

**HAKKO FR-400** ESD  
DESOLDERING TOOL SAFE

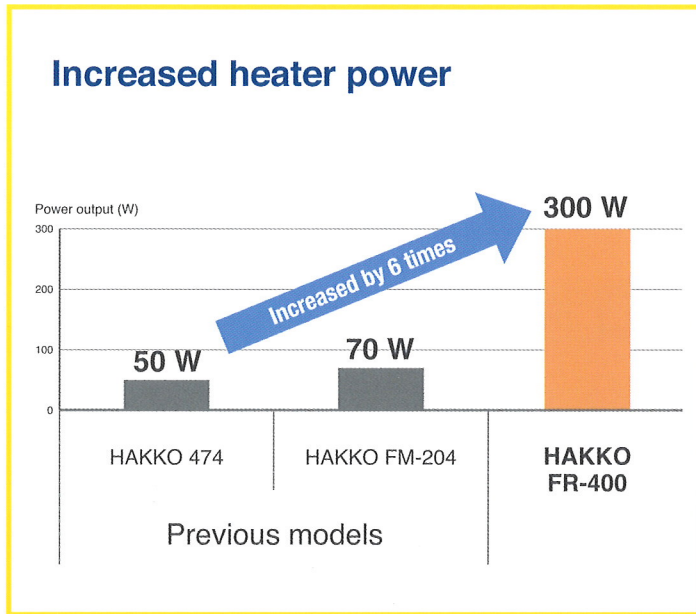
# The Super Power of 300 Watts ! Pioneer the New World of Desoldering

Achieve quick and secure desoldering even on high heat capacity and high heat dissipation property PWB.

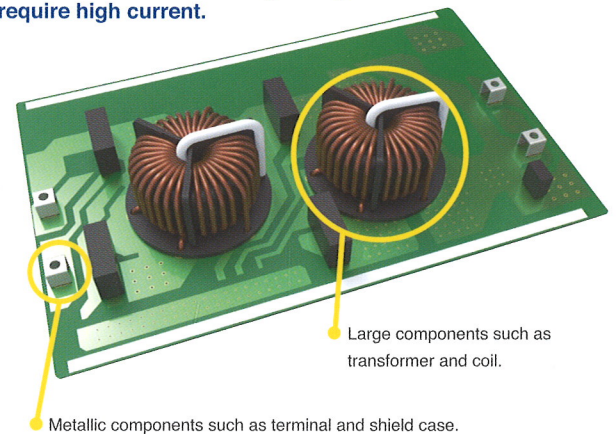


# ■ 300 W tremendous power enables nearly impossible desoldering on PWB with high heat capacity and high heat dissipation property.

It is becoming more and more difficult to desolder on the PWB for large current, of which heat capacity and heat dissipation property are on a rising trend. Sometimes two men operation is required to work on such PWB. One holds soldering iron to melt solder joint of PWB and the other suctions molten solder from the other side of PWB. Now FR-400 with 300 W tremendous power can make it one man operation.

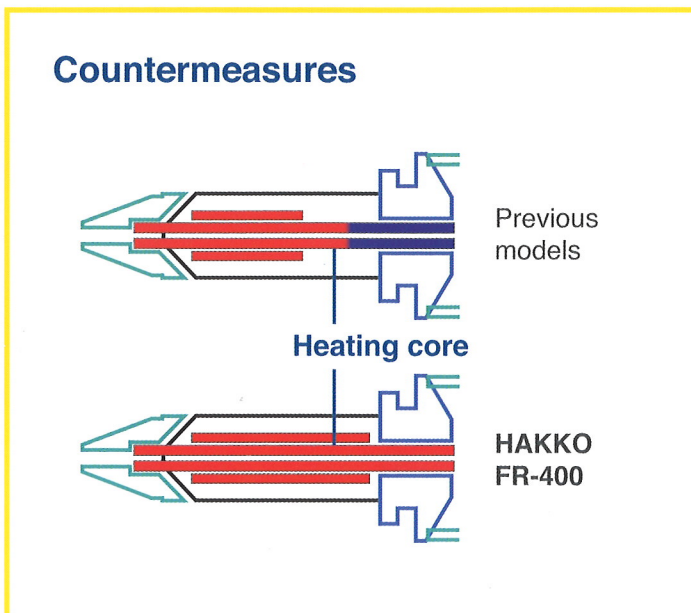


FR-400 makes a big difference in rework process on inverter PWB for automotive device and power conditioner PWB for solar power generator that require high current.



