Desktop Robot
JR3000 SERIES
Adjustment Package for Dispensing
The same software for all your settings!

We combined the camera, laser displacement sensor, and needle adjuster for precision dispensing on fine workpieces with the highly rigid, high precision JR3000 Series to create a comprehensive machine vision system package. What's more, our dedicated software, "JR C-Points II" is even more user-friendly. Now anyone can do perform precision robot teaching using the camera images.

Easy settings from start to finish with our specialized software

Adjustment functions for high precision dispensing

1. **Camera Adjustment**
   The robot dispenses while making adjustments on displaced workpieces.

2. **Continuous Height Adjustment**
   The laser displacement sensor continuously measures the workpiece height.

3. **Needle Adjustment**
   If the needle tip position is displaced after nozzle replacement, the robot automatically detects the current needle position and makes adjustments.
**- Janome Dynamic Adjustment Package Dispensing Robot -**

**Dedicated interface for dispensing with a camera "JR C-Points II"**

The "Programming Area", "Camera Imaging Area", "Basic Operations Area" and "Robot Operations Area" are all integrated on one screen for a clear, convenient interface.

**Programming Area**

Displays programming data point by point. Choose and edit the point values directly.

**Basic Operation Icons**

Program just by choosing the icons you want!

**Camera Imaging Area**

Use magnified camera images to designate precise positions. With "JR C-Points II" making camera settings is easy.

Click on the camera image, and the robot recenters on the position you clicked and moves accordingly.

**Robot Operations Area**

Make JOG movements while watching the camera image.

**All this high quality in one package**

**Robot**

A highly rigid desktop robot designed for precision dispensing. Do jobs faster and with greater precision, with dependably high repeatability over the long term.

**Camera**

In-Sight Micro

All the functions you need for an industrial machine vision system packed into an ultra-compact casing for top class performance.

Resolution (Pixels): 640 x 480

**Laser Displacement Sensor**

LK-G3000A

"Stable Measurement" achieved through high-speed sampling.

Measuring Range: 30±5mm

Spot Diameter: 0.5µm

Repeatability: ±0.05mm

Needle Displacement Margin: ±5mm

Compatible Needles: Φ0.35~2.50mm (PR-1)

**Needle Adjuster**

3 Axes Type

Repeatability: ±0.15mm

Needle Displacement Margin: ±5mm

Compatible Needles: Φ0.20~2.50mm

4 Axes Type

Repeatability: ±0.15mm

Needle Displacement Margin: ±5mm

Compatible Needles: Φ0.20~1.00mm

**<System Components>**

- Syringe Attachment Point
- PoE Hub
- Laser Displacement Sensor Controller
- Light Controller
- Camera
- Laser Displacement Sensor
- Light
- Needle Adjuster
### Dispensing with Camera Specifications

