GSK CNC EQUIPMENT CO., LTD. (GSK) together with PT NAGAMEGA INDONESIA, is the Numerical Control industrial base of South China, provides to the user with complete products, (including CNC system, Servo Motor and Servo Drive), Industry Robot and Integrated application overall troubleshooting, Full-electric accuracy injection molding machine and CNC machines etc.

We has been studied the robots with absolute independent intellectual property right based upon the industry control technology study and manufacture experience for more than 2 decades, such as the essential function components, Robot controller, Servo motor and servo drive. At present, Our Industry Robot has been popularized 6-serial-robot, for example, transportation, welding, polishing, painting, stacking and paralleling, up to 20 kinds of the product types.

As the undertake enterprise of the "Regional Intelligent Manufacture Equipment Developing Product", Our industry robot takes on the consistent high quality and technology of the CNC series product, which can be provided the excellent performance Robot according to the user’s requirements, as well as our desired design and product of the assembly fixture, logistic conveyor belt of robot automation application.
### RB Series

**Application field:** It is widely used in burnishing, polishing, machine charging/blanking and punching automation production line etc.

<table>
<thead>
<tr>
<th>Type</th>
<th>DOF (Degree of Freedom)</th>
<th>Drive Method</th>
<th>Effective Loading (kg)</th>
<th>Repeated Positioning Accuracy (mm)</th>
<th>Motion Range(°)</th>
<th>Max. Speed(°/s)</th>
<th>Permission Top Torque(n.m)</th>
<th>Motion Radius (mm)</th>
<th>Machine Weight (kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>RB03</td>
<td>6</td>
<td>AC Servo drive</td>
<td>3</td>
<td>± 0.05</td>
<td>± 170</td>
<td>+150~80</td>
<td>± 170</td>
<td>± 80</td>
<td>±150+270</td>
</tr>
<tr>
<td>RB08</td>
<td>6</td>
<td>AC Servo drive</td>
<td>8</td>
<td>± 0.05</td>
<td>± 170</td>
<td>+120~85</td>
<td>± 170</td>
<td>±120</td>
<td>±150+270</td>
</tr>
<tr>
<td>RB13</td>
<td>6</td>
<td>AC Servo drive</td>
<td>13</td>
<td>± 0.05</td>
<td>± 170</td>
<td>+150~95</td>
<td>± 170</td>
<td>±150</td>
<td>±150+270</td>
</tr>
<tr>
<td>RB06L</td>
<td>6</td>
<td>AC Servo drive</td>
<td>6</td>
<td>± 0.05</td>
<td>± 170</td>
<td>+133~95</td>
<td>± 170</td>
<td>±133</td>
<td>±150+270</td>
</tr>
<tr>
<td>RB15L</td>
<td>6</td>
<td>AC Servo drive</td>
<td>15</td>
<td>± 0.05</td>
<td>± 170</td>
<td>+133~95</td>
<td>± 170</td>
<td>±133</td>
<td>±150+270</td>
</tr>
<tr>
<td>RB20</td>
<td>6</td>
<td>AC Servo drive</td>
<td>20</td>
<td>± 0.05</td>
<td>± 170</td>
<td>+133~95</td>
<td>± 170</td>
<td>±133</td>
<td>±150+270</td>
</tr>
<tr>
<td>RB50</td>
<td>6</td>
<td>AC Servo drive</td>
<td>50</td>
<td>± 0.05</td>
<td>± 178</td>
<td>+130~90</td>
<td>± 133</td>
<td>±133</td>
<td>±150+270</td>
</tr>
<tr>
<td>RB165</td>
<td>6</td>
<td>AC Servo drive</td>
<td>165</td>
<td>± 0.30</td>
<td>± 180</td>
<td>+150~90</td>
<td>± 133</td>
<td>±133</td>
<td>±150+270</td>
</tr>
</tbody>
</table>

**Remark:** Avoid to contact with the inflammable, explosive and corrosive gas and liquid; do not splash the water, oil and dust; depart from the appliance noisy resource (plasma)
**RH Series**

Application area: It can be extensively used in the hardware welding areas, such as the car and its accessories, motorcycle and its accessories, the agricultural machinery and the engineering mechanism etc.

