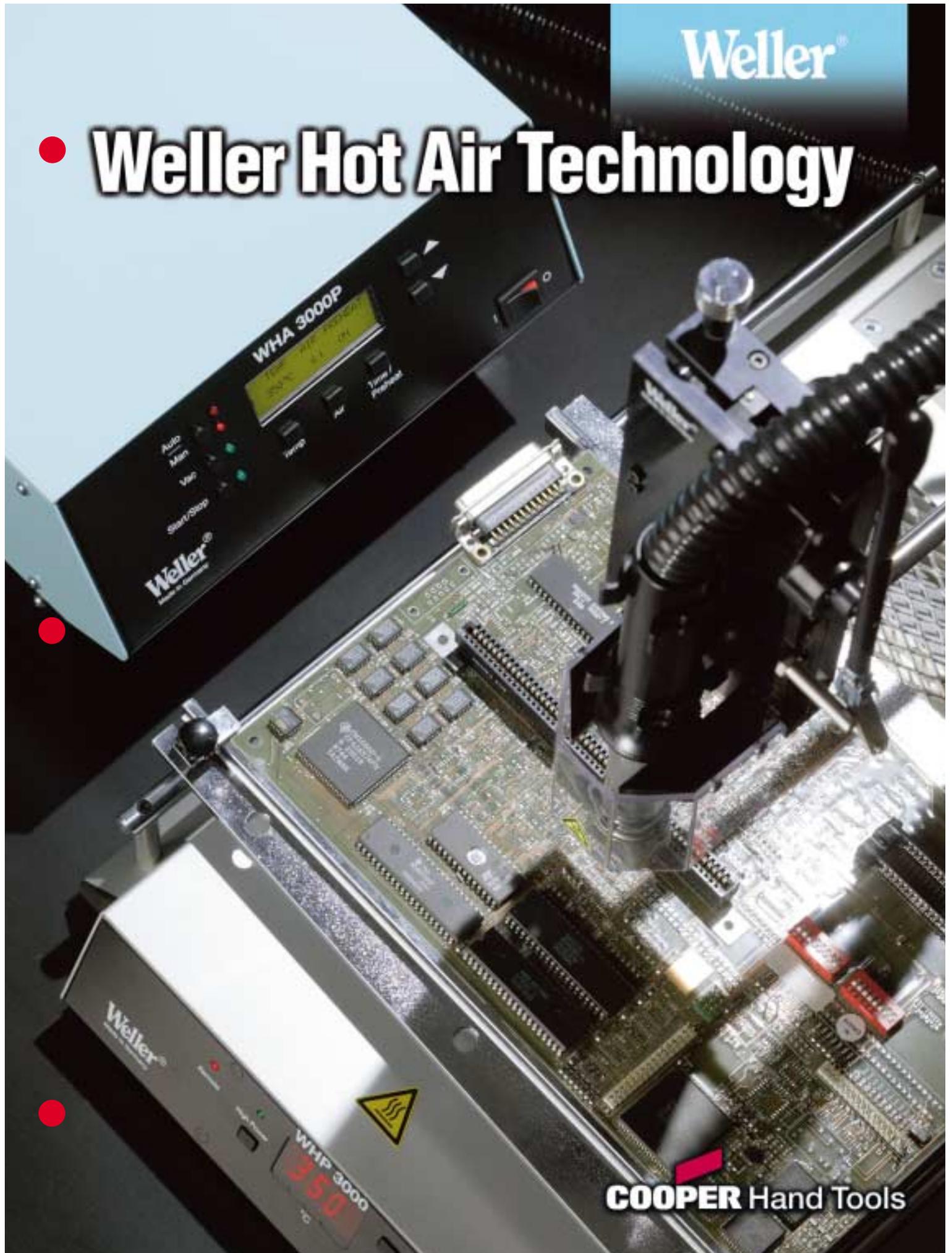# Weller®

Weller Hot Air Technology

WHA 3000P

WHP 3000

COOPER Hand Tools

Hot Air Technology
Equipment overview

The control technology used in Weller hot air equipment guarantees precise and repeatable processes when soldering/desoldering SMD components. This process control is further enhanced by the application of Weller patented nozzle technology.
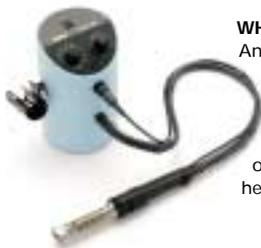
700-W Hot Air Stations

These stations use temperature and volume controlled hot air with Weller patented technology nozzles and the HAP3000 hot air pencil to solder and desolder the larger dual in line and quad pack components.
There are three stations in the range giving users the option of digital control with an integral air supply, digital control with an external air or inert gas supply or analog control with an integral air supply.
A wide range of hot air nozzles type ND and NQ with integral hot plates to heat the component body and types NR and DR without hot plates complete the range.