# ■ Secure desoldering, valve function that suctions with high pressure

Suction starts 0.2 seconds after pulling the trigger for instance and high pressure suction to achieve complete desoldering.



# ■ Reduction of solder clogging

## Improvement in heating core

Heating ability for backside of heating core is increased to ensure suctioned solder be carried to filter pipe and avoid solder clogging.

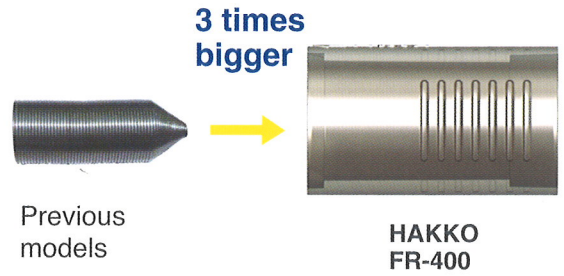
## Featuring ACF (Anti Clogging Function)

ACF ensures suctioned solder be carried to filter pipe by keeping pump running for a second after releasing trigger.

## Improvement in maintainability

### Featuring new filter pipe 3 times larger than the previous model

The new filter pipe is 3 times larger than the previous model and applicable to operation on large components. This is not disposal type and for repeatable use.



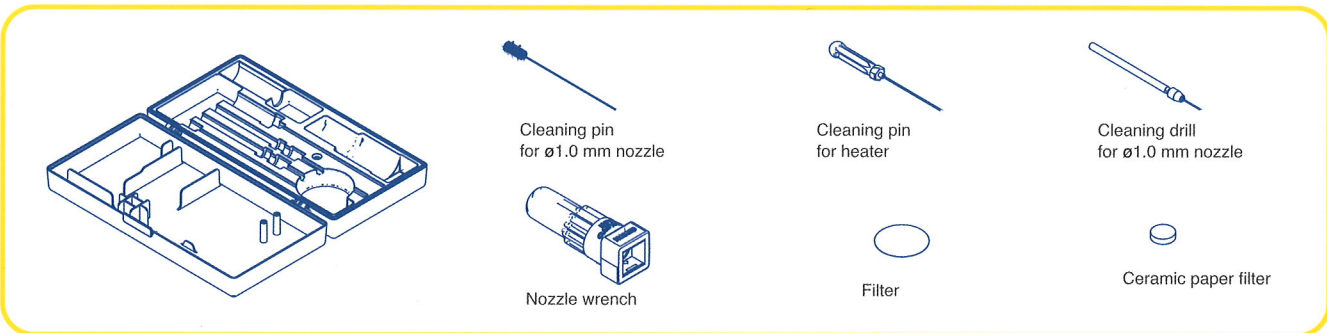
### Easy heater replacement

Easy heater replacement by removing 3 screws on the part of heating core.



### Tool box for maintenance kit

A tool box that contains of maintenance tools such as cleaning pins for nozzle and heating core is provided for standard. The box can be set on the top of the unit for the convenience of use.



### Larger filter and more transparency

When desoldering, flux is also suctioned. Flux can cause degradation of suction performance if it enters inside the pump. To avoid the degradation, filter is attached on the front panel. The new filter is larger than the previous type to enhance greater adsorption property. Also the transparent filter cover makes it easy to check filter condition.



## Featuring a large LCD display

Very easy to see temperature on the large LCD display  
Vacuum indicator to check clogging



Suction with no clogging



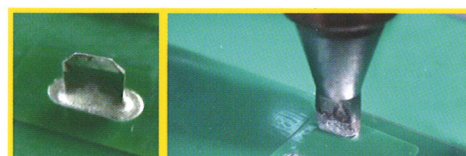
Suction with clogging

## Lineup of nozzles for large components

Nozzles applicable to shapes like 2 mm or larger diameter lead or flat termination are lined up.



