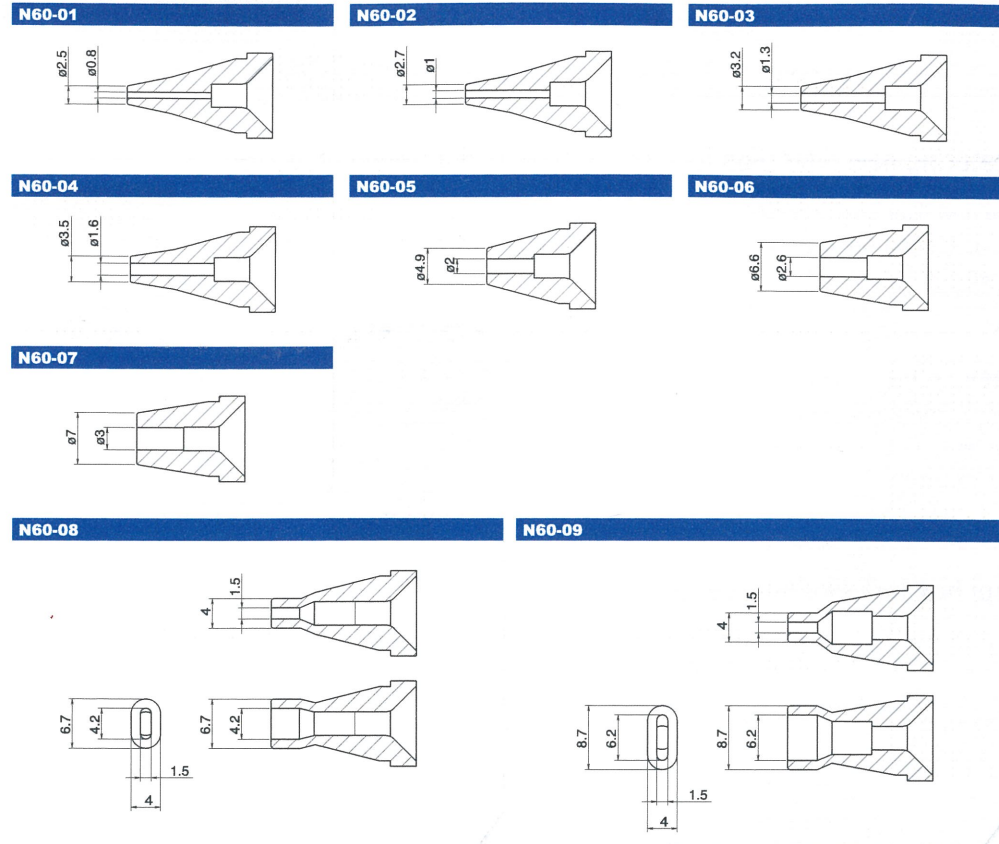
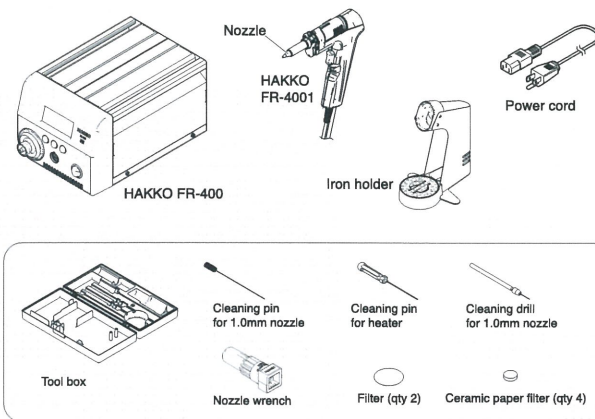


Compatible with N60 series  
Replacement nozzles



## FR-400

Packing list



HAKKO FR-400 Desoldering Tool

Station, Desoldering tool (FR-4001), Power cord, Iron holder, Tool box (Cleaning pin for 1.0mm, Cleaning pin for heater, Cleaning drill for 1.0mm, 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	±5°C at idle temperature
<b>Station</b>	
Output voltage	AC 29V
Vacuum generator	Double cylinder type
Vacuum pressure	80 kPa (600mmHg)
Suction flow	15 L/min.
Dimensions	160(W)×137(H)×235(D)mm
Weight	5.7 kg
<b>Desoldering tool</b>	
Power consumption	300W (29V)
Nozzle to ground resistance	< 2 Ω
Nozzle to ground potential	< 2 mV
Heating element	Composite heater
Standard nozzle	1.0 mm (Part No. N60-02)
Cord length	1.2 m
Total length (without cord)	183 mm (with 1.0mm nozzle)
Weight (without cord)	245 g (with 1.0mm nozzle)

※Measured at the filter case suction port of the station

**HAKKO**

Desoldering • Rework

Station Type  
Desoldering Tool

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

# The Long-Awaited Super Power of 300W! Pioneer the New Desoldering World

Melt and suction solder quickly and securely even on high heat capacity and high heat dissipation property PWB.



**HAKKO**  
HAKKO CORPORATION  
OVERSEAS AFFILIATES

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

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>

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>  
E-mail: sales@hakko.com.sg

Please access to the following for the other Sales affiliates.  
<http://www.hakko.com>

Specifications and design are subject to change without notice. Copyright Hakko Corporation. All right reserved.

