fuel tanks. Oil was thrown behind the oil tank thrown in front of the fuel tank, the tank through the front to the back fuel tank, oil in housings natural cooling.
- 5.Safety Protection: Main axis bearing oil level is controlled by limited switcher. If it lower the setting oil level, auto-alarming or can't start on touch screen. All doors and lifting platform can not be opened when any of them is not in exact position. External break will auto-alarming or can't start on touch screen.
- 6.Spindle and aluminum wheels had be treated by high-speed balancing devices, noise index is lower than 80dB.
- 7.Electrical control: Touch screen friendly surface personalize operate and controlled by PLC +inverter.
- 8.The bow is excellent quality SK5 of Japan, which imported in Taiwan and is heat treatment and plating chrome on surface.
- 9.Driven by synchronization strap ensure the exact lay, no any lubricating point in machine ensure cleanness inside machine result of refueling pollution, there are not defective wire and ripped wire in machine.
- 10.Transform standard lay length: convenient to operate, only need to change one capstan wheel for reference standard lay length list.
- 11.Compress device:get higher round ratio
- 12.Meter counter:External meter counter

➤ **(Capstan wheel change pitch) Main performance parameter**

1. Usage: It is applied to the stranding of bare twisted wire, tinned, copper covered aluminum, lacquer wire and alloy wire.
- 2.Diameter of single core: $\phi 0.20 \sim \phi 1.04 \text{mm}$
- 3.Outer diameter of wire: $\phi 0.84 \sim \phi 5.2 \text{mm}$
- 4.Crossection area: $\phi 0.8 \sim \phi 16 \text{mm}^2$
- 5.Size of take up spool: $\phi 630 \text{mm} \times \text{length} 475 \text{mm} \times \text{inner core} \phi 127 \text{mm}$ (according to client's drawings to make).
- 6.normal production speed at 1400RPM(2800TPM),different diameter,different speed
- 7.Type of traverse: $\phi 30 \text{mm}$ rolling ring traverse,winding pitch and breadth are adjustable.



8. Standard lay length: 18.5-126mm
9. Main motor: 15KW AC motor +frequency converter
10. Weight of copper load: about 500kg
11. Direction of strand: free optional for S and Z right or left,when adjusting the twisting direction, you only need to pull the reversing lever at the flexing device by hand, and the operation is simple
12. Brake: electromagnetic brake for external break, automatic stop when wire reach setting meter.
13. Tension control: take up tension is controlled by magnetic powder clutch, PLC follows up and regulates tension ,constant tension.
14. Drive bearing: spindle with SKF bearings,others with Japan NSK.
15. Synchronization strap: it is adopted imported American product.
16. Spool from top to bottom: manual pump hydraulic lift.
17. Way of spindle lubrication: Splash oil lubrication.
18. Index of noise: less than 82dB
- 19.Dimension: (length×breadth×height): 3600×1500×1650
20. Weight: 4500Kg
21. Coating: apple green (or customized).
22. Package: simple waterproof packing
23. Direction: from right to left, when you are in the face of front door, and pay-off on your right (may according to customer's requirements to make).
24. Sealing of machinery door: seal of plastic.
25. Spindle housings sealing: mechanical block oil ring

➤ **Mechanical performance :**

1. Mechanical body structure:
 - 1)Material: low carbon steel welding form
 - 2)Structure: the mechanical body is treated by annealing , eliminate stress, precision boring machine through a molding process.
2. Inlet part:
 - 1)Inlet location: in the face of machine, on your right (may according to customer's requirements and correct to "left").
 - 2)Way of inlet: from pay-off device pass by wire breakage induction district, first through total sub-panels (hole-line distributed as 1+6+12+...) through the first isobar die, and through the second isobar die, at last get into wire guiding round of the right spindle. Through Al-arch belt ceramic ring enter wire guiding round of the left spindle , through center corner round to capstan wheel, after passing by the third isobar die to arrange wire (Details for way of thread diagram).
3. Spindle
 - 1)Material: 45# steel quenched and tempered after forging.
 - 2)Accuracy: cylindrical core shaft and bearing positioning end are all lapped, ensure that the concentricity of axis core and the vertical degrees.
 - 3)Balancing: the accuracy of balancing is G2.5 grade .
- 4 Aluminum disk



- 1)Material: ZL104
- 2)Accuracy: all cylindrical end relative positioning holes beating 0.03.
- 3)Balancing: the accuracy of balancing is G2.5 grade .
- 5. Flyer Bow
 - 1)Material: imported Japan SK5 heat treatment.
 - 2)Shape: special appearance and reduce wind resistance.
 - 3)The variance of weight: each variance of weight < 0.03 grams.
- 6. Drive part: Drive by imported timing pulley, standard lay length is exact,
- 7. Wire guiding wheel
 - 1)Material: #45 steel heat treatment HRC30-40.
 - 2)Plating hard chromium or spraying ceramic on surface, not been worn.
- 8. Spindle housings
 - 1)Material: ductile iron QT42-10.
 - 2)Processing: CNC machine tools
 - 3)Accuracy: inner hole end, a molding process to ensure the concentricity.
- 9. Bearing spindle lubrication system:
 - 1)Way of lubrication: Splash oil lubrication
 - 2)Model of oil: 46 wear-resistant hydraulic oil
 - 3)Way of sealing: mechanical retaining oil ring and back oil hole to prevent oil leakage and maintain internal cleaning of machine.
- 10. Take-up:Take-up tension control is controlled by magnetic powder clutch . PLC automatic follow-up and regulate tension, the tension is constant.
- 11.Cable laying: special bi-direction ϕ 30 screw, space can adjustable
- 12. spoolSize:

