

SELECTIVE SOLDERING SYSTEMS

AF Series

Economical equipment

Easy maintenance

Easy operation

AF 4050A

AF iN4050A

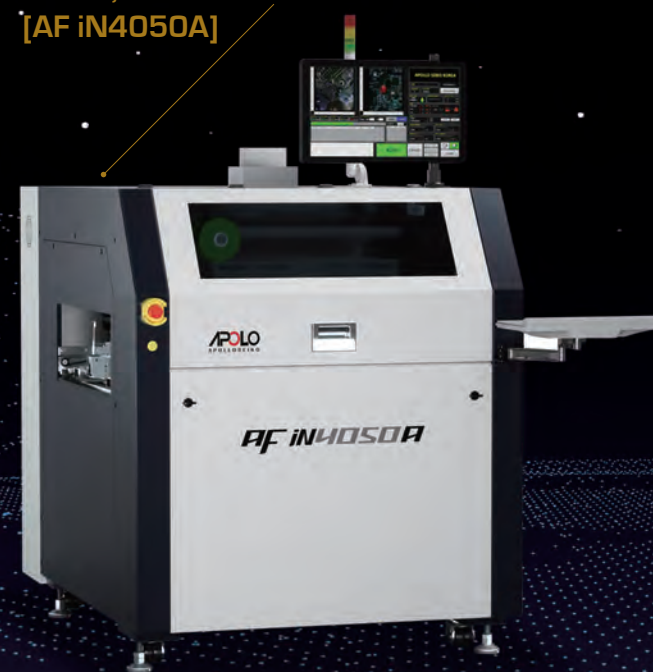
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Off-Line, All-in-one
[AF 4050A]



In-Line, All-in-one
[AF iN4050A]



