## LC-50 Specification

### Summary

<table>
<thead>
<tr>
<th>Lens</th>
<th>Size</th>
<th>Max Thickness</th>
<th>Control Method</th>
<th>Axis</th>
<th>Min Unit</th>
<th>Max Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Ø 2mm 〜 Ø 10mm</td>
<td>10mm</td>
<td>Numerical control</td>
<td>6</td>
<td>0.0001mm</td>
<td>0.0001mm</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Whetstone Diameter</th>
<th>Ø 160mm</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Stocker Loader Movement</th>
<th>X: 600mm</th>
<th>Y: 600mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Min Unit</td>
<td>0.01mm</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Power Supply</th>
<th>11kVA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Air Pressure</td>
<td>0.5Mpa</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Height</th>
<th>1650mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Floorspace</td>
<td>1380mm × 890mm</td>
</tr>
<tr>
<td>Weight</td>
<td>800kg</td>
</tr>
</tbody>
</table>

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* Please note that specifications may be changed without notice due to improvements in machines and so on.

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* The products in this catalog are controlled based on Japan’s “Foreign Exchange and Foreign Trade Law”. The export of the products are subject to an export license by the Japanese government.
Introducing the latest optical centering technology...

Cutting-edge technology that gives your company a competitive edge.

All automatic NC lens Centering Machines

LC-50

- Double the productivity with 2 NC control axes.
- Automatic transport processing from φ1mm lens.
- Work station and robotic system in one unit.
- User friendly and superior functionality for high efficiency.
A centering machine unlike any other.

- Low Z Lens
- High-speed Processing
- Precision stability
- Reduced cycle times

Faster, more productive centering... regardless of lens size.

Lens processing of Φ1 mm to Φ360 mm size is possible with LC-50, LC-120 and OMT-200NC. OD chamfering, I-cut, D-cut, or Variant-formed processing are possible with easy-to-program NC control. Also capable of processing a low centering coefficient lens. High precision and performance due to combined machining technique.
### Specification Condition

<table>
<thead>
<tr>
<th>Material</th>
<th>Work Spindle rpm</th>
<th>Knoop Hardness</th>
<th>Wheel rpm</th>
<th>Abrasion Degree</th>
<th>Cycle Time sec</th>
<th>Focal Distance f</th>
<th>High-pressure Clamp Mpa</th>
<th>Low-pressure Clamp Mpa</th>
<th>Eccentric less than 30&quot;</th>
<th>Holder Diameter(Upper) mm</th>
<th>Holder Diameter(Lower) mm</th>
<th>Finishing Diameter</th>
<th>Particle Size #</th>
<th>R1 Coolant</th>
<th>Centering Coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>S-BAH27</td>
<td></td>
<td>514</td>
<td>3600</td>
<td>160</td>
<td></td>
<td>-36.427</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>37.51 ± 0.005</td>
<td>400</td>
<td>CL5</td>
<td>0.257</td>
</tr>
</tbody>
</table>

### OD Chamfering / D-Cut

- D-cut processing is possible by polar-coordinates interpolation processing.
- Capable of processing D-cut and centering at the same time.
- The setting of D-cut dimensions only inputs a trim size desired.

### I-Cut / Four-Sided Processing

- Straight line synchronization of wheel and work spindle.
- Capable of making an I-Cut with a set parameter.
- Capable of processing a square.

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**Process**

- Schematic Chart
  - Material
  - Finish
  - [Cross section]

**Cross section**

- Wheel
- Glass Lens
- Clamp Holder
- OD Chamfering / D-Cut
- I-Cut / Four-Sided Processing

**Lens Centering**

- Before Processing
- D-Cut Straight Part
- Finish & D-Cut

**I-Cut Straight Part**

- Before Processing
- Clamp Holder
- Finish
**Variant Shape Processing**

- Wheel moves in two directions at the same time to process any type of angled surface.

**Variants Shape Glass Processing**

- OD Processing
- Slope Processing
- OD Processing Only
- Chamfering

**Low Z Processing**

- Low centering coefficient processing is possible due to rapid fluctuation in clamping pressure during pre-clamp rotation.

**Specification Condition**

- Material: S-BAH27
- Work Spindle rpm: 3600
- Knoop Hardness: 514
- Wheel rpm: 3600
- Abrasion Degree: 160
- Cycle Time sec: ___
- Focal Distance f: -36.427
- High-pressure Clamp Mpa: ___
- Refractive Index nd: 1.70154 ± 0.003
- Low-pressure Clamp Mpa: ___
- Eccentric: less than 30”
- Holder Diameter(Upper) mm: ___
- Holder Diameter(Lower) mm: ___
- Finishing Diameter: 37.51 ± 0.005
- Particle Size #400: ___
- R1: Coolant CL5
- R2: ___
- Centering Coefficient: 0.257

**Variant Shape Processing**

- Wheel moves in two directions at the same time to process any type of angled surface.

**Low Z Processing**

- Low centering coefficient processing is possible due to rapid fluctuation in clamping pressure during pre-clamp rotation.
Twin Axis for Twice the Capability!!

Double Productivity!!

Max Stock Space
735 × 570mm
(Flat, 2 Hands)

High-Precision
- Adoption of new clamp method
- Min size 0.0001mm available
- Automatic thickness measurement machine

Powerful NC control
- Faster setups
  - All offsets are saved for every job.
  - User friendly interface for easy programming.
  - On screen corrections.
  - Easy to operate because of large screen panel.

Improvement Of Work Efficiency
- There is no turning type loader
  - Conventional Swing loader
  - New Direct robot transport
- Unified control units

Stage A Stage B
Transport robot area

Stage A
Stage B

Faster setups
- All offsets are saved for every job.
- User friendly interface for easy programming.
- On screen corrections.
- Easy to operate because of large screen panel.

The pattern of loader operation
- 2 axes + 4 hands + 2 V clamp (OP)
  - Material: Flat Pallet
- 1 axis + 2 hands + V-clamp
  - Material: Cleaning Basket

Material:
- Flat Pallet
- Cleaning Basket

High-Precision Power

Powerful NC control

Min size 0.0001mm available
Automatic thickness measurement machine

The pattern of loader operation
- Swing loader
- Direct robot transport

Max Stock Space
735 × 570mm
(Flat, 2 Hands)
**LC-50 Specification**

<table>
<thead>
<tr>
<th>Lens</th>
<th>Size</th>
<th>Ø 2mm ∼ Ø 55mm (× Ø 30mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Max Thickness</td>
<td>10mm</td>
<td></td>
</tr>
<tr>
<td>Control</td>
<td>Method</td>
<td>Numerical control</td>
</tr>
<tr>
<td></td>
<td>Min Unit</td>
<td>0.0001mm</td>
</tr>
<tr>
<td>Wheelstone</td>
<td>Diameter</td>
<td>Ø 160mm</td>
</tr>
<tr>
<td>Stecker</td>
<td>Loader Movement</td>
<td>X: 600mm  Y: 600mm</td>
</tr>
<tr>
<td></td>
<td>Min Unit</td>
<td>0.01mm</td>
</tr>
<tr>
<td>Power Supply</td>
<td>Air Pressure</td>
<td>0.5 MPa</td>
</tr>
<tr>
<td>Machine</td>
<td>Weight</td>
<td>1350mm</td>
</tr>
<tr>
<td>Dimensions</td>
<td>Floorspace</td>
<td>1350mm × 850mm</td>
</tr>
<tr>
<td></td>
<td>Weight</td>
<td>850kg</td>
</tr>
</tbody>
</table>

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**LC-50**

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