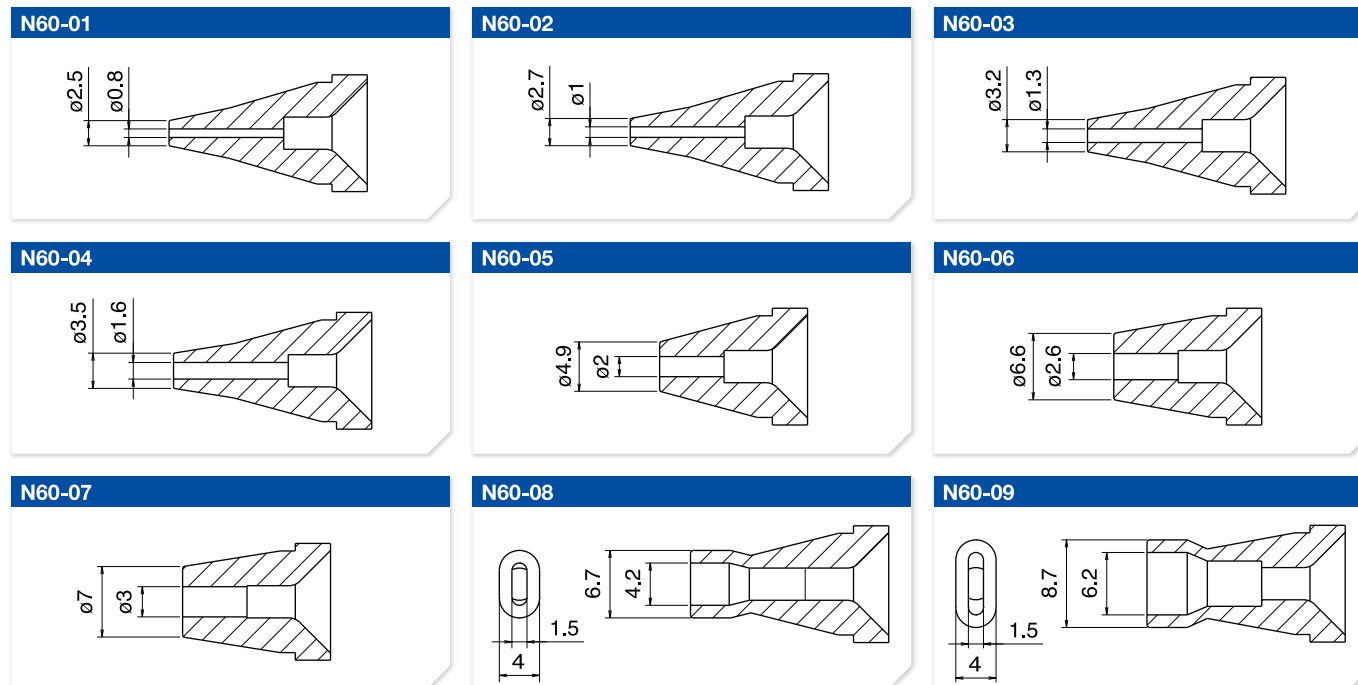


## Replacement nozzles

Unit: mm



## 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	Max. 80 kPa (600 mmHg)
Suction flow	15 L/min.
Dimensions	166 (W) $\times$ 137 (H) $\times$ 264 (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	$< 2 \text{ mV}$
Heating element	Composite heater
Standard nozzle	$\phi 1.0$ mm (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)

**HAKKO**  
HAKKO CORPORATION  
OVERSEAS AFFILIATES

U.S.A.  
AMERICAN HAKKO PRODUCTS, INC.  
28920 AVENUE WILLIAMS VALENCIA, CA 91355, U.S.A.  
TEL: (661) 294-0090 FAX: (661) 294-0096  
Toll Free (800)88-HAKKO  
http://www.hakkousa.com

HEAD OFFICE  
4-5, SHIOKUSA 2-CHOME, NANIWA-KU, OSAKA, 556-0024 JAPAN  
TEL:+81-6-6561-3225 FAX:+81-6-6561-8466  
http://www.hakko.com E-mail:sales@hakko.com

HONG KONG  
HAKKO DEVELOPMENT CO., LTD.  
ROOM 1504, EASTERN HARBOUR CENTRE,  
28 HOI CHAK STREET, QUARRY BAY, HONG KONG.  
TEL: 2811-5588 FAX: 2590-0217  
http://www.hakko.com.hk  
E-mail:info@hakko.com.hk

SINGAPORE  
HAKKO PRODUCTS PTE LTD  
1, GENTING LINK #02-04  
PERFECT ONE, SINGAPORE 349518  
TEL: 6748-2277 FAX: 6744-0033  
http://www.hakko.com.sg  
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Desoldering • Rework

