Technical Description
Universal rolling machine
W11S-120x3200

1. Summarize:

This machine used to coil plate into different sharps such as cylindrical form, conic form and arc, it adopted Japan hydraulic technical.

Top roll can does vertical and level motion, up and down, parallel translation is display. This machine include pre-bending function.
2. Main technical data:

<table>
<thead>
<tr>
<th>Project</th>
<th>Units</th>
<th>Technical Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>Specifications</td>
<td></td>
<td>W11S-120*3200</td>
</tr>
<tr>
<td>Upper roller adding pressure</td>
<td>T</td>
<td>1600</td>
</tr>
<tr>
<td>Max width of roll board</td>
<td>mm</td>
<td>3200</td>
</tr>
<tr>
<td>The length of working rolls</td>
<td>mm</td>
<td>3300</td>
</tr>
<tr>
<td>Max thickness of plate</td>
<td>mm</td>
<td>T100<em>B3200</em>φ min4000（S355）</td>
</tr>
<tr>
<td>The max thickness of pre-bending</td>
<td>mm</td>
<td>T80<em>B3200</em>φ min4000（S355）</td>
</tr>
<tr>
<td>Up roll diameter</td>
<td>mm</td>
<td>Φ900</td>
</tr>
<tr>
<td>Down roll diameter</td>
<td>mm</td>
<td>Φ520</td>
</tr>
<tr>
<td>Support rollers</td>
<td>Set</td>
<td>1 Group</td>
</tr>
<tr>
<td>Distance between two down rolls</td>
<td>mm</td>
<td>1000</td>
</tr>
<tr>
<td>Drive speed</td>
<td>m/min</td>
<td>about 3.0</td>
</tr>
<tr>
<td>Main motor</td>
<td>kw</td>
<td>110</td>
</tr>
<tr>
<td>Moving motor</td>
<td>kw</td>
<td>45</td>
</tr>
<tr>
<td>Hydraulic motor</td>
<td>kw</td>
<td>22</td>
</tr>
</tbody>
</table>

3. The Main Structure:

This equipment should be composed of main structure, hydraulic system, electricity control system and cone device.

3-1. The main structure

The main structure is composed of upper roller, down rollers and level motion device support rolls device, tuning device, balance device, lubricate device, left and right work frame and bottom plate.
1) The upper roller

upper rolls device composed of main cylinder, upper bearing pedestal, upper rolls, double self-aligning bearing. Two cylinders provide the pressure for upper roll bending, main cylinder working pressure is 20 Mpa, max pressure of upper roll multiply 0.8 times to compensate for pre-bending. Upper roll two ends fit with double self-aligning bearing to reduce the friction and motor power. The material of upper roll is 42CrMo, heat treatment is HB220-280.

2) Down roll and level motion device.

The material of down roll is 45#, heat treatment is HB220-280. It composed of down of roll, down roll bearing pedestal, down roll input gear, down roll, glide bearing. Down bearing adopt SF-2 oil glide bearing. Level motion motor supply the power, through the strap drive to CWU worm wheel and pole speed reducer. Upper roll level motion drove by worm wheel and pole to finish bending in dissymmetry form.
3) Support device

Composed of sloping block device, support device, support rolls bearing pedestal, support lifting device, support rolls can adjust up and down. The adjustment depend on plate speciation. The material of support is 45#, heat treatment is HB220-250, it made up in helix sharp to protect the surface.
4) Main drive device

It composed of motor, hard gear speed reducer, output gear, main motor can tuning in two direction and provide bending pitch of strand.
5) Overturn device

Composed of ram, bearing, tuning cylinder

6) Balance device

Composed of balance compact, screw
3-2. Lubricate device

composed of lubricate pipe and lubricate pipe attachment, adopted GB7323-1994 NO 2 lithium grease.

3-3. Hydraulic system

Composed of Y series motor, gear pump, valves, oil tank, pipe and so on.

Max pressure is 20 Mpa, testing pressure is 24 Mpa, pressure adjusted by overflow valve, system working pressure 0-19 MPa, normal pressure is 15Mpa. The valves adopted from Taiwan.

3-4. Electricity system

Composed of electrical box, operation table, manual button. The power is 380V50HZ adopted PLC control system code with longevity easily operate. Whole bending process can read from the indicator setting on the control box.

3-5. Digital display system

This machine adopts two sets of digital instrument and displacement sensor formed a reliable digital display and control system.
4. the processes of rolling board (Rear bending)

   Step 1: Send the plate in and aligning it

   Step 2: The upper level position, moved to - X dropped to Y1 position. The reverse, make steel to forming position.

   Step 3: Press down the upper roll, and rotate the lower rolls clockwise.
Step 4: Stop the upper roll to Y2, and rotate the lower rolls clockwise continuously.;

Step 5: To stop, end plate under the roller on the board, Y3 stop at the end of the direct pressure preflex;

Step 6: The upper level of ascent Y2-α, move position+ X, press the same position Y2, next roller are turning;
Step 7: To stop, end plate under the roller, to stop Y3 position of board of direct compression preflex,

Step 8: The upper roller X = 0, moved to the next to position Y4, the positive & negative, bending compensation.

5. Inspection

JB/T8796-1998 Standard inspection/trial of machine at our factory before shipment is acceptable to us. Cost of sending your representative to your account.

6. Delivery time

120 days after receive the first payment.

7. Guarantee and warranty:

we undertake responsibility to repair/replace free of the parts during one year as from shipment. And offer serve for ever.
8. Payment terms:

30% T/T as advance, 70% T/T before the shipment.

9. Scope of supply:

9-1 roller bearing
9-2 hydraulic valves
9-3 composite bearing
9-4 working rolls
9-5 main motor
9-6 seals
9-7 main electrical parts
9-8 Main speed reducer gear
9-9 Hydraulic and moving motor

WAFANGDIAN
YOUSHEN Taiwan
WAFANGDIAN
NANGANG
HENGLI
Wall card Taiwan
SIEMENS
Jin TAIXING
SIEMENS

10. List of accessories to be provided by us:

<table>
<thead>
<tr>
<th>No</th>
<th>Name of goods</th>
<th>Quantity</th>
<th>Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Main machine</td>
<td>1</td>
<td>set</td>
</tr>
<tr>
<td>2</td>
<td>Operation Manual</td>
<td>1</td>
<td>piece</td>
</tr>
<tr>
<td>3</td>
<td>foot screw</td>
<td>1</td>
<td>set</td>
</tr>
<tr>
<td>4</td>
<td>Certificate of Quality</td>
<td>1</td>
<td>piece</td>
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<tr>
<td>5</td>
<td>Packing List</td>
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<td>piece</td>
</tr>
<tr>
<td>6</td>
<td>Hydraulic station</td>
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<td>set</td>
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<tr>
<td>7</td>
<td>Electrical control counter</td>
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<td>set</td>
</tr>
<tr>
<td>8</td>
<td>Oil Gun</td>
<td>1</td>
<td>chase</td>
</tr>
<tr>
<td>9</td>
<td>nozzle tip</td>
<td>1</td>
<td>set</td>
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