Robotic Welding Nozzie Cleaner

Instruction Manual Type WII

Read this manual first before you use the product. Keep this manual with care.

DAIHEN Corporation
Thank you for purchasing our Nozzle Cleaner "CLEANKIT". Read this manual carefully first before you use the product to correctly use. And keep this manual with care after you read. When you have any troubles, read this manual. Please note that your purchased product may not coincide with the contents of this manual due to changes of the specifications.

⚠️ Safety first

The precautions described in this manual with ⚠️ notations are important items which may result any physical injuries. Read carefully and follow these items.

◇Notations
In this instruction manual, for the handling precautions which can be considered as special important items, we indicate as follows;

⚠️ Warning : If you fail to observe the notice with this mark, you may die or receive a serious injury.

⚠️ Caution : If you fail to observe the notice with this mark, you may receive an injury.

Important : If you fail to observe the notice with this mark, machines may be damaged or troubled.

Supplement : Useful supplementary explanation when using the product.
Consultation contact

If you need any service and inquire of any trouble when using or any question, consult to the seller you purchased the product. When you contact, inform the model name and serial number of the product.

Warning

Modifying the machine will be dangerous. Do not modify the machine.

Note that modifying or using the machine with any different way from the intended purpose described in this instruction manual is not intended by the manufacturer and will make your warranty invalid.
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To work safely

Please carefully read this instruction manual and understand the machine before you use, then try to safely work. In order to safely work, we request you to observe the following precautions and others described on each explanation with "⚠️ Caution" mark in the manual.

1. Before you work

<table>
<thead>
<tr>
<th>After you check the power switch is in OFF position, plug firmly the power plug into an outlet of AC 100V. Be sure to earth the power plug.</th>
<th>Allow the table to be free at any time.</th>
</tr>
</thead>
<tbody>
<tr>
<td>(The guide mechanism doesn’t work well)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>The nozzle diameter correlates with the diameters of the cutter and the guide bushing diameter. Check them in advance.</th>
<th>Set the machine body firmly and horizontally.</th>
</tr>
</thead>
<tbody>
<tr>
<td>(If the machine body moves, the cutter doesn’t easily come into the nozzle).</td>
<td></td>
</tr>
</tbody>
</table>

Wi type: Standard nozzle diameter 13 mm
(If you use other than this diameter, consult to your dealer.)

If you do not use for a long time, pull the power plug out..
2. Caution label and handling

◆ Label types

① NK5715

![Label NK5715](image)

② NK5716

![Label NK5716](image)

◆ Labeling positions

![Machine number label](image)

◆ Mending of the caution labels

1. Wash the label which has been soiled with soap water and then dry it with a soft cloth.
2. Replace the label damaged or lost with new one, purchasing at your dealer.
3. If the part to be replaced is labeled, replace the label at the same time.
Part names and functions

- Guide bushing
  Guide the nozzle to the cutter

- Cutter
  Clean out spatters

- Table
  Move horizontally and vertically to follow the nozzle

- Wire brush

- Power lamp

- Power switch

- Cutter lamp

- Fuse (3A)

- Earth terminal

- Power plug

- Guide fixture metal

- Rotary cutter
  Cut wires

- Container
  Putting adhesive spatter inhibitors in

- Angle
  Install in many directions

M6x16
Setting and preparation

1. Put the can receiver plate between the machine and the angle. Fix them by using M6 bolts. In order to prevent the machine from inclining, put the seat plate shipped with the machine.

2. Mount the earth.

3. After you confirm the power switch of "CLEANKIT" is in OFF position, plug firmly the power plug into an outlet.

Robot teaching

Before you carry out a teaching, confirm the following matters.

**Important**

1. The power switch is in OFF position?
2. The nozzle diameter correspond to the cutter size?
3. The tip is located in the center of the nozzle?

1. Let draw a circle while placing the nozzle to the wire brush.

- Confirm the external surface of the nozzle is being fully brushed by letting draw a smaller circle than the outside diameter of the wire brush.

2. Take the nozzle to a place where is about 20 mm above the guide bushing.

- Adjust the center of the nozzle to the center the guide bushing.
- Adjust the position to plumb the nozzle.
- Remove the nozzle.
3 Push down the guide part of the CLEANK'T by hand and then fix it by using the metal fitting shipped with the machine.

- Hook it to the table ends.

4 Slowly and vertically lower the torch by the use of linear interpolation movement of the robot and adjust it to the spatter removal range.

- About 20 mm from the end face of the nozzle is appropriate. Position the power switch to CUTTER OFF side and then try to turn the cutter.

5 Slowly lift the torch to mount the nozzle.

6 Remove the metal fitting which secures the guide.

- Confirmation of nozzle internal surface cleaning process. Position the power switch to CUTTER OFF side. Operate the torch and check if it exactly works.