Station Type  
Desoldering Tool

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

# 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.



CA00462EbYa004 2015.12

## ■ 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.

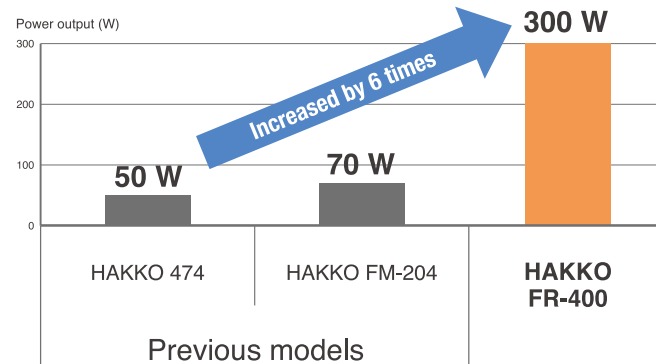
Check out our demonstration.

[http://www.hakko.com/mov\\_e\\_fr400\\_feature1](http://www.hakko.com/mov_e_fr400_feature1)

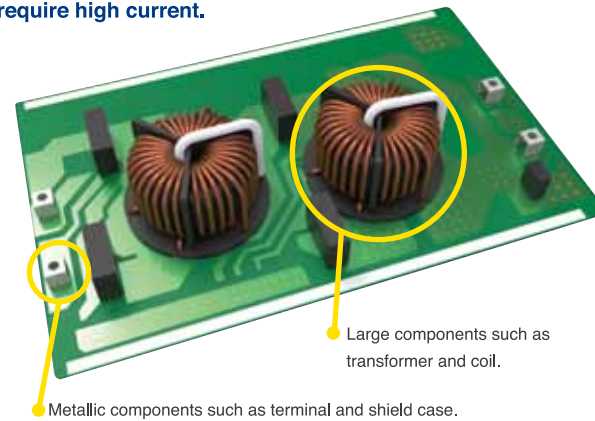


QR Code

### Increased heater power



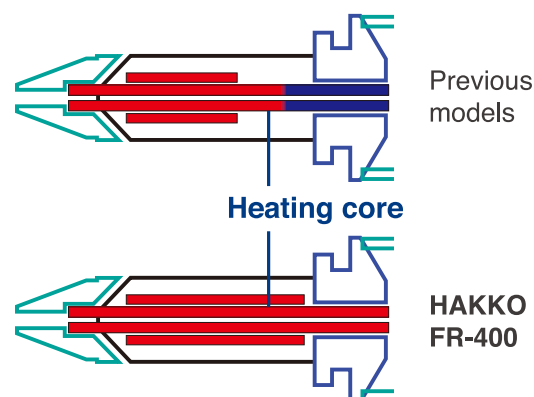
FR-400 makes a big difference in rework process on inverter PWB for automotive device and power conditioner PWB for solar power generator that require high current.



## ■ 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.

### Countermeasures



## ■ 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.

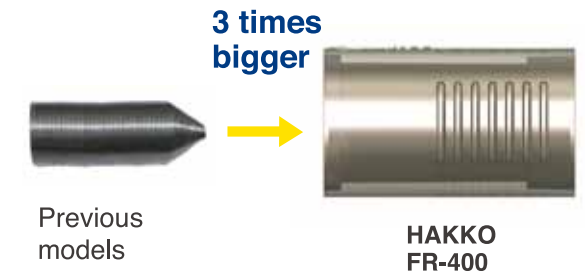
### Featuring ACF (Anti Clogging Function)

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.



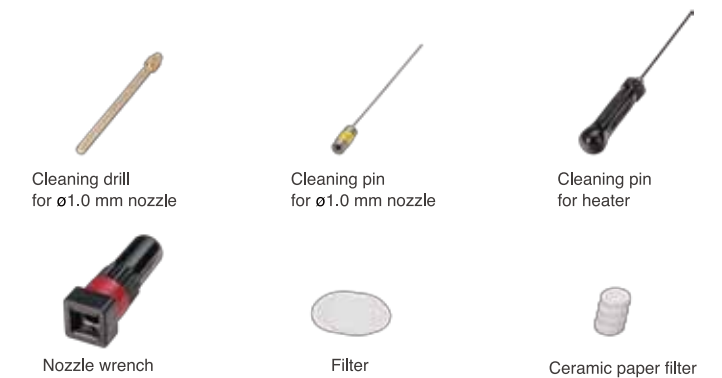
### Easy heater replacement

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