<table>
<thead>
<tr>
<th>Type</th>
<th>DOF (Degree of Freedom)</th>
<th>Drive Method</th>
<th>Effective Loading (kg)</th>
<th>Repeated Positioning Accuracy (mm)</th>
<th>Motion Range(°)</th>
<th>Max. Speed(°/s)</th>
<th>Permission Top Torque(n.m)</th>
<th>Motion Radius (mm)</th>
<th>Machine Weight (kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>RH06</td>
<td>6</td>
<td>AC Servo drive</td>
<td>6</td>
<td>±0.05</td>
<td>J1 170 J2</td>
<td>J3 180 J4</td>
<td>J5 135 J6</td>
<td>J1 130 J2 130 J3 270 J4 170</td>
<td>J5 455 J6 12 10 6</td>
</tr>
</tbody>
</table>

Remark: Avoid to contact with the inflammable, explosive and corrosive gas and liquid; do not splash the water, oil and dust; depart from the appliance noisy resource (plasma)

GSK Series Welding Robot can be matched with imported welding machines, such as OTC, Panasonic, LINCOLN, EWM etc., as well the domestic machines, for example, Shandong Aotai Electric Co., Ltd., Guangzhou Youlian Electromechanical Equipment Co., Ltd., Chengdu morrow Welding Industry Development Co., Ltd., Beijing unipow welding Co., Ltd. etc.
RMD Series

Application Field: It is widely used in production line transportation, disassembly and placement of the drinking, dairy industry, food, petrifaction, medicine, rice and feeding etc.

<table>
<thead>
<tr>
<th>Type</th>
<th>DOF (Degree of Freedom)</th>
<th>Drive Method</th>
<th>Effective Loading (kg)</th>
<th>Repeated Positioning Accuracy (mm)</th>
<th>Motion Range(°)</th>
<th>Permission Top Torque(n.m)</th>
<th>Motion Capacity (circle/hour) (note)</th>
<th>Motion Radius (mm)</th>
<th>Machine Weight (kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>RMD120</td>
<td>4</td>
<td>AC Servo drive</td>
<td>120</td>
<td>± 0.1</td>
<td>± 165</td>
<td>1500</td>
<td>± 360</td>
<td>324</td>
<td>1000 (note)</td>
</tr>
<tr>
<td>RMD200</td>
<td>4</td>
<td>AC Servo drive</td>
<td>200</td>
<td>± 0.1</td>
<td>± 165</td>
<td>1500</td>
<td>± 360</td>
<td>403</td>
<td>1000 (note)</td>
</tr>
<tr>
<td>RMD400</td>
<td>4</td>
<td>AC Servo drive</td>
<td>400</td>
<td>± 0.1</td>
<td>± 165</td>
<td>1600</td>
<td>± 360</td>
<td>640</td>
<td>1000 (note)</td>
</tr>
</tbody>
</table>

Note: The Max. capacity and the actual stacking capacity developed from factory are determined by the on-site/spot condition (distance, product weight and finger/hand method).

Remark: Avoid to contact with the inflammable, explosive and corrosive gas and liquid; do not splash the water, oil and dust; depart from the appliance noisy resource (plasma).
RJ Series

Application field: It widely used in small size CNC Turn, CNC Mill automatic loading and unloading of parts. as well as simple pick and place for automatic assembly process

<table>
<thead>
<tr>
<th>Type</th>
<th>DOF (Degree of Freedom)</th>
<th>Drive Method</th>
<th>Effective Loading (kg)</th>
<th>Repeated Positioning Accuracy (mm)</th>
<th>Motion Range(°)</th>
<th>Max. Speed(°/s)</th>
<th>Permission Top Torque(n.m)</th>
<th>Motion Radius (mm)</th>
<th>Machine Weight (kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>RJ05</td>
<td>3</td>
<td>AC Servo drive</td>
<td>5</td>
<td>± 0.1</td>
<td>±180 ~ +120</td>
<td>220</td>
<td>133 180</td>
<td>/</td>
<td>1100</td>
</tr>
<tr>
<td>RJ10</td>
<td>3</td>
<td>AC Servo drive</td>
<td>10</td>
<td>± 0.1</td>
<td>±170 ~ +120</td>
<td>130</td>
<td>130 130</td>
<td>/</td>
<td>1320</td>
</tr>
<tr>
<td>RJ20</td>
<td>3</td>
<td>AC Servo drive</td>
<td>20</td>
<td>± 0.1</td>
<td>±170 ~ +132</td>
<td>163</td>
<td>111 125</td>
<td>/</td>
<td>1470</td>
</tr>
</tbody>
</table>