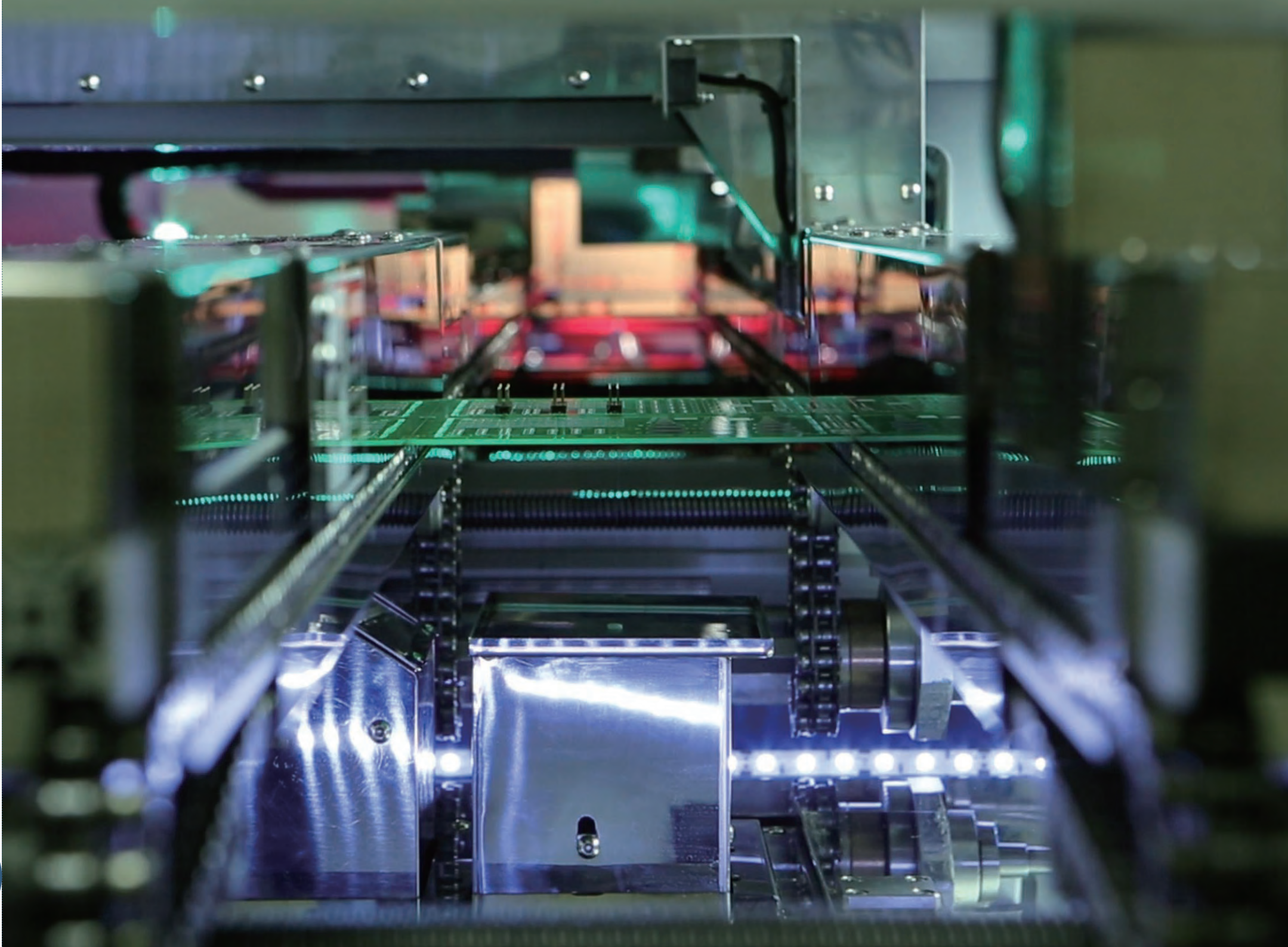
AF iN4050

IN-Line
[AF iN4050] Z3



IN-Line
[AF iN4050] Z4





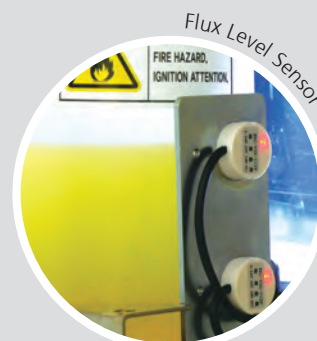
Flux unit – much faster !! more accurate

Convenience

1. 2L flux bottle
2. Level sensor to check residual amount of flux
3. Flux usage and residual amount displayed on program screen

Various

1. Each point spray or line spray is possible
2. It can change the spray time and control the movement speed of spray zone.



Precision

1. The Fiducial recognition vision is applied to automatically compensate for difference of product and Fixture(pallet) position
2. The Micro Drop Jet flux unit spray only the correct amount of flux

Monitoring

1. Monitoring the process of flux spray with the Live Camera
2. Checking that the flux is sprayed well by the flux detection sensor (Option)



Preheater - Keeping the same temperature !!

Fast temperature feedback !!

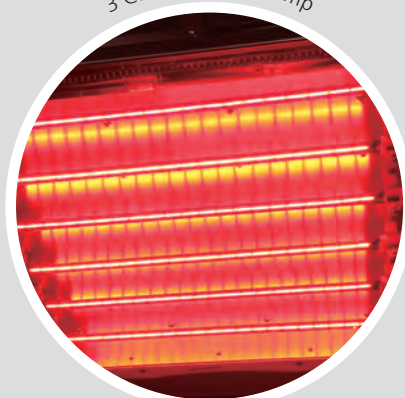
Convenience

1. Automatically preheater channel turns on / turns off according to product or PCB size

Various

1. Upper and lower 3 channels of IR Lamp
2. Various setting of preheating temperature
3. Setting preheating in 3 ways
 - 1) Solder after preheating
 - 2) with preheating and soldering
 - 3) Without preheating

