		UNIX-GF4S	UNIX-GF3L	UNIX-GF4L
Soldering methods		Contact (Iron tip)	Laser	
Number of axes		4 standard axes, 2 additional axes (optional)	3 standard axes, 2 additional axes (optional)	4 standard axes, 2 additional axes (optional)
Range of movement	X-axis	300/400/500/600 mm		
	Y-axis	300/400/500 mm		
	Z-axis	100 mm		
	R-axis	±360°	—	±360°
Maximum speed*1 (PTP)	X-axis, Y-axis	500 mm/sec		
	Z-axis	400 mm/sec		
	R-axis	900 deg/sec	—	900 deg/sec
Drive method		Stepping motor drive		
Program capacity		Maximum 999 programs		
Program capacity		255 conditions	63 conditions	
Applicable solder diameter*2		φ0.3～1.2（Standard） φ0.5～1.0 (Clean cut type)	φ0.2～0.6、φ0.8 (UPM-052)	
Power supply (voltage)*3*4		Single phase AC 100-120V / AC 220-240V, 50/60 Hz + External DC 48V (depending on equipment supply)		
Power consumption*5		450W (AC power supply) 300W (DC48V power supply for drive)	200W (AC power supply) 440W (DC48V power supply for drive)	
Air		Dry air, 0.5MPa (max), φ6 joint		
Operating conditions		Temperture : 5-40°C Humidity : 45-85% (non-condensing)		
External dimensions (Excluding cables and protrusions) (W×D×H)	Robot body (Excluding head)	Stroke (Y-axis)+693.1× Stroke (X-axis)+369.9×467.5 mm	Stroke (Y-axis)+693.1× Stroke (X-axis)+369.9×477.0 mm	
	Robot controller	W170×D360×H330		
	Soldering controller	W148×D320×H136		
Weight	Robot body (Excluding head)	Maximum 31.8 kg (depending on stroke)		
	Robot controller	8.0 kg		
	Soldering controller	3.8 kg		

∗1: Maximum speed varies depending on conditions.
∗2: The applicable solder diameter may not be usable depending on the manufacturer or the material used, so we strongly recommend you check through testing in advance.
∗3: When using AC 220-240 V power-supply voltage, the connection of the optional power unit ASSY is required.
∗4: For the 3-axis specification, the motor drive power supply is externally supplied with DC48V. For the 4-axis specification, the motor drive power is externally (X/Y-axes) supplied with DC48V and internally (Z/R-axis) supplied with DC24V.
∗5: The power consumption refers only to the robot. Please see the specifications or other relevant documentation for the power consumption of the laser unit.

CAUTION

Each axis will be delivered separately.
This product requires assembly work when delivered.

∗Axis fixing brackets and mounting bases are not included.

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- This catalog reflect the products as of April 2023. The product appearance and specifications can change without notice.
- Read the operating instructions attached to the product carefully before you use it.

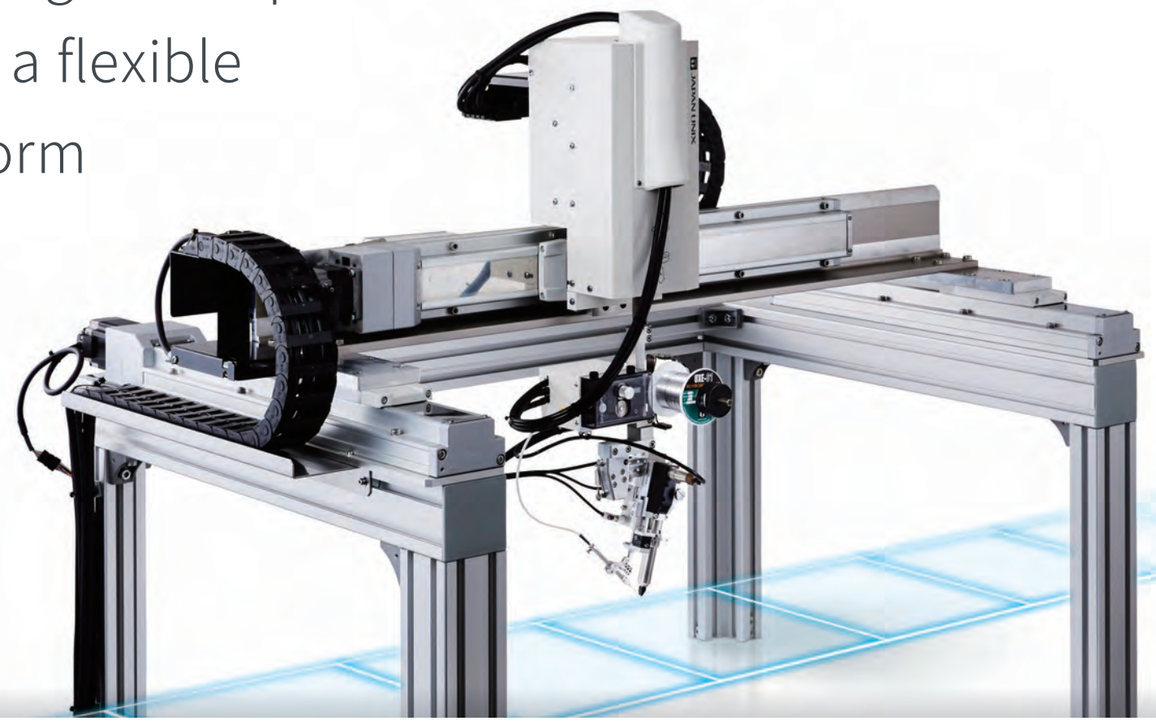
Inquiry No. C00525
Printed in Japan 23041000(P-BASIS)