WHA3000P
Digitally controlled hot air station with an integral air supply and vacuum pick up at the nozzle. For demanding repair operations.

WHA3000V
Digitally controlled hot air station for use with a compressed air or inert gas supply and vacuum pick up at the nozzle.

WHA300
Analog controlled hot air station with an integral air supply without vacuum pick up. This station is suited to less complex repair operations and other heating processes such as heat shrinking.

100-W Hot Air Stations

This range of four stations is suited to reworking smaller SMD components. Like the 700 W stations the type D and type Q nozzles do have an integral hot plate but other types do not. These stations do not have a nozzle vacuum pick up therefore; it is necessary to use either manual or vacuum tweezers to remove the component.

Of the four stations in the range, two have internal electrically driven pumps, and two are operated from either a compressed air or inert gas supply.

WRS3000S
Three channel digitally controlled repair station with an integral pump to provide variable volume airflow and fixed value vacuum. The station is supplied with an 80 watt soldering pencil, 80 watt through hole desoldering pencil and a 100 watt hot air pencil.

WRS1002
A single channel digitally controlled repair station with an integral pump to provide variable volume air flow and fixed value vacuum. The station is supplied with a 100 watt hot air pencil, but all other Weller tools of compatible rating can be used.

WAD101
A single channel digitally controlled hot air station for use with compressed air or inert gas. The station is supplied with a 100 watt hot air pencil, but all other Weller tools of compatible rating, apart from the through hole desoldering pencil, can be used.

WRS2000
A single channel, analog controlled repair station for use with compressed air or inert gas. The station is supplied with a 100 watt hot air pencil, vacuum pick up and solder paste/adhesive dispenser, all able to be operated simultaneously.

700W

Non destructive desoldering
with patented
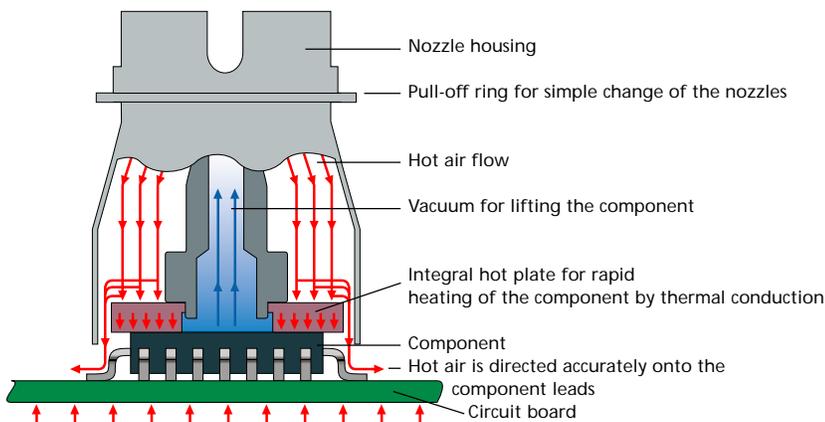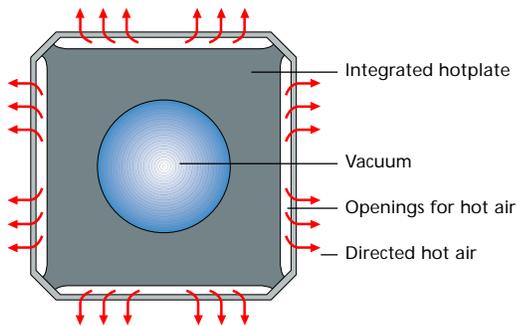## Weller nozzle technology

Weller®

Whether you are replacing SMD components with external solder connections or other types of components such as SMT bases or PGAs , Weller provides you with the solution to your rework problems.

When it is necessary to remove SMD components from what is frequently a very expensive circuit board, the need to prevent damage to the board is the number one priority. Since the component targeted for rework is defective, consideration for damage to the component is secondary. Weller patented nozzle technology uses conducted heat from the integral hot plate in the nozzle to heat the component up to a temperature just below the melting point of the solder joint. Hot air is directed through precisely configured slots around the edges of the nozzle onto the legs of the component to finally melt the solder joint and allow removal of the component. By this means delamination of the board is effectively prevented.

The vacuum lift plate will break the vacuum bond if the removal of the component is attempted before the joint has melted, preventing further damage to the board in the component removal phase.
Use of this combination of conducted heat and directed hot air makes this technology particularly suitable for lead free solders with higher melting points.

Provided the physical dimensions of the components are the same, the same nozzle can be used to desolder both QFP and PLCC devices. Even glued components can be removed due to the thermal degradation of the bond.

