



FX-780 / FX-781

N₂ Generator



- Highest concentration of nitrogen gas: 99.9%
- Compact design reduces footprint.
- Large-capacity type accepts 2 soldering irons (FX-781).

FX-791

N₂ Flowmeter



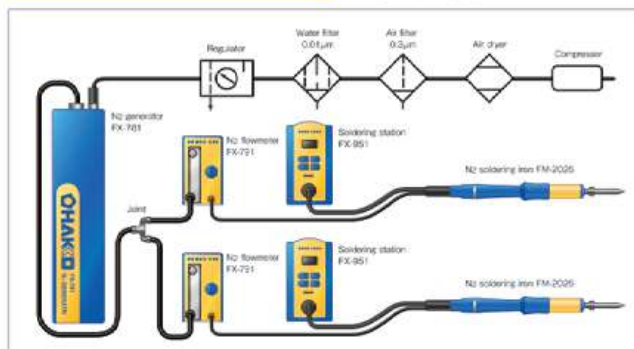
- Flowmeter for N₂ soldering iron with flow control valve and regulator

- The preheating effect is achieved by passing nitrogen gas along the heating element in the hand piece.
- Improvement of wettability and spreadability
- Preventing oxidation

Connection Method

For two soldering irons

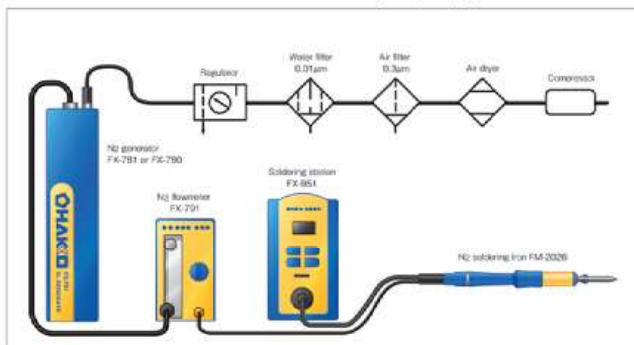
Large-capacity type : FX-781



* It is capable to supply high concentration nitrogen of 97% at the output rate approx. 1L/min. (at air supply pressure of 0.5MPa)

For one soldering iron

Small-capacity type : FX-780
Large-capacity type : FX-781



* It is capable to supply high concentration nitrogen of 99.9% at the output rate approx. 1L/min. (at air supply pressure of 0.7MPa)

Specifications

Model No.	FX-780	FX-781
Air supply pressure	0.3 to 0.7 MPa	
Concentration of generated N ₂	99.9% (max.)	
Amount of generated N ₂	1.5 L/min. (When compressed air of 0.5 MPa is supplied at 25°C, the concentration of the generated nitrogen is 98%.)	2.4 L/min. (When compressed air of 0.5 MPa is supplied at 25°C, the concentration of the generated nitrogen is 98%.)
Dimensions*	73 (W) × 282 (H) × 71 (L) mm	73 (W) × 407 (H) × 71 (L) mm
Weight**	1.5 kg	2 kg

* Without sockets and valve

** Without racks

Model No.	FX-791
Pressure of discharged gas	0.2 MPa (2 kgf/cm ²)
Gas flow	0.25 to 2.5 L/min.
Dimensions	70 (W) × 121 (H) × 134 (D) mm
Weight	600 g

Packing List

FX-780	Unit, Rack for unit (2 pcs), Instruction manual
FX-781	Unit, Racks for unit (4 pcs), Instruction manual
FX-791	Unit, Instruction manual

Applicable Soldering Station

N₂ Soldering Iron

FN-1102 95 W	FX-8003 260 W	FX-8302 150 W	FM-2031 140 W	FM-2032 48 W	FM-2026 70 W	FX-8802 65 W
IoT Capable	Heavy Duty		High Performance			All-Round
FN-1010	FX-801	FX-838	FM-206 FM-203	FX-951 FM-206 FM-203	FX-951 FM-206 FM-203 FM-204 FX-950	FX-888D FX-889 * Use FX-8802 below 450°C.
					* Use FM-2026 below 400°C.	