Remark: Avoid to contact with the inflammable, explosive and corrosive gas and liquid; do not splash the water, oil and dust; depart from the appliance noisy resource (plasma)
RP/PT Series

Application field: It widely used in coating of fluid sealant for the car lamp, water-proof curtain of the car door, under frame and the windscreen, also, in the surface painting of the metal, plastic, ceramic and wood for furniture, appliance, car and accessory, and motorcycle etc.

<table>
<thead>
<tr>
<th>Type</th>
<th>DOF (Degree of Freedom)</th>
<th>Drive Method</th>
<th>Effective Loading (kg)</th>
<th>Repeated Positioning Accuracy (mm)</th>
<th>Motion Range(°)</th>
<th>Max. Speed(°/s)</th>
<th>Permission Top Torque(n.m)</th>
<th>Motion Radius (mm)</th>
<th>Machine Weight (kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PT5-1000</td>
<td>4</td>
<td>AC Servo drive</td>
<td>5</td>
<td>± 0.15</td>
<td>± 100 ± 112 ± 180 / /</td>
<td>15.2 (mm/s)</td>
<td>120 120 240 / / / / / /</td>
<td>875</td>
<td>40 (不包含立柱和行走轮)</td>
</tr>
<tr>
<td>RP05</td>
<td>6</td>
<td>AC Servo drive</td>
<td>5</td>
<td>± 0.20</td>
<td>± 180 +150〜-90 ± 200 ± 115 ± 400</td>
<td>106 106 100 443 526 526</td>
<td>1.91 1.91 1.91 1.91 1.91</td>
<td>2065</td>
<td>299</td>
</tr>
<tr>
<td>RP15</td>
<td>6</td>
<td>AC Servo drive</td>
<td>15</td>
<td>/</td>
<td>± 160 +110〜-50 ± 70〜-170 ± 360 ± 360 ± 360</td>
<td>151 121 152.5 223 245 292</td>
<td>/ 90 15</td>
<td>/</td>
<td></td>
</tr>
</tbody>
</table>

Remark: Avoid to contact with the inflammable, explosive and corrosive gas and liquid; do not splash the water, oil and dust; depart from the appliance noisy resource (plasma)
Application field: It widely used in electric, light industry, food and medicine etc., which can be carried out the high-speed holding/unholding and sorting packing operations.

<table>
<thead>
<tr>
<th>Type</th>
<th>DOF (Degree of Freedom)</th>
<th>Effective Loading (kg)</th>
<th>Max Loading (kg)</th>
<th>Repeated Positioning Accuracy (mm)</th>
<th>Motion Range (°)</th>
<th>Revolving Angle (°/s)</th>
<th>Max. Speed (m/s)</th>
<th>Max. Speed (no-load (m/s))</th>
<th>Typical Beat Time(s)</th>
<th>Integrative Vacuum Resource (kg)</th>
<th>Integrative Vacuum Resource (kg)</th>
<th>Motion Radius (mm)</th>
<th>Machine Weight (kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>C3-1100</td>
<td>3-axis (It can be extended the 4th DOF)</td>
<td>1</td>
<td>3</td>
<td>± 0.1</td>
<td>φ1100x250</td>
<td>-</td>
<td>120</td>
<td>7</td>
<td>0.33(0.1kg)/0.39(1kg)</td>
<td>Up to 7bar/Max. vaccum-0.75bar</td>
<td>Up to 7bar/Max. vaccum-0.75bar</td>
<td>1100</td>
<td>120</td>
</tr>
<tr>
<td>C4-800</td>
<td>3-axis (It can be extended the 4th DOF)</td>
<td>1</td>
<td>3</td>
<td>± 0.1</td>
<td>φ800x250</td>
<td>± 180</td>
<td>100</td>
<td>7</td>
<td>0.35(0.1kg)/0.45(1kg)</td>
<td>Up to 7bar/Max. vaccum-0.75bar</td>
<td>Up to 7bar/Max. vaccum-0.75bar</td>
<td>1000</td>
<td>90</td>
</tr>
<tr>
<td>C4-1000</td>
<td>4-axis</td>
<td>1</td>
<td>3</td>
<td>± 0.1</td>
<td>φ1000x250</td>
<td>± 180</td>
<td>120</td>
<td>10</td>
<td>0.33(0.1kg)/0.38(1kg)</td>
<td>Up to 7bar/Max. vaccum-0.75bar</td>
<td>Up to 7bar/Max. vaccum-0.75bar</td>
<td>800</td>
<td>144</td>
</tr>
</tbody>
</table>