CA00462GbYa001 2015.1

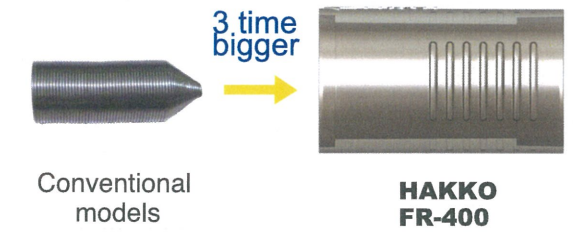
## 300W tremendous power enables nearly impossible desoldering on PWB with high thermal capacity and high thermal dissipation property.

It is becoming more and more difficult to desolder on the PWB for large current of which thermal capacity and thermal dissipation property become larger. 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 300W tremendous power can make it one man operation.

## 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 for operation on large components. This is not disposal type and for repeatable use.



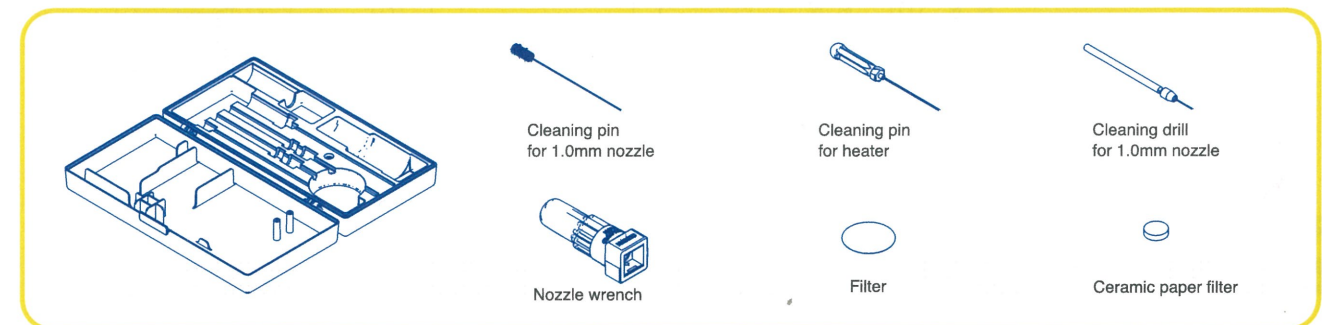
### Easy heater replacement

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 nozzles 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 pump. To avoid the degradation, filter is attached on the front panel. The new filter is larger than the previously to enhance greater adsorption property. Also the transparent filter cover makes it easy to check filter condition.

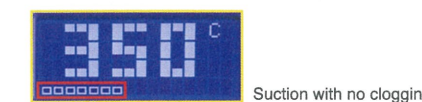


## Featuring a large LCD display

Very easy to see temperature on the large LCD display



### Vacuum indicator to check clogging

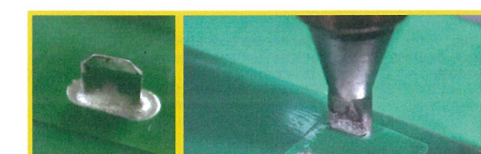


## Lineup of nozzles for large components

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

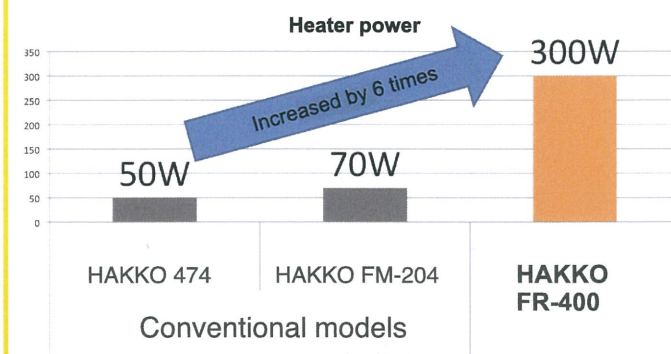


N60-06

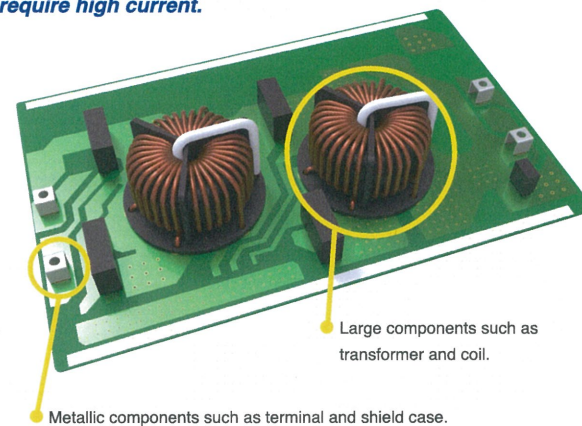


N60-09

### Increased heater power



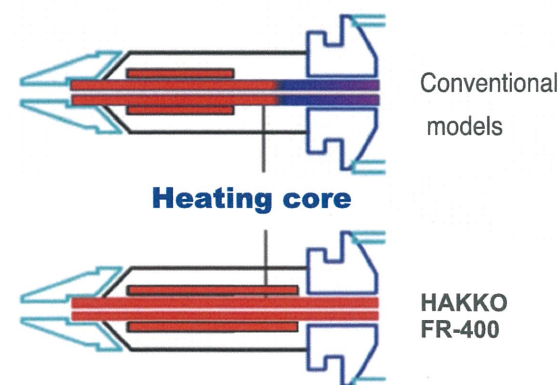
FR-400 makes a big difference in rework process on inverter PWB for automotive device and power conditioner PWB for solar power generator that require high current.



## 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 to 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.