Effects of N₂ system

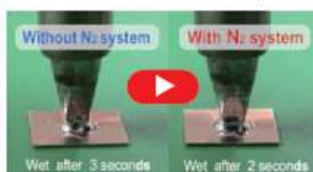
Heated N₂ gas discharged from the tip end produces three effects. As a result, solderability increases, which allows you to enjoy the following advantages.



- Compatible with no-clean soldering (low-activity flux)
- Solves the insufficient heat supply problems which may occur during soldering of multilayer boards
- Reduces cracking in multilayer ceramic capacitors by thermal stress
- Reduces soldering time
- Relieves loads applied to heat-sensitive parts
- Reduces tip oxidation

● Improving wettability

Heated N₂ gas preheats P.W.B.s and shuts out oxygen. As a result, it prevents the oxidation of solder and flux and improves wettability.



● Preventing oxidation

Heated N₂ gas reduces the oxidation of tips (iron plating). As a result, the wettability of tips is improved.

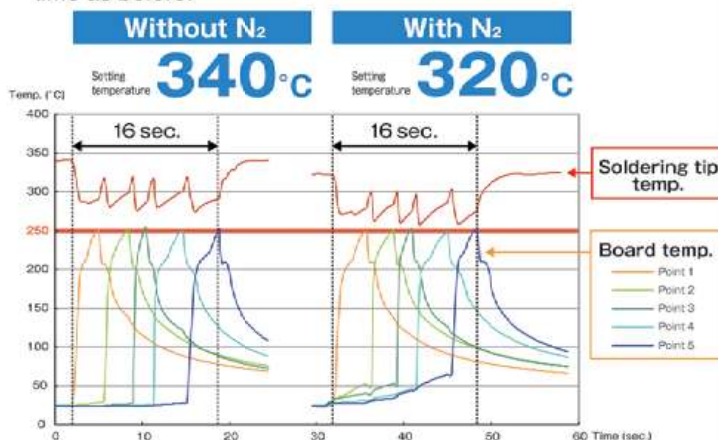


■ Test criteria

- After applying power for 3 hours with the temperature set at 400°C, feed solder and perform cleaning, and then compare the conditions.

● Preheating effect

Heated N₂ gas preheats the workpiece. As a result, even if the temperature setting is low, soldering can be finished in the same time as before.



■ Test criteria

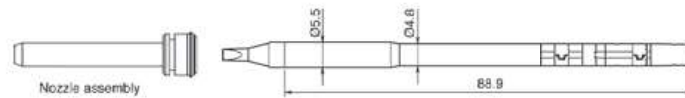
- Board: Paper phenol copper board
- Component: Connector
- Solder: Lead-free solder (Sn-3Ag-0.5Cu) $\phi 0.5\text{mm}$
- Tip shape: T12-D24 and T13-D24
- Measurement method: Measure the time until the workpiece reached to 250°C at 5-points

The three effects result in improved workability, quality stability and reduced running cost.

Optional Tips and Nozzle Assemblies for FN-1102

Tip and nozzle assembly are supplied separately. Please purchase a compatible nozzle assembly for your tip referring the chart below.