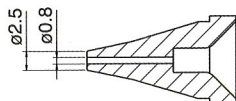
Nozzle in the photo is N60-06



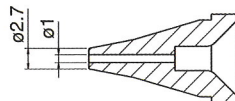
Nozzle in the photo is N60-09

## Replacement nozzles

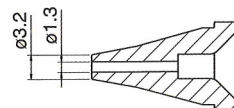
N60-01



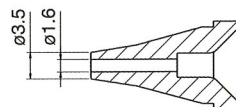
N60-02



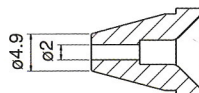
N60-03



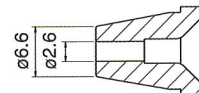
N60-04



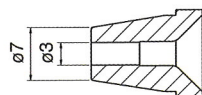
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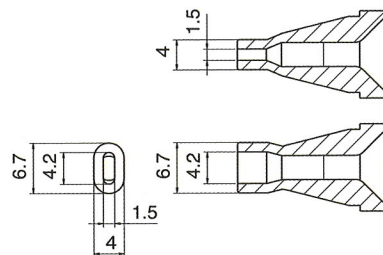
N60-06



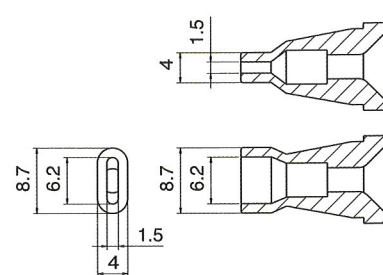
N60-07



N60-08

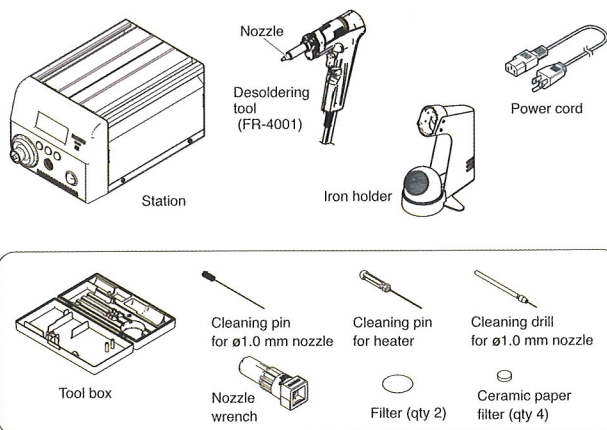


N60-09



## FR-400

### Packing list



Station, Desoldering tool (FR-4001), Power cord, Iron holder (with cleaning wire), Tool box (Cleaning pin for  $\phi 1.0$  mm, Cleaning pin for heater, Cleaning drill for  $\phi 1.0$  mm, Nozzle wrench, Filter [qty 2], Ceramic paper filter [qty 4]), Instruction manual

### Specifications

Power consumption	320 W
Temperature range	350 to 500°C
Temperature stability	$\pm 5^\circ\text{C}$ at idle temperature
<b>Station</b>	
Output voltage	AC 29 V
Vacuum generator	Double cylinder type
Vacuum pressure	80 kPa (600 mmHg)
Suction flow	15 L/min.
Dimensions	160 (W) $\times$ 137 (H) $\times$ 235 (D) mm
Weight	5.7 kg
<b>Desoldering tool</b>	
Power consumption	300 W (29 V)
Nozzle to ground resistance	$< 2 \Omega$
Nozzle to ground potential	$< 2$ mV
Heating element	Composite heater
Standard nozzle	$\phi 1.0$ mm (Part No. N60-02)
Cord length	1.2 m
Total length (without cord)	183 mm (with $\phi 1.0$ mm nozzle)
Weight (without cord)	245 g (with $\phi 1.0$ mm nozzle)

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