7 Move the torch to the front of the cutter (A position).
   (Turn Off the power switch)
- Level the torch to the cutting size of wires you want.
   (C dimension is the size of outputting wires after having cut.)
- Horizontally move the torch from A to B. (Until a wire hits to the notch bottom of the cutter receiver. At this time, the switch should be in ON position)
- Stop the torch at B position for 3 - 4 seconds and then move it upwards.

(Note) "Ball" of wire tip can not be cut, so cut after putting out wires to allow the chip length of 10 - 20 mm.
Operation

1. Position the power switch to ON side. (POWER and CUTTER lamps light)
2. Start the robot and then operate in the following sequential order.
   - Process 1: Nozzle external surface cleaning
   - Process 2: Nozzle internal surface cleaning
   - Process 3: Wire cutting
   - Process 4: Adhesive spatter inhibitors application
3. At the end of work, turn OFF the power switch.

Specification

<table>
<thead>
<tr>
<th>Name</th>
<th>WⅡ type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
<td>K-2725</td>
</tr>
<tr>
<td>Nozzle diameter</td>
<td>13mm, (16mm), (19mm)</td>
</tr>
<tr>
<td>Power supply</td>
<td>AC100V 50/60Hz</td>
</tr>
<tr>
<td>Electric power consumption</td>
<td>52/57W</td>
</tr>
<tr>
<td>Cleaning time</td>
<td>About 20 seconds</td>
</tr>
<tr>
<td>Weight</td>
<td>9.7kg</td>
</tr>
<tr>
<td>Adaptive wire diameters</td>
<td>1.6 mm or smaller</td>
</tr>
<tr>
<td>Accessories</td>
<td>A set of specific fixture metals, Chip receiver can kit, Guide fixture metal, Spatter adhesive inhibitor can kit.</td>
</tr>
</tbody>
</table>

Spare Parts List

<table>
<thead>
<tr>
<th>No</th>
<th>Parts Name</th>
<th>Part No.</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Drill (φ13)</td>
<td>5096-145</td>
<td>Rotation Drill/Attached as standard</td>
</tr>
<tr>
<td>2</td>
<td>Drill (φ16)</td>
<td>5096-146</td>
<td>Rotation Drill</td>
</tr>
<tr>
<td>3</td>
<td>Drill (φ19)</td>
<td>5096-147</td>
<td>Rotation Drill</td>
</tr>
<tr>
<td>4</td>
<td>Bush (φ13)</td>
<td>5096-148</td>
<td>for Guide Bushing/Attached as standard</td>
</tr>
<tr>
<td>5</td>
<td>Bush (φ16)</td>
<td>5096-149</td>
<td>for Guide Bushing</td>
</tr>
<tr>
<td>6</td>
<td>Bush (φ19)</td>
<td>5096-150</td>
<td>for Guide Bushing</td>
</tr>
<tr>
<td>7</td>
<td>Cutter (1)</td>
<td>5096-306</td>
<td>for rotation side</td>
</tr>
<tr>
<td>8</td>
<td>Cutter (2)</td>
<td>5096-307</td>
<td>for fixed side</td>
</tr>
<tr>
<td>9</td>
<td>Adhesive Spatter Inhibitors*</td>
<td>2670-026</td>
<td>1000m l / Recommended parts</td>
</tr>
</tbody>
</table>

*This parts is sold separately.
Before you request repairing

Check the following items again. If the machine doesn’t work normally even after checking them, it may be at fault. So, please contact to your dealer.

<table>
<thead>
<tr>
<th>Problem</th>
<th>Causes</th>
<th>Solutions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Motor at cleaning side doesn’t run</td>
<td>1. Safety device of motor functioned.</td>
<td>1. Once turn off power switch. Actuate again after stopping for about 30 minutes.</td>
</tr>
<tr>
<td></td>
<td>2. Nozzle has not entered vertically.</td>
<td>2. Try again teaching to enter nozzle vertically to cutter.</td>
</tr>
<tr>
<td></td>
<td>3. Diameters of nozzle and cutter are mismatched.</td>
<td>3. Adjust.</td>
</tr>
<tr>
<td></td>
<td>4. Loosen set screw of cutter.</td>
<td>4. Tighten again by using hexagon wrench.</td>
</tr>
<tr>
<td></td>
<td>5. Power plug got off from outlet.</td>
<td>5. Plug power plug to outlet.</td>
</tr>
<tr>
<td>Motor at rotary cutter side doesn’t run</td>
<td>1. Power switch is in CUTTER OFF position.</td>
<td>1. Turn ON power switch.</td>
</tr>
<tr>
<td></td>
<td>2. Switch isn’t in ON position.</td>
<td>2. Adjust as being ON at cutting position of switch in which wire is bent.</td>
</tr>
<tr>
<td></td>
<td>3. Teeth of rotary cutter are jammed.</td>
<td>3. Adjust teeth.</td>
</tr>
</tbody>
</table>

Circuit diagram

K-2725 Wiring diagram

![Wiring diagram](image-url)