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# LH450/13 Sliding Aluminum Rod Drawing Machine

## Technical Specification and Quotation Sheet

Unit price : FOB SHANGHAI in USD: 187,100.00

Delivery date : 90 days

### 1、Application:

This machine is mainly used to draw 9.5 mm (or 12 mm) aluminum rod into 1.8 - 4.5 mm aluminum wire. The drawing capstans are arranged in one row , the fixed speed capstan and the other 12 drawing capstans are driven by two motors respectively . Greatly facilitate the operation. Can realize the quick die change.

### 2、Main technical parameters:

2.1 Inlet diameter range:	9.5 mm (12 mm)
2.2 Outlet diameter range:	1.7mm - 4.5mm
2.3 Max.line speed:	25m/s (630 high speed bobbin)
2.4 Drawing capstan diameter:	450mm
2.5 Max.drawing steps:	13 steps
2.6 Drawing dies overall dimension size:	38×25mm
2.7 Wire storage unit capacity:	7m
2.8 Dual take-up bobbin specifications:	PND500 - PND630
2.9 Main motor power:	250KW (DC)
2.10 Fixed speed capstan motor power :	55KW (DC)
2.11 Dual take-up bobbin motor power:	30KW (DC 2 pcs)
2.13 Overall dimension size: L×W×H	21000×5310×4800 mm

### 3、Equipment components:

3.1 Cantilever pay-off rack	1 set
3.2 Main drawing unit	1 set

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3.3	Wire storage device	1 set
3.4	500 - 630 dual bobbin auto take-up unit	1 set
3.5	Dog end and cross dies machine	1 set
3.6	Host machine oil supply station	1 set
3.7	Aluminum drawing lubricant supply station	1 set
3.8	Electrical control system	1 set

#### 4、Description of main components:

##### 4.1 Cantilever pay-off rack

###### 4.1.1 Type: Cantilever type

4.1.2 Pay-off rack is mainly by support frame ,diversion trolley.

4.1.3 Pay-off rack height 4800mm , can place 2 reels of aluminum rod to realize continuously pay-off.

4.1.4 Pay-off cantilever rack move between the two reels of aluminum rod.

4.1.5 With whole production line linkage stop device.

##### 4.2 Host aluminum rod drawing machine

4.2.1 Sliding type 。 Aluminum rod drawing machine with 13 equal diameter drawing capstans.

4.2.2 The host machine is mainly composed of drawing lubricant cooling circulating tank , transmission gearbox, transmission lubricating system , main driven motor , fixed speed capstan driven motor ,etc.

4.2.3 Cross dies inching switch 4 pcs , and with anti-inversion set .

4.2.4 Distance stays the same , between the drawing capstan ,drawing dies stands and the gear box , now this is the most advanced structure layout in the world .

4.2.5 Drawing capstan rim is made of steel , surface tungsten carbide

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spraying , long capstan rim working life.

4.2.6 This machine is quick drawing dies change type , when change the drawing size , only need to add or reduce high speed part drawing dies , this can reduce the drawing dies specifications.

4.2.7 Gearbox lubricating system power  $2.2 \times 2 = 4.4$  KW , 1 motor oil pump standby, enclose heat exchanger, to cool and lubricate the gear and bearing.

4.2.8 Drawing capstan box has 2 stainless steel cover , to avoid drawing lubricant leakage.

4.2.9 Drawing lubricant is by immersive and spraying type , to guarantee the capstan and drawing dies cooling and lubricating .Enclose drawing lubricant supply station and heat exchange cooling system .

4.2.10 To avoid the machine operating without lubricating , this system has oil break alarm device and automatically stop .

4.2.11 The host machine bearing adopts Japan NSK brand.

4.3 Wire storage tension control device

4.3.1 Wire storage capacity 7m

4.3.2 Max.tension 138N

4.3.3 Tension control is by cylinder air pressure adjustment.

4.4 Dual bobbin auto take-up unit

4.4.1 Wire take-up bobbin type: PND500 - PND630

4.4.2 Max.wire take-up speed: 25M/S

4.4.3 Take-up motor : 30KW (DC 2 pcs)

4.4.4 Reduce speed to shift the bobbin , decrease full bobbin motion inertness , shorten stop time , brake is pneumatic plate type .

4.4.5 Traversing pitch can be adjusted freely.

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4.4.6 Pneumatic lifting the bobbins , pneuma-lock and loosen the bobbin , has mechanical safety device.

4.4.7 Setting preset length , automatic bobbin shift when reaching the length , from full bobbin shifting to the empty bobbin , bobbin shift catching rate can be  $\geq 99\%$ .

4.5 Dog end and cross dies machine

4.5.1 Dog end capstan diameter size : 100mm

4.5.2 Dog end capstan rotating speed : 24r/min

4.5.3 Capstan diameter: 430mm

4.5.4 Dog end with clipping function.

4.5.5 Cross dies chuck is zigzag shape , when tensioning to traverse into circle automatically.

4.5.6 Motor power: 3KW

**5、Electric control system**

5.1 Control system adopts DC entrance controller.

5.2 The whole machine adopts PLC programe touch screen integrated and coordinated control.

5.3 The machine power is 3 phase and 5 wire system ,  $380V \pm 10\% 50HZ$ .

**6、Others**

6.1 Machine operation direction : Right hand machine .

6.2 Machine colour : By client provided colour sample.

**7、Along with the machine provide the following documents**

7.1 Layout of the equipment、foundation drawing

7.2 Electricity and air piping diagram

7.3 Operation manual



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