



PAN-PIONEER Co., Ltd.

民鋒股份有限公司

## Specification

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*Name: 1000mm 7B(4B) Double twist bunching machine  
[CCCS Operation System]*

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### 1.] Main specification:

- 1.1.) Type: Double twist type without backtwist stranding, Capstan individual motor driven
- 1.2.) Applications:
  - 1.2.1.) Stranding for 7 wires annealed copper conductor
  - 1.2.2.) Stranding for 2-4 cores PVC insulated cable
- 1.3.) Supply wire dia.:
  - 1.3.1.) 0.8-2.5 mm annealed copper conductor
  - 1.3.2.) 2-5 mm 2-4B PVC cable core
- 1.4.) Finished wire dia: 15mm Max.(PVC cable)
- 1.5.) Pay off bobbin: 560-630mm
- 1.6.) Take up bobbin: 1000mm DIN. standard
- 1.7.) Rotor speed: 2200Twist/min Max. for 7B stranding  
1100 Twist/min Max. for 4B cable twisting
- 1.8.) Stranding pitch: 30-200mm, digital step less pitch setting
- 1.9.) Take up bobbin loading: over head electric hoist (option)
- 1.10.) Driven motor:
  - 1.10.1.) For bow: HP DC motor
  - 1.10.2.) For capstan: HP DC motor
  - 1.10.3.) For take-up: Kg-M torque motor
- 1.11.) Electric control: AC motor with vecector close loop control.

### 2.] Machine composition:

- 2.1.) Wire tension control device ..... 1 set
- 2.2.) Wire pre-twisting device ..... 1 set
- 2.3.) 1000mm Bunching machine ..... 1 set
- 2.4.) Driven motor c/w control panel ..... 1 set



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**Name: 630mm Double Twist Bunching Machine**

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**630mm Double Twist Bunching Machine**

**1.] Main specification:**

- 1.1.) Type: Double twist bunching without back twist
- 1.2.) Application:
  - 1.2.1.) Multiple wires bunching, up to 100 fine copper wires.
  - 1.2.2.) 7B wires accurate construction of annealed copper wires stranding.
- 1.3.) Individual wire diameter:
  - 1.3.1.) Flexible wire: 0.12mm - 0.35mm multiple wires, up to 100 wires.
  - 1.3.2.) 7 wires stranding: 5.5mm sq. Max. (7/0.4mm – 1.04mm)
- 1.4.) Rotor speed: 1800Rpm.Max. (3600 Twist/Min)
- 1.5.) Stranding pitch: 11-60mm
- 1.6.) Take up bobbin size: 630mm/OD x 475mm/AW DIN. Max.(Or customer's request) 560mm/OD x 425mm/AW DIN. Min.
- 1.7.) Driven motor: 10HP AC motor c/w INVERTER

**2.] Machine composition:**

- 2.1.) 630mm-7B Flyer pay-off..... 1 set (Option)
- 2.2.) 630mm bunching machine ..... 1 set
- 2.3.) Length counter ..... 1 set
- 2.4.) Bobbin loading/unloading ..... 1 set
- 2.5.) Wire broken detector ..... 1 set

**3.] Excluding items:**

- 3.1.) 315mm-Multi-wire pay-off..... 1 set(option)

**4.] Standard spare parts:**

- 4.1.) Lay pitch gears ..... 1 set
- 4.2.) Steel bows with guider ..... 1 pair
- 4.3.) Timing belt..... 1 set
- 4.4.) Flat belt ..... 1 set
- 4.5.) Tools for operation ..... 1 set



## 5.] Detail specifications:

### 5.1.) Bunching machine:

#### 5.1.1.) Die plate:

- a.) Type: ratchet adjusting type.
- b.) Guider die: 5mm ID. ceramic die.
- c.) Moving distance: 100mm Max.
- d.) No.of die holes: as per request.

#### 5.1.2.) Stranding bow:

- a.) Type: Flexible bow type.
- b.) Material: spring steel with dynamic balancing test.
- c.) Guider die: a number of ceramic dies fixed on the wire path to reduce friction force between bow and wire during stranding.
- d.) Driven: each end of flyer driven by a timing belt through the counter shaft.
- e.) S & Z stranding:
  - 1) Changing the motor rotating direction by selector inside the control panel.
  - 2) Changing the take-up direction gear which mounted inside the machine.

#### 5.1.3.) Capstan:

- a.) Type: dual wheel type.
- b.) Capstan dia: 150mm dia with 4 & 5 grooves
- c.) Stranding pitch: 11-60mm. or as per customer's option pitch changed by change gears.
- d.) Material: Made of carbon steel, surface with hard chrome plated.

#### 5.1.4.) Take up cradle:

- a.) Type: shaftless type, drum locked by screw spindles on both sides of cradle.
- b.) Take up drum: (DIN-46397)  
630/ODx355/IDx475/AWx400/TWx127/BD Max. (kg)
- c.) Driven system: driven by capstan shaft through a pair of slip clutch to spooler.
- d.) Pulling tension: adjusted by springs of slip clutch.
- e.) Traverse: Bearing type traverser having a 400mm traversing stroke made in Europe.
- f.) Traversing pitch: 2-16mm, both stroke & pitch are adjustable.

#### 5.1.5.) Rotor:

- a.) Main shaft: 2 pcs of main shaft are supported by stands separated on each end of machine with heavy duty bearings surrounded on it, a gear pump for oil lubrication is provided on each support stand.
- b.) Rotor brake: Magnetic type disc brake on the counter shaft for emergency stop of machine, braking time 4-6 seconds

#### 5.1.6.) Safety cover:

- a.) Type: front door open type with two layers cover. Inner side made of anti-noise material, working noise not over than 80dB.



- b.) There are a plastic glass windows on the front top side for easy inside viewing.
  - c.) A 20 watts fluorescent lamp installed inside the safety cover.
- 5.2.) Length counter:
- 5.2.1.) Type: 5 figures digital type auto-counter.
  - 5.2.2.) Counting unit: 1 meter/ counting
  - 5.2.3.) Counting wheel dia: 159mm. with 2 pcs of sensor teeth
  - 5.2.4.) Pulse detecting:  $159\pi \times 2=1M$
  - 5.2.5.) Auto stop: when the counter length has been reached machine will stop automatically.
- 5.3.) Loading and unloading device:
- 5.3.1.) Front loading with hydraulic hand jack lifter.
  - 5.3.2.) Loading capacity: Kgs Max.
- 5.4.) Auto stop device:
- 5.4.1.) In case of wire broken.
  - 5.4.2.) In case of counter pre-set length has been reached.
  - 5.4.3.) In case of safety covers out of position.
- 5.5.) Electric operation panel:
- 5.5.1.) Power source control
  - 5.5.2.) Ampere/voltage meter
  - 5.5.3.) INVERTER control panel
  - 5.5.4.) Length counter
  - 5.5.5.) Rotor RPM indicator
  - 5.5.6.) Pilot lamps
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Size(mm)	630	800	1000	1250	1600
7B PAY OFF(mm)	0.4-1.04	0.6-2.2	0.8-2.4	1.1-2.6	1.4-3.0
Twisting Speed (tpm)	3600	2400	1800	1500	1000
Line Speed (Mpm)					
Pitch Range	Custom-Design				



560/630mm bunching machine



800/1000 mm Double Twist machine