Unit: mm



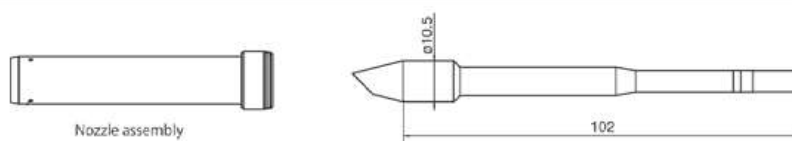
T36-B Shape-0.2B 	T36-B2 Shape-0.5B 	T36-BL Shape-BL 	T36-BC1 Shape-1BC 	T36-BC2 Shape-2BC
B5233 Nozzle assembly A	B5234 Nozzle assembly B	B5234 Nozzle assembly B	B5235 Nozzle assembly C	B5234 Nozzle assembly B
T36-BC3 Shape-3BC 	T36-C1 Shape-1C 	T36-C4 Shape-4C 	T36-D08 Shape-0.8D 	T36-D16 Shape-1.6D
B5236 Nozzle assembly D	B5235 Nozzle assembly C	B5236 Nozzle assembly D	B5233 Nozzle assembly A	B5233 Nozzle assembly A
T36-D24 Shape-2.4D 	T36-DL32 Shape-3.2DL 	T36-D52 Shape-5.2D 	T36-I Shape-I 	T36-ILS Shape-ILS
B5233 Nozzle assembly A	B5237 Nozzle assembly E	B5237 Nozzle assembly E	B5233 Nozzle assembly A	B5235 Nozzle assembly C
T36-J02 Shape-0.2J 	T36-JS02 Shape-0.2JS 	T36-K Shape-K 		
B5234 Nozzle assembly B	B5233 Nozzle assembly A	B5237 Nozzle assembly E		

Optional Tips and Nozzle Assemblies for FX-8003

Tip and nozzle assembly are supplied separately. Please purchase a compatible nozzle assembly for your tip referring the chart below.

Unit: mm

Regular type



T33-BC2 Shape-2BC 	T33-BC3 Shape-3BC 	T33-BC4 Shape-4BC 	T33-BC5 Shape-5BC 	T33-BC6 Shape-6BC
B5070 Nozzle assembly B	B5070 Nozzle assembly B	B5069 Nozzle assembly A	B5069 Nozzle assembly A	B5069 Nozzle assembly A
T33-D24 Shape-2.4D 	T33-D32 Shape-3.2D 	T33-D5 Shape-5D 	T33-D6 Shape-6D 	T33-1610
B5070 Nozzle assembly B	B5069 Nozzle assembly A	B5069 Nozzle assembly A	B5069 Nozzle assembly A	B5070 Nozzle assembly B
T33-1611 				
B5070 Nozzle assembly B				

Slim type

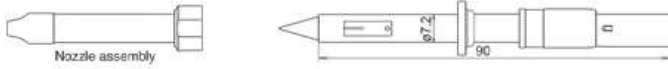
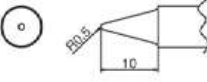
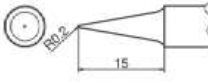
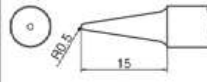
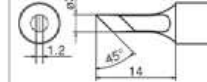
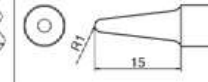
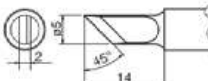
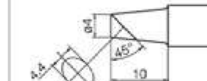
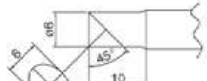
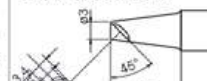
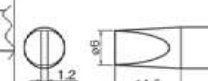
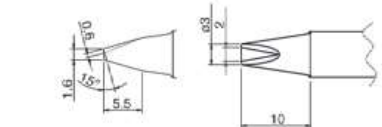
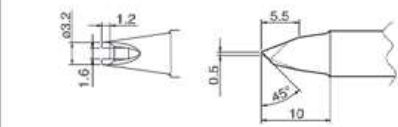


T33-SSBC2 Shape-2SSBC 	T33-SSBC3 Shape-3SSBC 	T33-SSBC4 Shape-4SSBC 	T33-SSBC5 Shape-5SSBC 	T33-SSD16 Shape-1.6SSD
B5239 Nozzle assembly C	B5239 Nozzle assembly C	B5240 Nozzle assembly D	B5240 Nozzle assembly D	B5239 Nozzle assembly C
T33-SSD24 Shape-2.4SSD 	T33-SSD32 Shape-3.2SSD 	T33-SSD6 Shape-6SSD 	T33-SS1610 	T33-SS1611
B5240 Nozzle assembly D	B5241 Nozzle assembly E	B5241 Nozzle assembly E	B5239 Nozzle assembly C	B5239 Nozzle assembly C

Optional Tips and Nozzle Assemblies for FX-8302

Tip and nozzle assembly are supplied separately. Please purchase a compatible nozzle assembly for your tip referring the chart below.