Diameter (ϕ D)	Aperture (ϕ d)	Outer Width (L1)	Inner Width (L2)	Position hole	PND
630	127	475	400	26	200

(Or customized)

- 12. Dynamic power : 7KW
- 13. Installed power : 11KW

➤ Detail Specifications

Description of goods	Model	Remark
1. Main motor	11KW-6P 380V 50Hz	Siemens
2. Invertor	11KW	Inovance
3.PLC programmer	32MR	Inovance
4.PLCexpander	1SET	Inovancei
5.Touchscreen	7 Inch	WEINVIEW
6.Electromagneticbrake	24KG	Taiwan
7.Magnetic powder clutch	10Kgf	Taiwan
8.Spindle Bearing	1 set	Sweden SKF
Main Shaft Bearing	1 set	Japan NSk
9.Timing belt	1 set	American Gate



10.Traverse	Gp30(special made bidirectional)	Shanxi Tian Xiang
11.Manual hydraulic pump	10T	Taiwan
12.Tension controller	10V	Taiwan
13.Fly bow	1set	Japan
14.Body	one set	Self-Processing
15.Spindle	2Pcs	Self-Processing
16.Aluminum disk	2Pcs	Self-Processing
17.Timing Pulley	1set	Wu Xi
18.Bearing housings	one set	Self-Processing
19.Dics	2Pcs	Self-Processing
20.Transmission Shaft	1Pcs	Subcontracting
21.Capstan wheel	1set	Self-processing with hard chrome plating
22.Wire guiding wheel	6Pcs	Self-processing with hard chrome plating

➤ **Spare parts sheet**

No.	Description	Model	Qty	Remark
1	Spindle guide wheel	(with Bearings)	1SET	
2	Wire guide wheel	(With Bearings)	1SET	
3	Loops in Bow	Tungsten steel	3pcs	
4	Split plate porcelain ring	Φ6.8	3pcs	
5	Stranded Die	According client structure	1PCS	
6-9	Timing belt		1pcs	
10	Spool Top sleeve	According to reel drawings	1SET	
11	Tool	With hex wrench, open wrench and etc	1SET	
12	Operating instructions		1SET	
13	Electrical Schematic		1SET	
14	Inverter manual		1pcs	

❖ **Dual 630 Double shaft multi-wires active pay-off**

It is constant tension control, Non-twist wires pay-off unit, apply for single conduct and multiple drawing wires pay-off, each reel separated control by inverter,no interface ,easy operate and save space.



- 1) Single Wire range: 0.08-0.64mm
- 2) Speed: Max 200m/min
- 3) Reel Size: 630*125*475
- 4) Tension control:
 - ①with pneumatic cylinder on the rocker,can change pressure value;
 - ②Use Counterweight Regulate to change the wire tension
- 5) Driver: 1.5KW Special 3phases motor with brake through belt to control the spool action;drive by inverter
- 6) Brake: Use disc spring inner brake to stop the motor rocker,can adjust the pressure value to change the wire tension
- 7) Speed control:senor feedback the signal to the inverter to control the speed of pay-off and the host
- 8) Reel load: Use Manual Hydraulic lift(Client provide)
- 9) Coating: RAL 5015 Sky Blue
- 10) Weight: 600KG
- 11) Parameter:

Description	Model	Brand	Remark
1.Inverter	1.5KW	YASKAWA	
2.Motor	1.5KW-6P Special inverter motor	SFC	
3.Bearings	1SET	NSK	
4.Senor	SYL18	FOTEK	
5.Precision pressure regulating valve	IR2020-02	SNS	
6.stainless steel cylinder	MA25*300	SNS	



序号 Serial No.	绞距轮底径 Bottom Dia of Pitch Wheel	A传动绞距 A Drive Pitch	B传动绞距 B Drive Pitch
1	φ51.80	18.5	/
2	φ60.35	21.5	
3	φ65.84	23.3	
4	φ71.33	25.3	58
5	φ76.81	27.2	62
6	φ82.30	29.2	67
7	φ85.59	30.3	69
8	φ87.79	31.2	71
9	φ93.27	33.0	75
10	φ98.76	35.0	80
11	φ104.25	36.8	84
12	φ109.73	38.7	89
13	φ115.22	40.8	93
14	φ120.70	42.6	97
15	φ126.19	44.8	101
16	φ141.78	50.3	114
17	φ157.60	55.7	126