3 Channels of IR Lamp



Precision

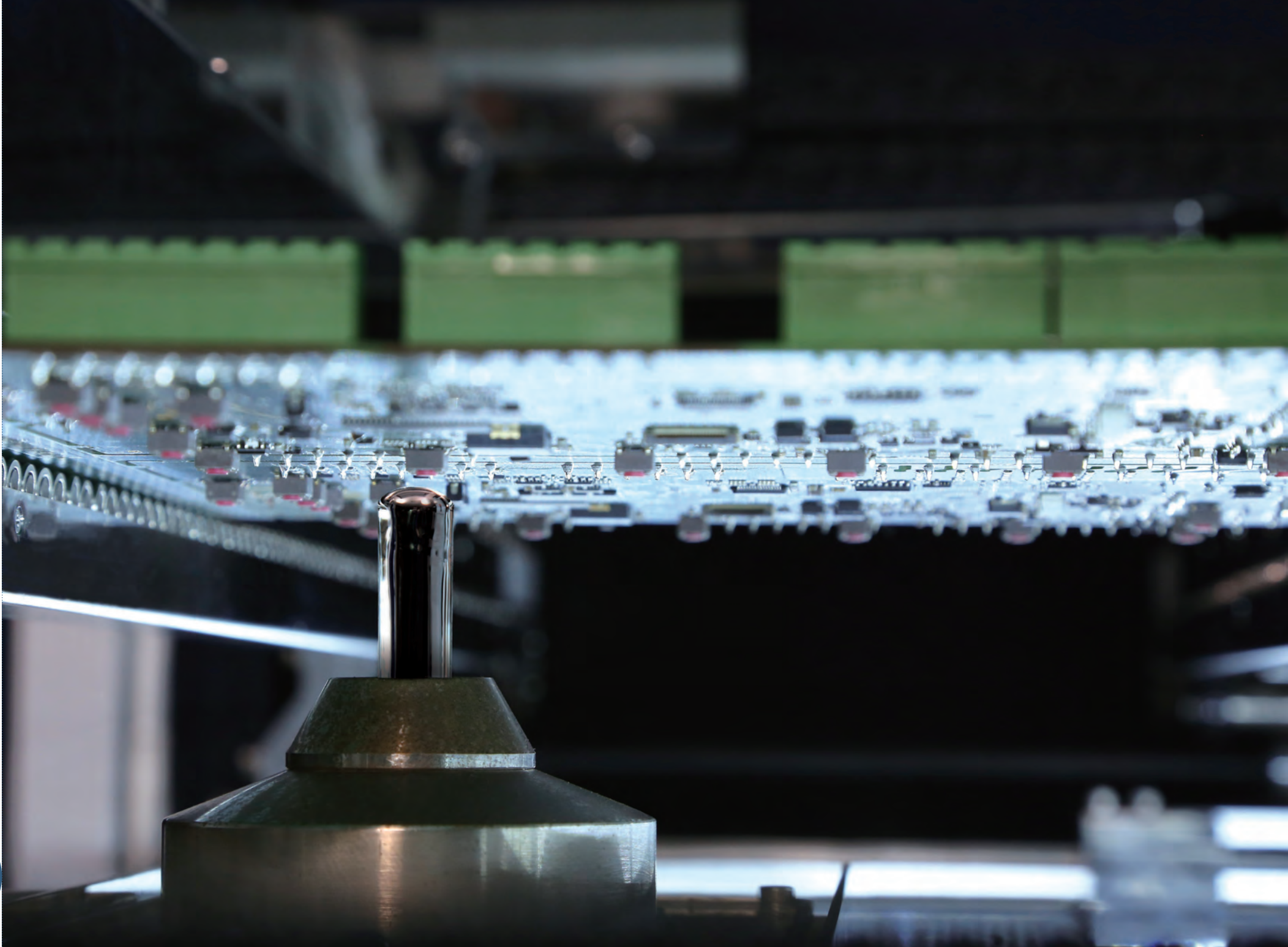
1. The temperature control range of the preheater is 50°C to 150°C
2. Feedback system to keep temperature constant when set temperature is reached

Monitoring

1. Infrared temperature sensor measures heating temperature of product and then feedback
2. The current heating temperature of the product in real time displayed on program screen



IR temperature sensor



Solder - Patented solder pot system !!

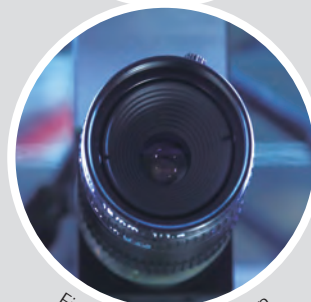
Setting various conditions!!

Convenience

1. Easy replacement of solder pot and nozzle
2. Convenient functions required for soldering process
3. Production preparation and program execution with one click

Various

1. Various setting of solder pot temperature
2. It can create many different programs
3. Keep preheat temperature constant with upper preheater
4. **Patent No. : 10 - 1544676**