Unit: mm

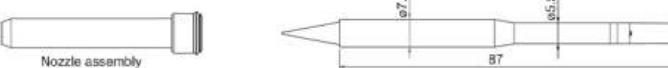
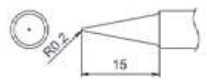
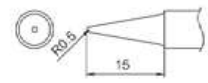
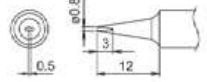
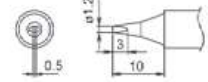
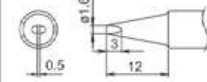
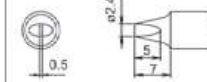
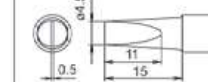
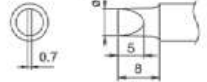
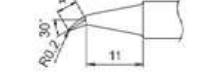
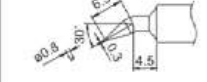
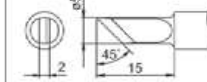
					
T20-B2 Shape-0.5B	T20-BL Shape-BL	T20-BL2 Shape-2BL	T20-J02 Shape-0.2J (0.2RSB)	T20-KU Shape-KU	T20-BL3 Shape-3BL
					
B3121 Nozzle assembly A	B3121 Nozzle assembly A	B3121 Nozzle assembly A	B3122 Nozzle assembly B	B3122 Nozzle assembly B	B3123 Nozzle assembly C
T20-D16 Shape-1.6D	T20-K Shape-K	T20-BC2 Shape-2BC T20-BCF2*	T20-BC3 Shape-3BC T20-BCF3*	T20-BC4 Shape-4BC T20-BCF4*	T20-C5 Shape-5C
					
B3123 Nozzle assembly C	B3123 Nozzle assembly C	B3124 Nozzle assembly D	B3124 Nozzle assembly D	B3124 Nozzle assembly D	B3124 Nozzle assembly D
T20-C6 Shape-6C	T20-D24 Shape-2.4D	T20-D32 Shape-3.2D	T20-BCM2 Shape-2BC Bevel with indent	T20-BCM3 Shape-3BC Bevel with indent	T20-D6 Shape-6D
					
B3124 Nozzle assembly D	B3124 Nozzle assembly D	B3124 Nozzle assembly D	B3124 Nozzle assembly D	B3124 Nozzle assembly D	B3561 Nozzle assembly E
T20-1610		T20-1611			
					
B3124 Nozzle assembly D		B3124 Nozzle assembly D			

* These tips are tinned on the soldering surface only.

Optional Tips and Nozzle Assemblies for FM-2031

Tip and nozzle assembly are supplied separately. Please purchase a compatible nozzle assembly for your tip referring the chart below.

Unit: mm

					
T22-BL Shape-BL	T22-BL2 Shape-2BL	T22-BC2 Shape-2BC	T22-C3 Shape-3C	T22-C5 Shape-5C	T22-C6 Shape-6C
					
B3121 Nozzle assembly A	B3121 Nozzle assembly A	B3121 Nozzle assembly A	B3121 Nozzle assembly A	B3124 Nozzle assembly D	B3124 Nozzle assembly D
T22-D08 Shape-0.8D	T22-D12 Shape-1.2D	T22-D16 Shape-1.6D	T22-D24 Shape-2.4D	T22-D32 Shape-3.2D	T22-D45 Shape-4.5D
					
B3123 Nozzle assembly C	B3121 Nozzle assembly A	B3123 Nozzle assembly C	B3561 Nozzle assembly E	B3124 Nozzle assembly D	B3124 Nozzle assembly D
T22-D52 Shape-5.2D	T22-J02 Shape-0.2J	T22-JD08 Shape-0.8JD	T22-K Shape-K		
					
B3124 Nozzle assembly D	B3121 Nozzle assembly A	B3561 Nozzle assembly E	B3123 Nozzle assembly C		