Remark: Avoid to contact with the inflammable, explosive and corrosive gas and liquid; do not splash the water, oil and dust; depart from the appliance noisy resource (plasma)
## Horizontal 4 Axis

Application area: It widely use in Semiconductor industries, Plastic Molding, Bio Medical industries, Food and Beverage industries, main application for Pick and Place, Assembly, Dispensing process, Inspection process etc.

<table>
<thead>
<tr>
<th>Type</th>
<th>Standard Cycle Time (@ 2 kg)</th>
<th>Effective Loading (kg)</th>
<th>Repeated Positioning Accuracy (mm)</th>
<th>Motion Range(°) / Arm Length(mm)</th>
<th>Max. Speed(°/s)</th>
<th>Motion Radius (mm)</th>
<th>Machine Weight (kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>RSP05-600-150</td>
<td>0.68 sec</td>
<td>5</td>
<td>± 0.05</td>
<td>X: ± 140 / 350mm, Y: 140 / 250mm, Z: ± 0 / 150mm, W: ± 360 / 0mm</td>
<td>4.5 m/s, 4.5 m/s, 1.6 m/s</td>
<td>700°/s</td>
<td>600</td>
</tr>
</tbody>
</table>

Remark: Avoid to contact with the inflammable, explosive and corrosive gas and liquid; do not splash the water, oil and dust; depart from the appliance noisy resource (plasma)
**Additional Equipment Introduction**

**Positioner**

- **Single-axis Positioner**
  - Characteristics: It adopts the decelerator and servo motor control studied by GSK, rotates to the optimum position of each kind welding-seam of the welding workpiece, to avoid the vertical welding, overhead welding; further, it enhances the welding quality and product efficiency. The robot control system not only can be controlled the body motion, but also automatically control issuing the welding beginning command for the positioned, as well the automation control and welding parameter (Voltage, Current) debugging. It also can be inspected whether the start-arc is performed or not. The single-axis positioned can be used in the automation charging/unloading, too.

<table>
<thead>
<tr>
<th>Type</th>
<th>Drive method</th>
<th>Max. loading (kg)</th>
<th>Repeated Positioning Accuracy (mm)</th>
<th>Motion Range (°)</th>
<th>Rated speed (°/s)</th>
<th>Rated torque (N.m)</th>
<th>Machine (kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>HBS150-1</td>
<td>AC servo drive</td>
<td>150 ± 0.15</td>
<td>±135 ±370</td>
<td>125</td>
<td>124</td>
<td>330</td>
<td>144</td>
</tr>
<tr>
<td>HBD250-1</td>
<td>AC servo drive</td>
<td>250 ± 0.10</td>
<td>/ ±370</td>
<td>/</td>
<td>124</td>
<td>/</td>
<td>244</td>
</tr>
<tr>
<td>HBD500-1</td>
<td>AC servo drive</td>
<td>500 ± 0.10</td>
<td>/ ±370</td>
<td>/</td>
<td>90</td>
<td>/</td>
<td>400</td>
</tr>
</tbody>
</table>

**Positioner Drive method**

- **Max. loading (kg)**
- **Motion Range (°)**
- **Rated speed (°/s)**
- **Rated torque (N.m)**
- **Machine (kg)**