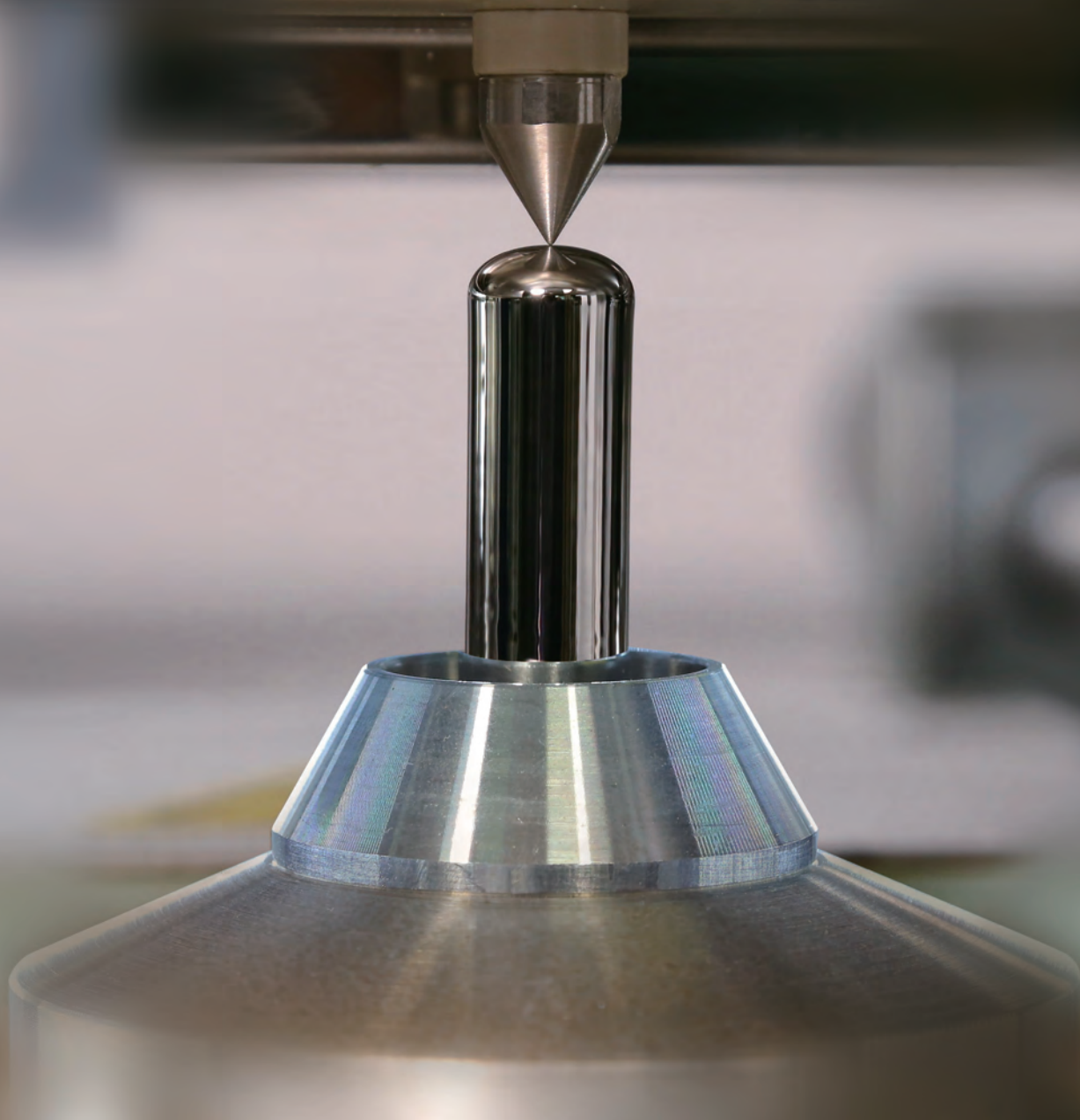


Precision

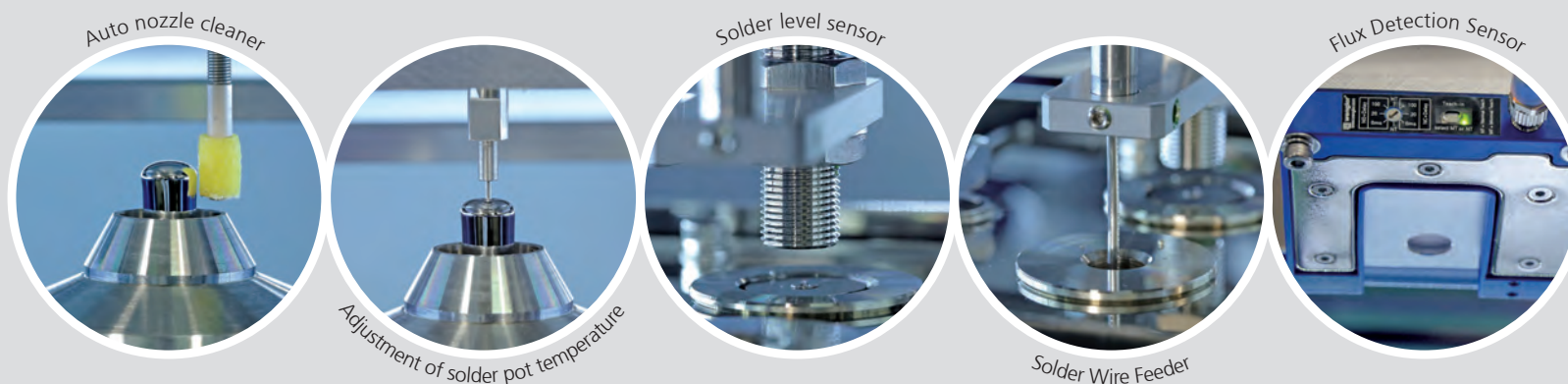
1. Feedback system to keep the temperature constant when the solder pot reaches on the set temperature
2. The Fiducial recognition vision is applied to automatically compensate for difference of product and Fixture(pallet) position

Monitoring

1. Monitoring the process of soldering process with the Live Camera
2. Sequentially track and monitoring of programmed coordinates and conditions



Utility - Machine with various convenience functions!



