

## 20 Dies Middle-Fine Wire Drawing Machine



### I. Technical specification

- |                               |  |
|-------------------------------|--|
| (1) Input wire:               | Φ1.0 — 1.6mm   |
| (2) Output wire:              | Φ0.17 — 0.6mm  |
| (3) Production speed:         | Max 1600m/min  |
| (4) Capstan Diameter:         | Φ 200mm  |
| (5) Number of dies:           | 20(Only)   |
| (6) Wire drawing lubrication: | Lubrication by full immersion                            |
| (7) Outer diameter of dies:   | Φ25mm x8- 13mm (thickness)                               |
| (8) Mechanical elongation:    | By the dies from the 1st to 19th,17%By the 20th die, 10% |
| (9) Main motor power:         | 15kW-4P AC motor   |
| (10) Take-up motor power:     | 4kw-4P /5.5kw AC motor                                   |
| (11) Take-up control:         | Automatic Modification and control of take-up tension    |
| (12) Take-up Capacity:        | 80kg, max  |
| (13) Take-up reel:            | Φ300mm-400mm, max  |
| (14) Brake:                   | Electromagnetic brake                                    |
| (15) Supply voltage:          | 380V-480V AC, 50/60Hz, 3-phase                           |
| (16) Power consumption:       | 8– 18 kW   |
| (17) Machine dimensions:      | 2800L x1500W x1650H (mm)                                 |
| (18) Machine weight:          | 2500 kg  |

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### II. Machine construction

- (1) Pay-off stand
- (2) Drawing machine
- (3) Take up
- (4) Electrical control part

### III. Electric control

1. Electric control components: Imported electric control components with high reliability to ensure steady operation of the machine..

2. Supply voltage: 400V – 480V AC, 50/60Hz, 3-phase

3. Tension control: A special-purpose tension control inverter is used to ensure steady tension so as to improve the surface quality of the wire.

4. Power control: Dual-inverter-drive is used to reduce mechanical energy loss so that energy-saving and reduced power consumption are achieved.

5. Power control: The drawing motor has a capacity of 15kW AC and the take-up motor 4kW AC. A frequency conversion speed regulator with stepless speed regulation is used to control the power. The present line speed can be displayed automatically on the line meter.

6. Wire drawing: Slip type continuous wire drawing with four horizontal shafts.

7. Drive: Brushed part of the flat belt drive. Flat belt drive is employed in the annealing zone where power is transmitted from the wire drawing zone. flat belts and take-up shaft drive is employed in the take-up zone.

8. Automatic stop: This function includes automatic stop with full reel, automatic braking at wire breakage, braking at traverse overshoot and automatic braking at abnormal operation of the speed regulator, motor, etc.

### IV. Selection of parts and components

No	Name	Manufacturer	Place of origin	Remarks
1	Inverter	YASKAWA	Japan	
2	3-phase asynchronous motor	Siemens	China	

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3	Air switch	Fuji / Schneider	Japan / France	
4	AC contactor	Schneider	France	
5	Intermediate relay	Schneider	France	
6	Low Voltage appliances	Schneider	Taiwan or France	
7	Bearing	NSK OR SKF	Japan or Germany	
8	Wire-speed table	Mitsu	Joint venture	
9	Counter	Mitsu	Joint venture	
10	Control panel	Tend	Taiwan	
11	Driving flat belt	Habasit	Switzerland	
12	Drawing cone	Chuangkang	Taiwan company	invested
13	Proximity transducer	Autonics	Korea	
14	Guide Pulley	Chuangkang	Taiwan company	invested
15	Electro Magnetic brake	Newly-developed product	China	

### V. Machine components and accessories

No.	Name	Unit	Quantity	Remarks
1	Pay-off stand	set	1	
2	Drawing machine	set	1	
3	Tension unit	Set	1	

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4	Take-up	Set	1	
5	Electric control cabinet	Set	2	
6	Accessories supplied with the machine			
6.1	Unloading plate Wrench	Set	1	
6.2	Power supply cords	Set	1	
6.3	Anti-vibration rubber base	Set	5	

#### Yield table:

Size/Speed	1600m/min	1500m/min	1200m/min	1000m/min
0.17mm	19.2kg/Hour			
0.2mm	26.5kg/Hour	25kg/Hour		
0.3mm		56.5kg/Hour	45kg/Hour	
0.4mm			80kg/Hour	67kg/Hour
0.5mm			125kg/Hour	104.8kg/Hour
0.6mm				150kg/Hour

#### VI. Others

Coating: Paint-spraying according to the color required by the Buyer after anti-rust treatment or sky blue.