

# Planetary Strander



Planetary strander is an important equipment for wire and cable stranding. It is mainly used for copper stranded wire, aluminum stranded wire, steel stranded wire, steel core aluminum stranded wire, and cabling of insulated wire core and OPGW stranding, etc.

Generally, the traditional planetary strander adopts the ground shaft transmission type, and the transmission of capstan and the stranding cage are usually driven by the same motor through the reduction box, gearbox, ground shaft, angle box, etc. The traversing line is controlled individually or adopts centralized transmission and controlled by the above motors.

This structure has many disadvantages:

- (1) The ground shaft transmission is an open transmission with poor lubrication conditions and foreign objects such as dust are easy to enter will cause gear wear and damage and loud noise at the work site.
- (2) Adopting gear shifting, the gearbox structure is complex, and the gap between the shifting gears is large, which is prone to motion shock and damage the ground shaft, gears, box, etc. At the same time, because of its complicated mechanical structure, it makes the maintenance and repair of the whole machine more difficult.
- (3) Restricted by the ground shaft, the speed of the twisting cage is low, and the production speed is difficult to increase, which restricts the production efficiency of the twisted wire production.
- (4) Due to the fixed speed ratio of the gearbox, its pitch can only be changed within a limited range, and it is impossible to achieve the pitch required for certain process designs.

The cradle stranding machine developed by our company integrates the stranding production process of domestic first-class cable manufacturers, adopts the sub-motor transmission mode, and each winch and traction are driven by separate motors.

## 1. Features

1. Each parts of this equipment is driven by independent motor with low noise and without cage.
2. Human-machine interface, you can set, display and adjust the parameters on touch screen. Easy operation improves the production efficiency.
3. The stranding pitch can realize the stepless adjustment and large pitch range is easy to improve the production technology.
4. Adopting planetary gear structure, can realize 100% back-twisting.

## 2. Main Technical Parameters

Bobbin	Max. Rotation speed (rpm)	Single wire (mm)
--------	---------------------------	------------------

size (mm)	With roller						Without roller				Aluminum wire	Copper wire	Aluminum clad steel	Optical fiber unit
	6B	8B	12B	16B	18B	24B	6B	12B	18B	24B				
φ400	12 6		112		98	86	155	140	122	108	1.5 ~ 4.0	1.2 ~ 4.0	1.2 ~ 3.5	2.5 ~ 4.0
φ500	10 5		93		82	71	136	123	110	97	1.5 ~ 5.0	1.3 ~ 5.0	1.3 ~ 3.5	3.0 ~ 5.0
φ630	85	80	74	70	65	57	110	96	84	74	1.8 ~ 6.0	1.5 ~ 6.0	1.5 ~ 4.5	3.0 ~ 6.0

Compared with the traditional ground shaft-driven cradle stranding machine, the multi-stage gearbox and ground shaft transmission system are abandoned, which simplifies the complex mechanical structure of the whole machine, reduces the difficulty of mechanical maintenance and reduces the noise on the production site. The pitch variation range is wide, and the stepless adjustment of the pitch can be realized, which is convenient for improving the production process and can meet the process requirements of different stranded products.

Product link : <https://www.linttop.com/planetary-strander.html>