Auto solder feeder

A unit that supplies solder wire for set time

Solder level sensor

A Unit that automatically checks solder amount of the solder pot and maintains solder level in the solder pot

Auto flow height adjustment

A unit that constantly adjusts the flow height of the nozzle tip

Auto nozzle cleaner

A unit that automatically optimizes the flow by cleaning the nozzle

patent No. : 10 - 1625151

Adjustment of solder pot temperature

A unit that automatically adjusts the temperature of the solder pot by measuring the temperature on the tip of the nozzle

N2 Heater

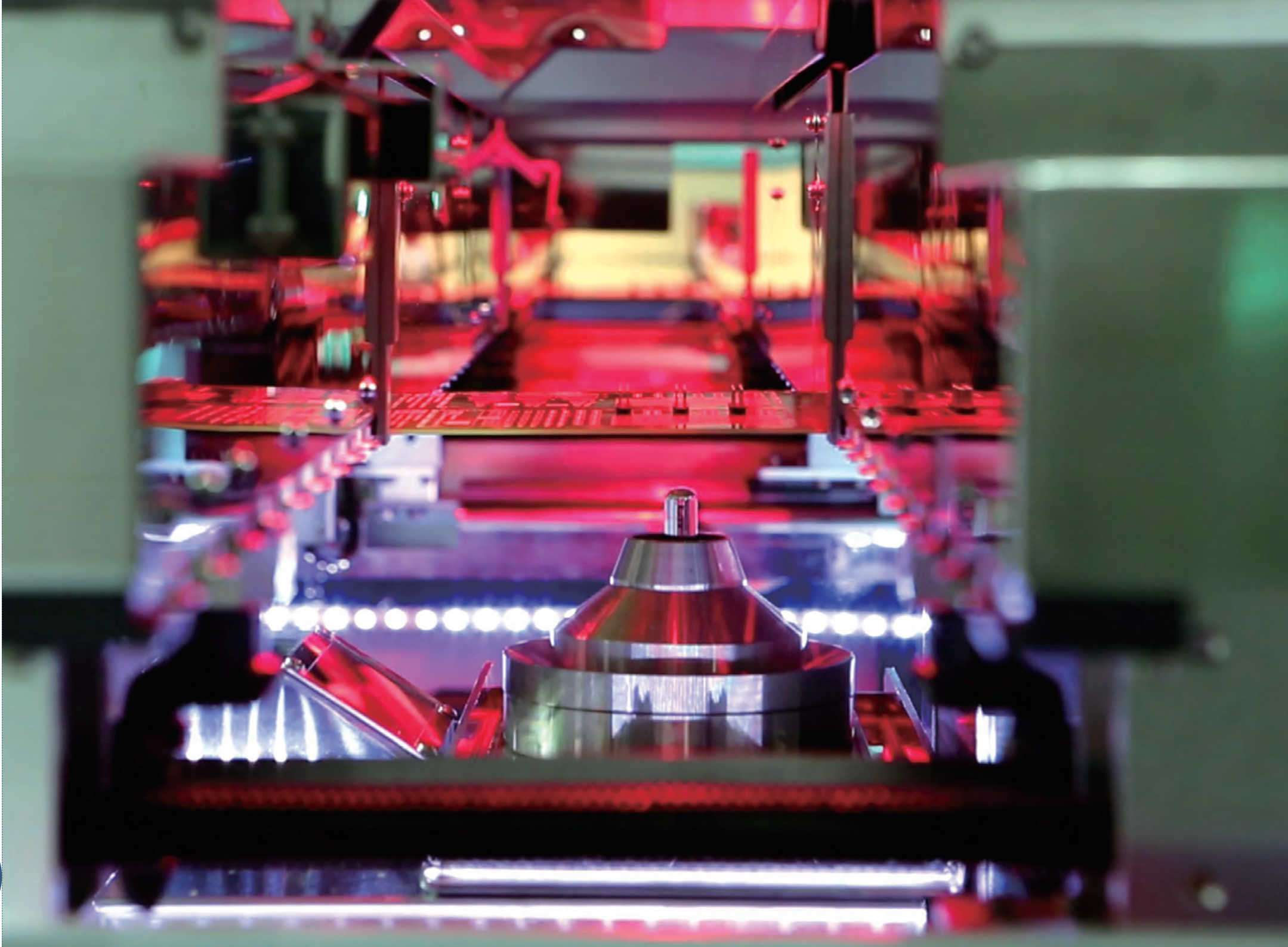
A Unit that heats the nitrogen coming into the solder pot

N2 purity check unit

A Unit that checks the purity of nitrogen supplied to the solder pot (Option)