**Movement Guide**

- **Type 1**
  - Suitable Robot: RB Series multi-joint robot
  - Max. Operation Speed (m/s): 1.5 (It is related with motor)
  - Repeated positioning accuracy (mm): up to ±0.05
  - Max. loading (kg): 800
  - Installation Condition: Ambient temperature: 0~45°
  - Ambient Humidity: 20~80% RH (no condensation)

- **Type 2**
  - Suitable Robot: Hanging installation method
  - Max. loading (kg): 400

**Movement Guide**

- **Type 1**
  - Suitable Robot: Hanging installation method

- **Type 2**
  - Suitable Robot: Hanging installation method

**GSK CNC EQUIPMENT CO., LTD.**

**PT. NAGAMEGA INDONESIA**
SJTR Series Servo Motor

Characteristics:
- It adopts the optimum electromagnetic design; low noise electromagnetic, stable operation and high efficiency;
- It adopts high performance rare-earth permanent magnetism material; perfect low-speed character and strong overloading capacity (3 times);
- It adopts 17-bit absolute high-speed and high accuracy photoelectric encoder, which can be regarded as the high-accuracy control matching with the high-performance drive unit;
- It adopts the imported high-accuracy bear and rotor high-precision dynamic technologies to ensure that the motor is stable and reliable, less vibration and low noise when it operates within the high speed range;
- The motor can be reliably used under the 15°~40° ambient temperature and the dust oil-mist;
- It owns high torque inertial ratio and strong rapid response capacity.

Partial Parameter:

<table>
<thead>
<tr>
<th>Item</th>
<th>Type</th>
<th>60SJTR-MZ003E</th>
<th>60SJTR-MZ005E</th>
<th>80SJTR-MZ006E</th>
<th>80SJTR-MZ010E</th>
<th>80SJTR-MZ013E</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rated Power (kw)</td>
<td></td>
<td>0.1</td>
<td>0.16</td>
<td>0.2</td>
<td>0.3</td>
<td>0.4</td>
</tr>
<tr>
<td>Rated Current (a)</td>
<td></td>
<td>1.2</td>
<td>1.65</td>
<td>2.9</td>
<td>3.1</td>
<td>3.3</td>
</tr>
<tr>
<td>Zero Speed Torque (n.m)</td>
<td></td>
<td>0.318</td>
<td>0.5</td>
<td>0.637</td>
<td>1.0</td>
<td>1.27</td>
</tr>
<tr>
<td>Rated Torque (n.m)</td>
<td></td>
<td>0.318</td>
<td>0.5</td>
<td>0.637</td>
<td>1.0</td>
<td>1.27</td>
</tr>
<tr>
<td>Max. Torque (n.m)</td>
<td></td>
<td>0.955</td>
<td>1.5</td>
<td>1.91</td>
<td>3.0</td>
<td>3.81</td>
</tr>
<tr>
<td>Rated Speed (r/min)</td>
<td></td>
<td>3000</td>
<td>3000</td>
<td>3000</td>
<td>3000</td>
<td>3000</td>
</tr>
<tr>
<td>Max. Speed (r/min)</td>
<td></td>
<td>5000</td>
<td>5000</td>
<td>6000</td>
<td>6000</td>
<td>6000</td>
</tr>
<tr>
<td>Rated Speed (kg.r)</td>
<td></td>
<td>0.05×10⁻⁴</td>
<td>0.07×10⁻⁴</td>
<td>2.71×10⁻⁴</td>
<td>3.36×10⁻⁴</td>
<td>3.88×10⁻⁴</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Item</th>
<th>Type</th>
<th>150SJTRG-MZ040C</th>
<th>150SJTRG-MZ060C</th>
<th>150SJTRG-MZ080C</th>
<th>150SJTRG-MZ100C</th>
<th>150SJTRG-MZ120C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rated Power (kw)</td>
<td></td>
<td>0.84</td>
<td>1.26</td>
<td>1.68</td>
<td>2.1</td>
<td>2.5</td>
</tr>
<tr>
<td>Rated Current (a)</td>
<td></td>
<td>5.5</td>
<td>8.6</td>
<td>11.2</td>
<td>14.3</td>
<td>14.5</td>
</tr>
<tr>
<td>Zero Speed Torque (n.m)</td>
<td></td>
<td>4</td>
<td>6</td>
<td>8</td>
<td>10</td>
<td>12</td>
</tr>
<tr>
<td>Rated Torque (n.m)</td>
<td></td>
<td>4</td>
<td>6</td>
<td>8</td>
<td>10</td>
<td>12</td>
</tr>
<tr>
<td>Max. Torque (n.m)</td>
<td></td>
<td>12</td>
<td>18</td>
<td>24</td>
<td>30</td>
<td>33.8</td>
</tr>
<tr>
<td>Max. Speed (r/min)</td>
<td></td>
<td>3500</td>
<td>3500</td>
<td>3500</td>
<td>3500</td>
<td>2800</td>
</tr>
<tr>
<td>Rated Speed (kg.r)</td>
<td></td>
<td>1.3×10⁻⁴</td>
<td>1.9×10⁻⁴</td>
<td>2.9×10⁻⁴</td>
<td>3.4×10⁻⁴</td>
<td>3.9×10⁻⁴</td>
</tr>
</tbody>
</table>
It composes of: SJTR Series Servo Motor, GE Series AC Synchronous Servo Drive Unit, Hypocycloid Cross Roller Decelerator.

