
Double Twist Stranding Machine



The conductors of the power cables mainly adopt the stranded structure by using stranding machines such as tubular strander and rigid frame strander for layered and directional stranding. For power cables with a number of conductors of 19 or less, a layered and co-directional twisting method can be used, which is a more commonly used twisting method at present. This requires a high-efficiency, low-cost stranding machine to meet the needs of the market, hence a new type of high-speed stranding machine came into being.

We can provide LT1250 and LT1600 high-speed stranding machines, which are mainly used for stranding 7-19 copper wires, aluminum wires/aluminum alloy wires, and also for stranding 2 to 4 PVC insulated core wires. The high-speed stranding machine we provide is a double-pitch stranding machine (double twisting machine), which can form two stranding pitches per rotating of the bow, and the production efficiency is twice that of the ordinary single-pitch stranding machine.

The LT1250 and LT1600 high-speed stranding machines can partly replace tubular strander and rigid frame strander. Compared with tubular strander and rigid frame strander that can produce such products, this machine has the characteristics of high production efficiency and less floor space. It is currently the most cost-effective equipment for stranding 19 or less power cable conductors.

Compared with the traditional stranding machine, the LT1250 and LT1600 double twist stranding machines not only have higher production efficiency, but also can compress the stranded conductor.

1. Features

The high-speed stranding machine we provide has the following characteristics:

- (1) Using carbon fiber synthetic twisting bow, which is strong and can ensure high-speed rotation;
- (2) Each part of the whole machine (twisting bow, traction, take-up) is driven by independent motors;
- (3) The sound insulation adopts a closed safety cover with low noise under 85db;
- (4) Stepless pitch adjustment which can be set on the touch screen;
- (5) Man-machine interface control system, easy to operate;
- (6) With compression device for stranding wires;

- (7) The take-up tension is controlled by an independent motor;
 (8) Adopt precision type take-up tension control system;
 (9) The electromagnetic brake is used for braking which can automatically brake and stop when the internal and external wires are broken or various failures.

2. Main Technical Parameters

Model		LT1250	LT1600
Stranded cross sectional area (mm ²)	Copper wires	10 ~ 50	10 ~ 90
	Aluminum wires/Aluminum alloy wires	10 ~ 70	10 ~ 120
The outer diameter of the stranded insulated wire (mm)		5 ~ 15	5 ~ 20
Stranding speed (rpm)		Max.800	Max.500
Stranding pitch (mm)		40 ~ 350	40 ~ 350
Stranding direction		S or Z	S or Z
Take-up bobbin (mm)		800 ~ 1250	1200 ~ 1600

Taking 7 regular stranded conductors as an example, the following table shows the capacity comparison of LT1250 high-speed stranding machine, high-speed 630-type tubular stranding machine and ordinary 630-type tubular stranding machine:

Capacity table of LT1250 double twist stranding machine

Nominal cross sectional area (mm ²)	Wire diameter of conductor (mm)	Stranded wire outer diameter (mm)	Lay ratio	Stranding pitch (mm)	Actual cross-sectional area (mm ²)	Weight per meter (kg/m)	Stranding speed (rpm)	Production speed (m/min)	Capacity (kg/h)
10	1.38	4.14	15	62.1	10.47	0.09	700	86.9	486.1
16	1.78	5.34	15	80.1	17.42	0.16	650	104.1	968.6
25	2.15	6.45	15	96.75	25.41	0.23	600	116.1	1575.5
35	2.52	7.56	15	113.4	34.91	0.31	600	136.1	2536.9
50	3.0	9.0	15	135	49.48	0.44	500	135.0	3566.9

Capacity table of high-speed LT 630 tubular stranding machine

Nominal cross sectional area (mm ²)	Wire diameter of conductor (mm)	Stranded wire outer diameter (mm)	Lay ratio	Stranding pitch (mm)	Actual cross-sectional area (mm ²)	Weight per meter (kg/m)	Stranding speed (rpm)	Production speed (m/min)	Capacity (kg/h)
10	1.38	4.14	15	62.1	10.47	0.09	500	31.1	174.6
16	1.78	5.34	15	80.1	17.42	0.16	500	40.1	372.5

25	2.15	6.45	15	96.75	25.41	0.23	500	48.4	656.5
35	2.52	7.56	15	113.4	34.91	0.31	500	56.7	1057.1
50	3.0	9.0	15	135	49.48	0.44	500	67.5	1783.5

Capacity table of normal LT 630 tubular stranding machine

Nominal cross sectional area (mm ²)	Wire diameter of conductor (mm)	Stranded wire outer diameter (mm)	Lay ratio	Stranding pitch (mm)	Actual cross-sectional area (mm ²)	Weight per meter (kg/m)	Stranding speed (rpm)	Production speed (m/min)	Capacity (kg/h)
10	1.38	4.14	15	62.1	10.47	0.09	300	18.6	104.2
16	1.78	5.34	15	80.1	17.42	0.16	300	24.0	223.5
25	2.15	6.45	15	96.75	25.41	0.23	300	29.0	393.9
35	2.52	7.56	15	113.4	34.91	0.31	300	34.0	634.2
50	3.0	9.0	15	135	49.48	0.44	300	40.5	1070.1

Comparison table of production capacity of LT1250 double twist stranding machine and 630 tubular stranding machine

Nominal cross-sectional area (mm ²)	Capacity (kg/h)			Capacity comparison	
	LT1250	High-speed LT 630 tubular stranding machine	Normal LT 630 tubular stranding machine	LT1250 and High speed 630 tubular stranding machine	LT1250 and Normal 630 tubular stranding machine
10	486.1	174.6	104.2	2.78	4.67
16	968.6	372.5	223.5	2.6	4.33
25	1575.5	656.5	393.9	2.4	4.0
35	2536.9	1057.1	634.2	2.4	4.0
50	3566.9	1783.5	1070.1	2.0	3.33

From the above capacity comparison table, it can be concluded that the capacity of the LT1250 high-speed stranding machine is (2 ~ 2.78) times that of the high-speed 630-type tubular stranding machine; (3.33 ~ 4.67) times that of the ordinary 630-type tubular stranding machine which really achieve highly productive and efficient.

Product link : <https://www.linttop.com/double-twist-stranding-machine.html>