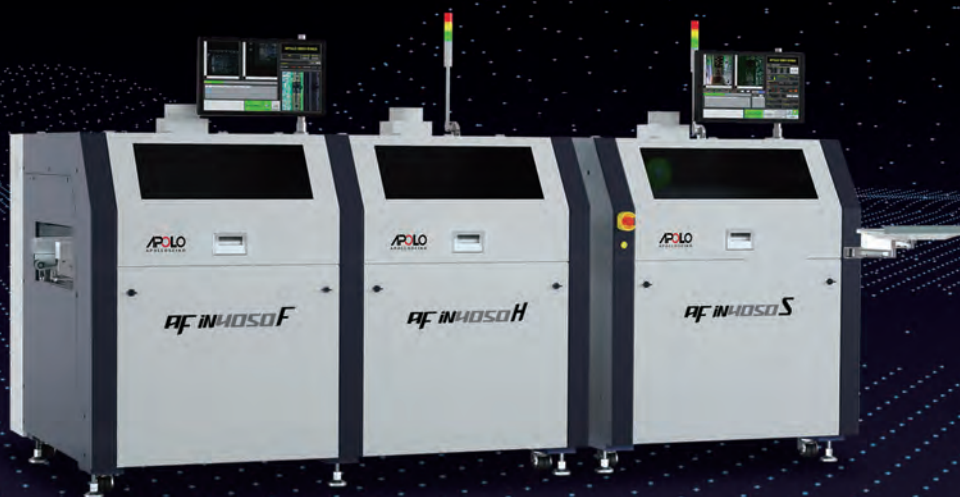
MES(Manufacturing Execution System)

A program to manage soldering process and condition history (Option)



AF iN4050

- As In Line Machine
- Machine consisting of three modules :
Flux module, Preheater module, Solder module



- ▶ Auto flow height adjustment by touch probe
- ▶ Auto nozzle cleaner
- ▶ Auto solder feeder & solder level sensor
- ▶ Auto adjustment of coordinates by the FIDUCIAL VISION
- ▶ Automatic adjustment of solder pot temperature
- ▶ Preheater : Top 3ch IR heater, Bottom 3ch IR heater
- ▶ Save of the soldering video & Management of the soldering condition(MES/Option)
- ▶ Language support (Korean, English, Japanese, Chinese)
- ▶ Remote control support by internet

Size

▶ AF iN4050

1. Flux & Preheater : 2000(W) X 1640(L) X 1551(H)
2. Solder : 1300(W) X 1640(L) X 1551(H)
3. Working Area(X x Y) : 500 X 400mm

▶ AF iN2535

1. Flux & Preheater : 1850(W) X 1490(L) X 1551(H)
2. Solder : 1150(W) X 1490(L) X 1551(H)
3. Working Area(X x Y) : 350 X 250mm



APOLLOSEIKO

CVW(134 mm)

QUANTITY
80

CYCLE TIME
00:00:00

END TIME
00:00:00

FILE OPEN

FLUX LEVEL
USAGE
0.00000 L

POSITION ADJUST
POSITION ADJ.

NOZZLE SIZE
Φ 10.0 mm

TEMP.
PRE HEAT 32 °C 70 °C PRE HEAT
SOLDER 280 °C 280 °C ADJUST 0 °C
N2 260 °C 260 °C

FLOW
FLOW 553 rpm 585 rpm
FLOW ADJUST -31 rpm

FLOW START STOP

FLOW ADJUST
AUTO FLOW ADJUST
CYCLE 0 / 10 CY

POT LEVEL CHECK AND FEED
AUTO POT LEVEL CHECK AND FEED
CYCLE 0 / 20 CY

POT CLEANING
AUTO NOZZLE CLEANING
CYCLE 0 / 10 CY

MAIN AIR 0.56 Mpa
FLUX TANK 29.0 kpa
N2 FLOW 15.1 l/min
N2 PRE. 0.16 Mpa
O2 PPM 0000 ppm

STEP BLOCK
ALL FROM 1 TO 2

FLUX SOLDER

0%

NO.	X AXIS	Y AXIS	X/Y SPEED	JOB	WAIT
1	359.17	406.17	400	D	0
2	359.17	353.89	30	E	0

WORK NO. P 0

NAME	VALUE1	VALUE2

17:12:38: TEMP. ADJUST START
17:12:07: Level Check:Level = 2.7 mmH Limit(2mm)
17:11:55: Start Lead Check P1
17:11:20: Level Check:Level = 2.7 mmH Limit(2mm)
17:11:08: Start Lead Check P1
17:10:43: Start Lead Check P1