JAPAN UNIX

SOLDER MEISTER®

Gantry Soldering Platform GF Series vol.3

Maintaining user-friendliness, the best-selling desktop robot evolved into a flexible gantry platform



Gantry Soldering Platform

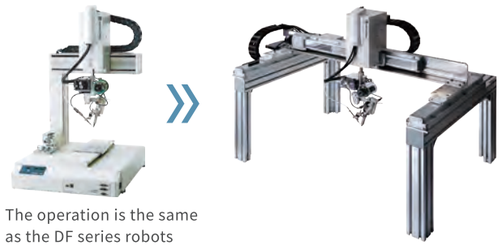
UNIX-GF

Features

Equipped with 4-axis/3-axis gantry robot

The inline robot can operate with the same intuitive teaching method as the DF series.

- Follows the functions of the DF series of desktop automated soldering robots
- Feeder and optional units used in the desktop-type DF series can be used as is
- Compatible with both iron soldering and laser soldering methods
- Up to 2 additional axes can be added (option)

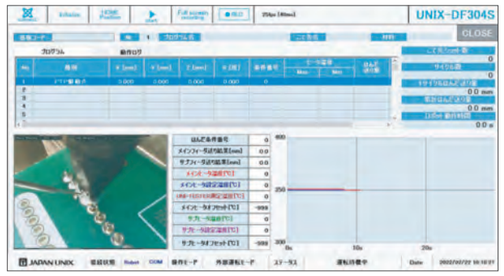


The operation is the same as the DF series robots

Visualizing process management

Enhanced communication network functions for outputting and storing soldering-related data

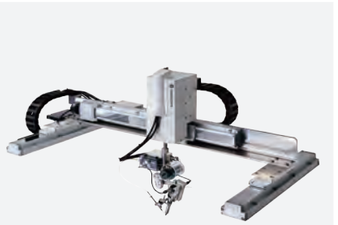
- Real-time monitoring and record keeping of soldering information.
- External command control for editing and setting soldering conditions, etc.



Soldering Manager

Standard Configuration

Common Components for Soldering Irons/Lasers



Main Body of Robot

Robot Controller

Soldering Controller

∗ Please note that the base and axis mounting brackets are not included.

Solder Feeders ∗Choose from 2 types

Solder Feeder (Standard)

Clean Cut Feeder PATENTED

Cutting into the solder during solder feeding prevents flux splattering and the generation of solder balls.

Iron Tip Components

Soldering Head/Heater

∗Available in two different types
- UMC-090B-BHL/ Cross Heater L
- UMC-090B-BHS/ Cross Heater LS

Lock-on Mechanism (For iron tip) PATENTED

The angle block prevents misalignment of the solder supply position, which tends to occur during maintenance.

∗Can be changed to an angle setter with scale.

Iron Tip Cleaners (With vacuum function) ∗Choose from 2 types

Iron Tip Cleaner (Standard)
UJC-214

Iron Tip Cleaner
(With air curtain mechanism)
UJC-219 PATENTED

Reduces the scattering of solders and prevents them from accumulating locally, making maintenance easier.

Laser Components

Laser Unit

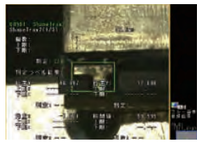
Laser Head

Options

Soldering iron options　Laser options

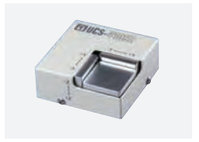
Soldering Manager

Numerical information and video captured by a USB camera during the operation of the robot are automatically saved, which can be utilized for analysis of defects.



Vision Position Correction Sensor

Detects target shape with a camera and automatically corrects misalignments in the workpiece.



Three-Axis Tip Position Corrector PATENTED

Quickly and automatically corrects position gap due to tip erosion and/or thermal expansion.

Brush Cleaner UJC-217A

Rotate two brushes to remove stubborn carbides and oxides attached to the tip end.

Soldering Iron Tester UNI-TESTER

Capable of measuring tip to ground potential, tip to ground resistance, and iron tip temperature of soldering robots. Data communication to external devices is possible via serial communication.

Lock-On Mechanism (for laser) PATENTED

The angle block prevents misalignment of the solder supply position, which tends to occur during maintenance.

Residual Solder Sensor

When solder is running out, the sensor detects and alerts for replacement.

Thermo Pro™ PATENTED

It is a collective term for laser soldering systems using pyrometer. Temperature can be controlled and managed during soldering.

Switch Box

You can quickly start, initialize and perform an emergency stop at your fingertips.