**GE Series AC Servo Synchronous Servo Drive Unit**

GE Series AC Synchronous Servo Drive Unit contains GE2000 (220V power) and GE3000 (380V power) series which is the updated studied AC Servo Drive unit with industry Ethernet bus communication interface; it owns convenient servo parameter debugging, simple interface, high stability and wide compatibility, matches with the incremental encoder and multiple 17-bit absolute encoder, carries out the open-loop/closed-loop control and meets the requirements of the robot, CNC machine and automation equipments etc.

- It adopts the industry Ethernet bus communication transmission method, rapid data transmission speed, up to 100MBit/s;
- Stronger anti-interference capacity, error rate: 10^-12, the least communication circle: 50us;
- The matched power application range 0.1~12 kW servo motor;
- GE series that matches with the torque motor can be treated as the direction driving rotary table and owns the high positioning accuracy, high speed.
- Convenient servo parameter debugging. Servo parameter modification and servo state monitoring can be performed in the robot system interface;
- GE absolute servo matching with the robot bus system can be carried out the coordinate power-off memory and the debug-free function after power-on again.
- It owns the better low-speed performance, high-range loading inertial matching, high-dynamic response to meet the use requirements for each robot.

**Hypocycloid Cross Roller Decelerator**

- **Compact Structure**
  - The driving axial size can be widely reduced to compact the structure because the driving structure can be placed inside the support bearing of the planetary frame.
- **Strong Holding Capacity**
  - Hypocycloid curvature radius is bigger than the epicycloid comparing with the same condition, and therefore the bearing capacity is bigger than the epicycloid one.
- **Stable driving, long life-span**
  - It adopts the 2-level deceleration structure, the cycloid pin-wheel planetary driving in the low-speed is more stable. Simultaneously, its life-span is widely improved because the swing bears are increased and the inner/outer ring speed is reduced.
- **Low back-lash**
  - Optimum design, least manufacture error, high motion accuracy and low back-lash.
- **Perfect output rigidity**
  - The output mechanism of the hypocycloid planetary pin-wheel driving is used the cross roller bearing of the built-in structure with supporting both terminals; it is the rigid round-disc output structure as bigger as possible; and it owns the bigger rigidity than the output mechanism (angle contact bearing structure) of the RV cycloid decelerator; the shock-resistance capacity is greatly enhanced.
- **Hollow structure**
  - The hollow structure is easily performed the robot layout, shorten the basement side and prevent from wini~
Vision System & Off-line Programming Technique

**Characteristic:** The robot can automatically analyze the workpiece position and capture the workpiece according to the “vision”. The vision matching is positioned to the incoming-material workpiece and omitted the mechanical positioning operation when the workpiece material comes. It saves the system time, and improves the automation rate of the integrative system.

**Application:** Product transportation, sorting, packing and picking material etc.

---

Off-line Programming System

**Characteristic:** The preprocessing can be generated by the off-line programming software; and then the machining file compiled by the robot language can be used by the coordinate change and optimization output, so that the complicated path is generated.