AUTO MODE

CANCEL

PRODUCT LOADING
PRODUCT UNLOADING
NOZZLE MANAGEMENT POSITION

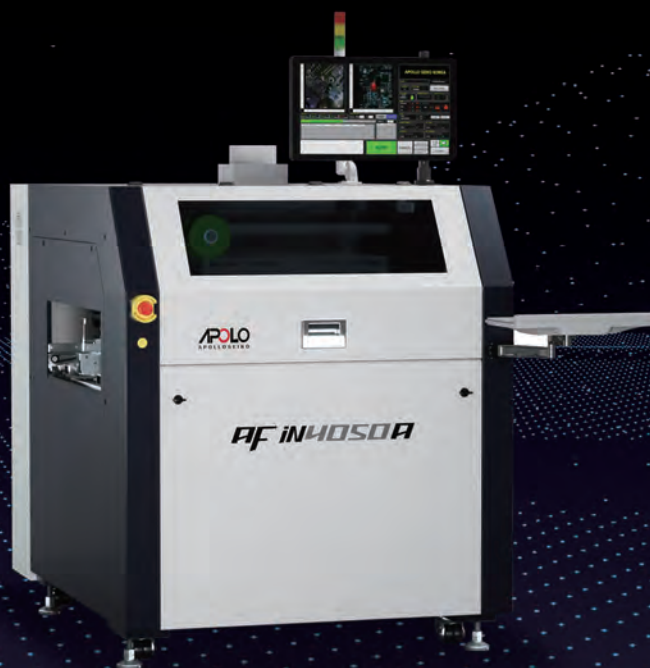
FLUX SOLDER

CLOSE



AF iN4050A

- As In Line Machine
- Machine consisting of one modules :
Flux & Top preheater & Solder module



- ▶ Auto flow height adjustment by touch probe
- ▶ Auto nozzle cleaner
- ▶ Auto solder feeder & solder level sensor
- ▶ Auto adjustment of coordinates by the FIDUCIAL VISION
- ▶ Automatic adjustment of solder pot temperature
- ▶ Preheater : Top 3ch IR heater
- ▶ Save of the soldering video & Management of the soldering condition(MES/Option)
- ▶ Language support (Korean, English, Japanese, Chinese)
- ▶ Remote control support by internet

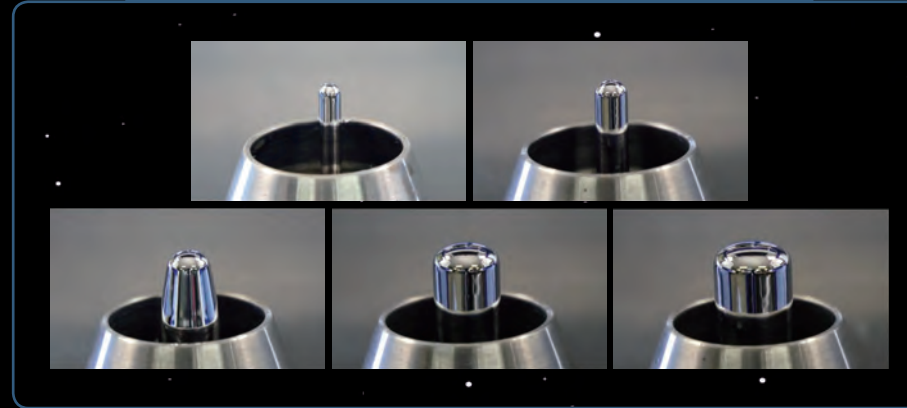
Size

- ▶ AF iN4050A

1. Size : 1300(W) X 1640(L) X 1551(H)
2. Working Area(X x Y) : 500 X 400mm

- ▶ AF iN2535A

1. Size : 1150(W) X 1490(L) X 1551(H)
2. Working Area(X x Y) : 350 X 250mm

Standard Type(Circle)**Customization Type(Circle)****Customization Type(Rectangle, Multi)**

