HIGH-PERFORMANCE PALLETIZING ROBOTS

Designed specifically for palletizing applications, the Palletizer Series features five unique robots with payload capacity from 80 kg to 500 kg to suit most needs. With industry leading work range and reliability, Kawasaki's high-speed palletizing robots help companies improve production line efficiency.

**RD80N**

- **Degrees of Freedom**: 5 axes
- **Payload**: 80 kg
- **Horizontal Reach**: 2,100 mm
- **Vertical Reach**: 3,311 mm
- **Repeatability**: ±0.07 mm

**Applications**
- Palletizing

**HIGH-PERFORMANCE**

In today's highly competitive marketplace, meeting the demand for just-in-time deliveries, flexible packaging, the freshest products, and the highest production line efficiencies are all key to a company's success. Kawasaki Robotics helps support these success factors with robots designed specifically for palletizing applications. Robots model number RD80N, ZDE130S, ZDE250S, MDE400N and MDE500N offer a wide range of payload options (80 kg to 500 kg) along with industry leading reach, speed and quality to deliver high-performance automation technology for most any palletizing application.

**HIGH-SPEED OPERATION**

The Kawasaki Palletizing Robots are among the fastest and most reliable machines in the industry. The RD80N Robot is capable of 900 cycles per hour with an 80 kg payload and the ZDE130S Robot is capable of 1,800 cycles per hour with a 60 kg payload.

**COMPACT APPLICATIONS**

The Kawasaki RD80N is designed specifically for applications where a compact, high-speed, palletizing robot is required. Despite its slim space-saving design, the RD80N can manipulate loads up to 80 kg and create pallet stacks over seven feet tall. The unique 5-axis design can be floor or ceiling mounted and is ideal for palletizing, depalletizing, material handling, and case packing applications.

**LARGE WORK ENVELOPE WITH HIGH PAYLOAD**

The ZDE130S and ZDE250S robots can manipulate products vertically up to 3,075 mm, while the MDE400N and MDE500N robots have up to 3,521 mm of vertical range. The high vertical reach capability is ideal for tall pallet creation and multi-lane applications where the robot is required to reach over incoming and outgoing production lines. Kawasaki Palletizing Robots have a horizontal reach of up to 3,255 mm, which is the longest reach in their class. This extra long reach allows for one Kawasaki robot to be used in applications where five or more outgoing pallet lanes are required. This unique capability contributes to the flexibility and efficiency of the Kawasaki Palletizing Robot design.

The Z-Series models are ideal for typical medium to heavy palletizing loads, while the high capacity M-Series robots can handle up to 500 kg. The high payload capabilities of these robots allow for multiple product picks and complete pallet layer handling, resulting in fewer cycles per completed pallet.
**RD80N SPECIFICATIONS**

<table>
<thead>
<tr>
<th>Type</th>
<th>Articulated</th>
</tr>
</thead>
<tbody>
<tr>
<td>Degrees of Freedom</td>
<td>5 axes</td>
</tr>
<tr>
<td>Payload</td>
<td>80 kg</td>
</tr>
<tr>
<td>Horizontal Reach</td>
<td>2,100 mm</td>
</tr>
<tr>
<td>Vertical Reach</td>
<td>3,311 mm</td>
</tr>
<tr>
<td>Repeatability</td>
<td>±0.07 mm</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Axis</th>
<th>Motion Range</th>
<th>Maximum Speed</th>
</tr>
</thead>
<tbody>
<tr>
<td>JT1</td>
<td>±180°</td>
<td>180°/s</td>
</tr>
<tr>
<td>JT2</td>
<td>+140° ~ -105°</td>
<td>180°/s</td>
</tr>
<tr>
<td>JT3</td>
<td>+40° ~ -205°</td>
<td>175°/s</td>
</tr>
<tr>
<td>JT4</td>
<td>±360°</td>
<td>360°/s</td>
</tr>
<tr>
<td>JT5</td>
<td>±10°</td>
<td>—</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Axis</th>
<th>Maximum Torque</th>
<th>Moment of Inertia</th>
</tr>
</thead>
<tbody>
<tr>
<td>JT4</td>
<td>—</td>
<td>13.7 kg·m²</td>
</tr>
</tbody>
</table>

- Restrictions are applied to the center of gravity. See the Installation and Connection Manual. If more detailed data is required for your application, please contact Kawasaki.

**Maximum Palletizing Capacity**
- Approx. 900 cycles/hour at 80 kg payload
- Based on a robot stroke of 400 mm upward-downward and 2,000 mm in the right-left direction.

- Motor(s): Brushless AC Servomotor
- Brakes: All axes
- Hard Stop(s): Adjustable mechanical stopper JT1/JT2/JT3
- Mass: 540 kg (excluding Options)
- Body Color: Kawasaki Standard
- Installation: Floor, ceiling

**Environmental Conditions**
- Temperature: 0 ~ 45°C
- Humidity: 35 ~ 85% (no dew, nor frost allowed)
- Vibration: Less than 0.5 G

**Protection Classification**
- Wrist: IP67
- Base: IP65
- *Equivalent

**Built-in Harness**
- Sensor harness 12 inputs, 24VDC, GND

**Internal Wiring**
- 14 wires, inside robot arm

**Built-in Utilities**
- Pneumatic piping (ø10 x 2 lines)

**Options**
- IP67 entire arm
- Linear track options
- Riser (300/600 mm)
- Base plate
- Double/single solenoid valves (4 units max.)
- Air cleaning equipment (filter, regulator, mist separator)

**Controller**
- E32 (See E Controller data sheet for specifications)

Note: Detailed drawings are available upon request.

Simple & friendly

Kawasaki Robotics (USA), Inc.
**United States**
28140 Lakeview Drive
Wixom, Michigan 48393
Phone (248) 446-4100
Email sales@kri-us.com

**Canada**
Phone (905) 304-7784

**Mexico**
Phone (52) 33-3110-1895

www.kawasakirobotics.com