**Application:** It mainly uses to the cutting, gluing, painting, milling, graving and welding of the tridimensional entities.

---

Complete The Sorting Operation By The Robot Vision System

Paint The Panda By The Robot Off-line Programming Technique

PT. NAGAMEGA INDONESIA
GSK Production Line Unit Control System

- To the monitoring management system of the machining field; production equipment assembly line for sorts of components machining;
- The high-speed connection of the CNC machine, industry robot and production line auxiliary operation equipment can be carried out by the GSK-LINK spot bus;
- Support the On-line and Off-line programming;
- Simplification and humanization operation;
- Provide the furthest production efficiency and the stable of the production quality;
- Reduce the artificial cost;
- Optimize and enhance your management system.

The Overall Control Management System of GSK

- It is carried out the management system of the ‘digital factory’ ‘intelligent workshop’;
- CAM and CPP application and administration;
- Convenient and fast schedule programming;
- Calculation and debugging of the production capacity;
- The statistic of the equipment use rate;
- Production schedule interference;
- Evaluate the C/T etc.
It adopts the most advanced GSK RC control system. Throughout, robot can be optimized the acceleration/deceleration based upon the actual loading. and shorten the operation time as much as possible.

The robot monitors its motion and loading and optimizes the service by built-in service information system (SIS), the lasting working time will be longer.

Built-in robot controller: It can be controlled 6-8 axes based upon the ARM + DSP + FPGA hardware structure: up to 500MIPS calculation speed. It owns any of interface of the spot bus, Ethernet, RS232, RS485, CAN and DeviceNet which can be carried out the consecutive path teaching and on-line teaching, as well it owns the remote monitoring and diagnosis function.

Robot spot bus (GSK-Link): high-speed real-time, break though the conflicts between the band width and real-time, balance the communication rate and real-time control and resolve the data real-time interactive problems among different modules;

Dynamics self-adapting identification control technique: Integrated consideration of the foreign interference (gravity, centrifugal force etc.) applies to the adaptive identification control technique to improve the robot’s dynamic performance during the robot motion.
Our Service

- Service idea: Keep on improving for the user.
- Sale service internet covers the whole nation, 41 agencies in domestic and 19 agencies in abroad.
- About 250 professionals of the after-sale;
- The positioning rate of 24-hour after-sale is 99%, 99.5% of 48-hour; so that you can use our product freely.
Typical Application Case

**Transportation**

- Punching Automatic Line Application
- Car Wheel Loading/unloading Production Line Application
- Motor Spindle Automation Machining Application
- Motor End-cover Automation Production Line Application
- Valve Product Machining Application
- Machine Loading/Unloading/Ring Workpiece
- Shock Plate Component Machining Application
- Punching Machine Loading/Unloading Application
- Bending Machine Loading/Unloading Application
- Tool Machine Loading/Unloading/Shelf Workpiece
- Founding Furnace Application
- Gear Machining Loading/Unloading Application
- Tool Machine Loading/Unloading/Shelf Workpiece
- Tool Machine Loading/Unloading/Bar Material

**Stacking**

- Zhejiang Brick Factory Application
- Motor Production Line Application
- Soft Package Rice Stacking Line Application

GSK CNC EQUIPMENT CO., LTD.

PT. NAGAMEGA INDONESIA
Welding Application

Polishing Application

Food Packing Application

Soot-draining Machine Polishing Application

Welding Polishing Application

Golf Ball Arm Polishing Application

Shower Head Polishing Application

Mobile-phone Polishing Application

Password Case Clear Application

Food Packing, gluing

PT. NAGAMEGA INDONESIA
“Diligent” Chinese Robot

PT. NAGAMEGA INDONESIA

Company Address:
Taman Kebalen, Blok Oregon 4/37, RT 016 / RW 027
Kelurahan Kebalen, Kecamatan Babelan
Bekasi, 17610, Indonesia
Tel: (62) 851 0378 9734
HP: (62) 853 1170 2163
E Mail: sales@nagamega.com

Show Room Address:
Tower C, Unit GF-12, Bekasi 17144
Grand Centre Point, Jl. Jend Ahmad Yani