Setup option

The following options are required for initial setup. Select them according to solder wire diameter.

- For 0.2 mm or less: BX100
- For 0.3 mm or more: BX200
- For 0.6 mm or more: BX400
- For 1.0 mm or more: BX600
- For 1.5 mm or more: BX800
- For 2.0 mm or more: BX1000
- For 3.0 mm or more: BX2000
- For 4.0 mm or more: BX3000

Option

Smoke absorption system

A large amount of flux smoke is attached to the robot movable part and the periphery before flux smoke rises upward and is exhausted. Providing the absorption nozzle on the lower part with the same height as the work table can absorb smoke before smoke flows upward. Furthermore, since the nozzle also covers the width of the robot in horizontal direction, the smoke absorbs smoke properly even if the two lines move horizontally. Thus, flux smoke amount attaching to the movable part, etc., becomes low, reducing the number of maintenance sessions and leading to increased productivity. Using the absorption nozzle together with the BX-641 as a set allows you to install the smoke absorption system easily without performing facility work.

Smoke absorption nozzle

For HU-200 No. BX100 is equipped with 2 nozzles for connection of BX-641, 1 of which is an absorption nozzle and 4 dust bands.

Smoke goes up without the absorption nozzle.

Specifications

Table-top type robot

Model No. HU-200
Power consumption 300 W
Stroke X axis: 400 mm Y axis: 300 mm Z axis: 200 mm
Packed capacity 10 kg (by 10 kg)
Speed X/Y/Z axis: 1.1 to 800 mm/min, 8 steps 1 to 600 (deposition), 8 steps 60 to 3 degrees/s
Repeatability accuracy X/Y/Z axis: ±0.11 mm. 8 steps ±0.5 degrees
Motor type X/Y/Z axis: Servomotor, Solder feed Servomotor
Noise level 56 dB
Position teaching Remote teaching USB2.0 HUMENS external AXIS
Teaching style Direct teaching by joystick Offline teaching by both PC
Soldering tip 140°, 170°, 200°
Air Not required
External Input/output
Input: 50 Output: 12 (NP) (please for details)

Operating environment Ambient temperature range 2 to 40°C (without condensation or heating) Ambient humidity range 5% to 95% R.H. (without condensation or heating) There shall be no corrosive or combustible gas. There shall be no exceeding dust.
External interface USB x 1 (place for PC)
Dimensions 600.30 x 510.3 x 550 (50) mm
Weight 50 kg

* For the power supply and power consumption for soldering iron unit FU-641, see the website.
* For the soldering tip type and size, see the website.
Easy-to-operate 4-axis + 1 (feeder) control soldering robot system

All-in-one soldering robot system into which the solder feed controller and the programming software are incorporated. All operations such as soldering conditions including solder feed amount and heating time can be controlled collectively by the tablet PC provided as standard equipment.

Time-reduced programming work and excellent operability

1. Collecting control from soldering conditions to robot control with the tablet PC provided as standard equipment

The tablet PC provided as standard equipment allows you to set all items, such as programming and soldering conditions, by the touch-panel operation on the same panel without connecting a teaching pendant or a PC.

2. Pre-installed Easy Programming Software

An easy programming software (Easy Programming Software B) is pre-installed, which allows you to create a soldering program easily without expert knowledge about robots. This software also allows you to control the number of accumulated soldering points and work times. Thus, only setting the tip replacement timing allows the robot to undergo automatic setup.

3. Easy teaching by EPS (Easy Positioning System)

Teaching can be intuitively made using the joystick. The joystick uses feeling such as speed and inching pitch can be easily changed. When performing delicate position adjustment, setting the mode to inching pitch allows you to operate the robot as finely as 0.01 mm unit at minimum. Using the EPS (Easy Position Switch), you can input the coordinate of robot and feed steps automatically, which can reduce the teaching time.

4. Convenient work origin and palletizing functions to shorten the teaching time

In the case of teaching with the same plural P.W.Us arranged, programming is possible only by inputting the offset value from the original position. Soldering position is arranged at the same interval in the case of connectors, etc., can be soldered only by inputting the movement distance and number of soldering sessions after positioning at one section.

5. Prevents malfunctions by reading 2D codes

Reading the barcode and QR code attached on a P.W.U using a barcode reader allows you to select operation channels automatically. This prevents malfunctions by a worker’s mistake.

* A barcode reader is optional.

Useful functions to stabilize the soldering quality

6. A feeder with solder balls and flux splash-prevention function provided as standard equipment

Cutting a V groove on solder surface (as shown below) can prevent solder balls and flux from splashing.

7. A brush-type cleaner provided as standard equipment

A brush-type tip cleaner is employed. This brush-type cleaner can remove not only residual solder but also carbonized generated from burned flux.

8. Quick and easy tip replacement by the tip position adjustment jig

If one more handpiece is prepared, another soldering tip can be mounted on the spare handpiece during operation of the robot.

Soldering work and efficiency improvement

9. Soldering quality and workability increased remarkably using 300 W high power

Using 300 W high power can improve the conventional looseness “non-soldering due to insufficient heating” and “insufficient soldering on through-hole back side.” Work requiring long heating time can be shortened drastically. In the case of fine work, the tip for 140 W can be also used.