<table>
<thead>
<tr>
<th>Item</th>
<th>Model</th>
<th>JR3303</th>
<th>JR3403</th>
<th>JR3304</th>
<th>JR3404</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Axes</td>
<td>3 Axes (Synchronous Control)</td>
<td>4 Axes (Synchronous Control)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Operating Range</td>
<td>3 Axes</td>
<td>100mm</td>
<td>150mm</td>
<td>100mm</td>
<td>150mm</td>
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<tr>
<td>Maximum Portable Load</td>
<td>1kg</td>
<td>5kg</td>
<td>±360°</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Maximum Speed (PTP Drive)</td>
<td>3 Axes</td>
<td>900mm/sec</td>
<td>800mm/sec</td>
<td>800mm/sec</td>
<td>800mm/sec</td>
</tr>
<tr>
<td>Maximum Speed (CP Drive)</td>
<td>3, 4 Axes Combined</td>
<td>850mm/sec</td>
<td>850mm/sec</td>
<td>850mm/sec</td>
<td>850mm/sec</td>
</tr>
<tr>
<td>Acceptable Moment of Inertia</td>
<td>90kg·cm²</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Repeatability (Robot)</td>
<td>3 Axes</td>
<td>±0.007mm</td>
<td>±0.007mm</td>
<td>±0.007mm</td>
<td>±0.007mm</td>
</tr>
<tr>
<td>Screen Display Options</td>
<td>Measurement Unit</td>
<td>mm, μm</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Languages</td>
<td>English, Japanese, Simplified Chinese, Traditional Chinese</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Program Capacity</td>
<td>999 Programs</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Database Capacity</td>
<td>Up to 32,000 points</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Simple PLC Functions</td>
<td>Up to 100 programs, with up to 1,000 steps/program</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>External Input/Output</td>
<td>I/O-Sys.&quot;</td>
<td>16 Inputs / 16 Outputs</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>I/O-1*&quot;</td>
<td>8 Inputs / 8 Outputs (including 4 relay outputs)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>I/O-M</td>
<td>Controls up to 2 external motors (Optional)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>I/O-0&quot;</td>
<td>Interface connector for an-area sensors etc. (Optional)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Interface</td>
<td>CC-Link / DeviceNet / PROFINET / CANopen / EtherCAT/IP (Optional)</td>
<td></td>
<td></td>
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</tr>
<tr>
<td></td>
<td>COM</td>
<td>RS232C, 3ch (for external devices, COM commands)</td>
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<tr>
<td></td>
<td>MEMORY</td>
<td>USB memory connector (save and readout teaching and customizing data, back up system software)</td>
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<tr>
<td></td>
<td>LAN</td>
<td>For Field Industrial Hub connection</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Camera</td>
<td>In-Sight Micro Series SM1100-11 (manufactured by COGNEX)</td>
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<td></td>
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<tr>
<td>CCTV Lens</td>
<td>SV-1614V (manufactured by VS Technology)</td>
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<tr>
<td>Close-up Ring</td>
<td>SV-EXR (7-piece Close-up Ring Set: 0.5mm, 1mm, 2mm, 3mm, 5mm, 10mm, 20mm, 40mm) (manufactured by VS Technology)</td>
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<tr>
<td>Light</td>
<td>LFV3-355W (White) (LFV3-355RD) (Red) also available, Controller: PD2-3024 (manufactured by CCSI)</td>
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<tr>
<td>Sensor</td>
<td>LK-G3000VA (small spot type), Controller: LK-G3000VA (All-in-one) (manufactured by KOBENGA)</td>
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<tr>
<td>CNC</td>
<td>OGLW2-40T-2PS6</td>
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<tr>
<td>NC Ideal Hub</td>
<td>CPS-24V-PSE (Manufactured by COGNEX)</td>
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<tr>
<td>Power Source</td>
<td>AC110<del>120V/AC220</del>240V ±10% (single phase)</td>
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<td></td>
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<tr>
<td>Power Consumption</td>
<td>280W</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Operating Environment</td>
<td>Temperature</td>
<td>0~40°C</td>
<td></td>
<td></td>
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</tr>
<tr>
<td></td>
<td>Relative Humidity</td>
<td>35~85% (non-condensing)</td>
<td></td>
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<tr>
<td></td>
<td>Elevation</td>
<td>up to 1,000m</td>
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</tr>
</tbody>
</table>

**Notes**

1. For Dispensing with Camera Specifications, all robots are double column types.
2. Maximum speed can vary depending upon conditions.
3. Repeatability was measured at a constant temperature and does not represent a guarantee of absolute precision.
4. Points may be added or deleted as additional function data settings (point job data) based on customer data are added, due to the shared data storage area.
5. Values are for robot with peripheral devices attached.
6. We ask that customers please prepare the PLC and connecting cable and dispense at their end.

**Standard Accessories**

- Power Cord: Switchbox (also available with optional switch or mode changing switch)

**Options**

- Teaching Pendant (for use with the robot) - I/O-1 Cable - I/O-MT Cable

- Switchbox
  - Standard Type
  - With Mode Changing Switch (optional)
  - With Optional Switch (optional)

*Specifications may change without notice to improve product quality.*

*If you have any questions, please contact us at the telephone number listed below, or visit our website.*

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