AF 4050A

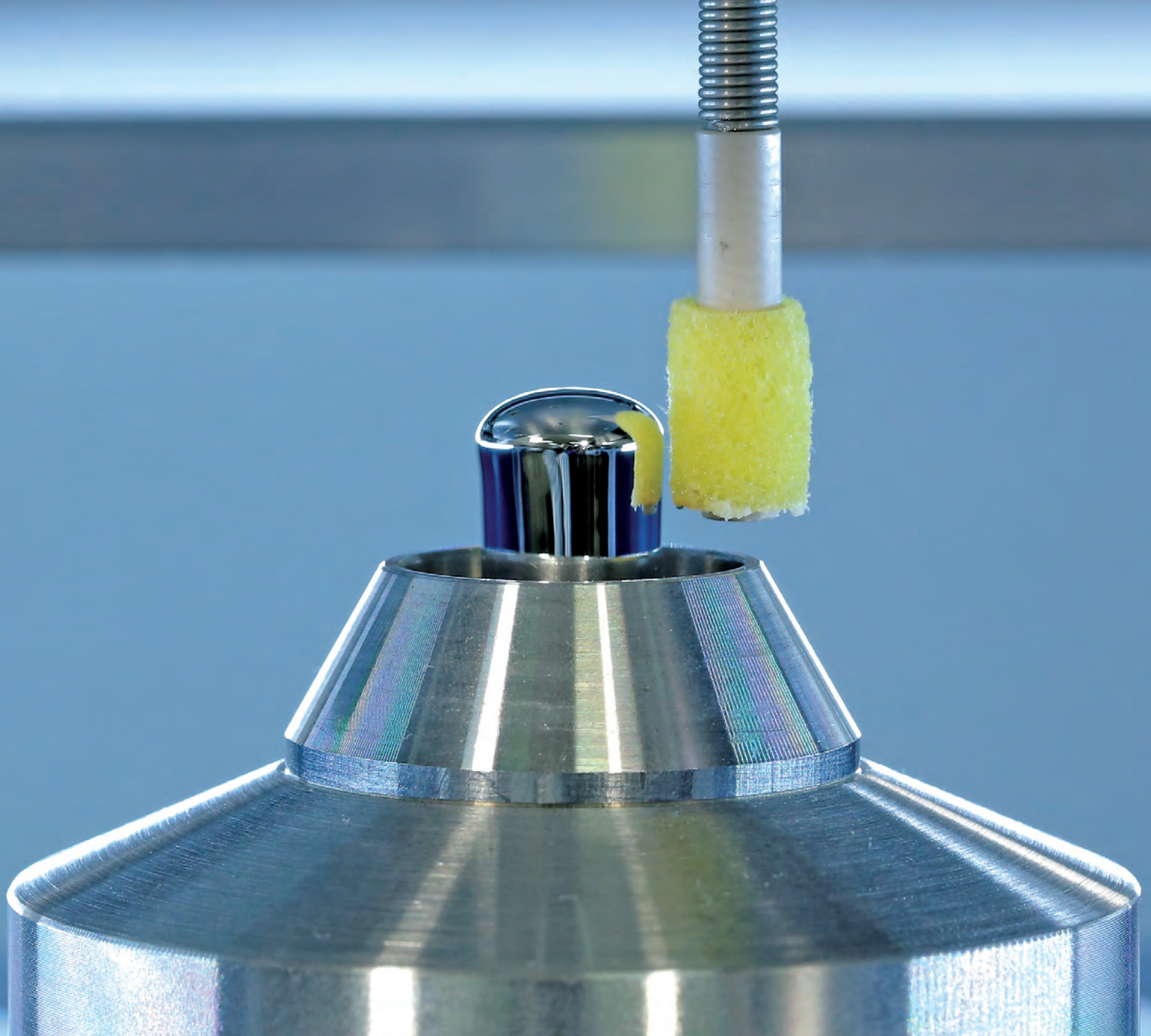
- As Off Line Machine
- Machine consisting of one modules :
Flux & Top preheater & Solder module



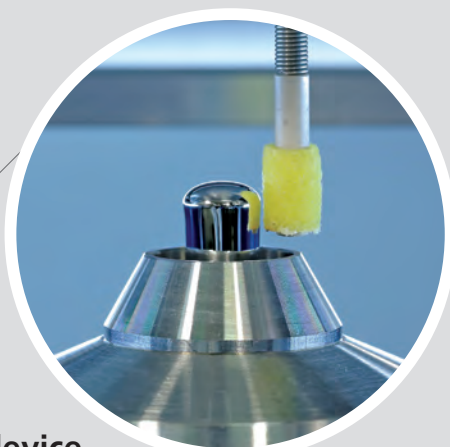
- ▶ Auto flow height adjustment by touch probe
- ▶ Auto nozzle cleaner
- ▶ Auto solder feeder & solder level sensor
- ▶ Auto adjustment of coordinates by the FIDUCIAL VISION
- ▶ Automatic adjustment of solder pot temperature
- ▶ Preheater : Top 3ch IR heater
- ▶ Save of the soldering video & Management of the soldering condition(MES/Option)
- ▶ Language support (Korean, English, Japanese, Chinese)
- ▶ Remote control support by internet
- ▶ Products loading mode : Auto shuttle

Size

- ▶ AF 4050A
 1. Size : 1200(W) X 1930(L) X 1551(H)
 2. Working Area(X x Y) : 500 X 400mm
- ▶ AF 2535A
 1. Size : 1050(W) X 1780(L) X 1551(H)
 2. Working Area(X x Y) : 350 X 250mm



Patented technology for selective soldering



Title of the Invention
Nozzle rotating cleaning device

Patent Number 10-1625151



Title of the Invention
Vertically coupled pumping Pot

Patent Number 10-1544676





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