- Integrated hotplate
- Vacuum
- Openings for hot air
- Directed hot air

- Nozzle housing
- Pull-off ring for simple change of the nozzles
- Hot air flow
- Vacuum for lifting the component
- Integral hot plate for rapid heating of the component by thermal conduction
- Component
- Hot air is directed accurately onto the component leads
- Circuit board

Option: Bottom heating by the Heating plate **WHP3000**. The pc board is pre-heated slowly and evenly to the optimum working temperature
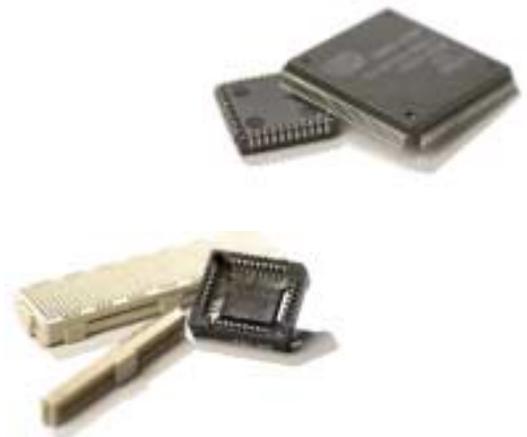
WHA3000 Rework System
The versatile system for demanding work

WHA3000P
700 watt hot air station with patented Weller nozzle technology for maximum process control and user friendly operation. The powerful variable speed controlled turbine generates an air volume of upto 50 liters/min.
An ion trap so that ESD safe hot air is directed at the component.
Memory space to store upto 10 thermal profiles to ensure process repeatability

Alternatively:
WHA3000V
700 watt hot air station similar in all respects to the WHA3000P but operating from an external compressed air or inert gas supply.

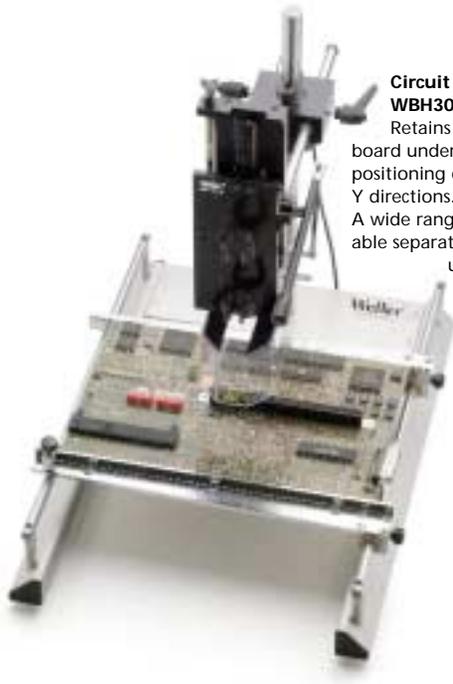**Hot air nozzle stand (option)**
Provides storage for up to 6 hot air nozzles, and allows quick and easy nozzle changes, even when hot.

The components of the
WHA3000P Set

**Circuit board holder
WBH3000S**
Retains and secures the circuit board under repair and allows positioning of the board in X and Y directions.
A wide range of accessories available separately permits boards upto a max size of 310 mm x 320 mm both single and double sided to be accommodated in a perfectly flat condition.

The WBH3000S incorporates a pivoting stand to mount the HAP3000 hot air pencil. This stand allows the HAP3000 to be raised and lowered onto the component under repair. An added safety feature is the Stop + Go function, which will automatically switch the hot air pencil into a standby mode if the stand is pivoted to the side of the board holder without first switching off the hot air.

The pre-heating plate WHP3000 (supplied separately) can be fitted under the board holder to provide background heating.
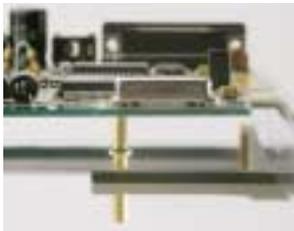
Technical data WBH3000S:
Dimensions: 17.3" x 12.6" x 17.6"
(H x W x L) (440 x 320 x 446mm)

Accessories for circuit board holder WBH3000 / WBH3000S:

Adjustable circuit board stop.
Order No. 0058754873

Support for large-dimensioned circuit boards.
Order No. 0058755745

Circuit board clamp.
Order No. 0058755741

Clamping set for irregular shaped circuit boards (mobile phones, video/digital camera boards etc.).
Order No. 0058754924

**Circuit board holder
WBH3000**
Same as the WBH3000S but without pivoting stand. Technical data WBH3000.
Dimensions:
100 x 320 x 446
(H x W x L mm)

Heating plate WHP3000

The WHP3000 increases the flexibility of the WHA systems. It provides underside heating to the board under repair, reducing the heat requirement from the hot air pencil and therefore minimizing the risk of thermal damage to the board as well as speeding up the repair process. The heated surface comprises 3 high temperature ceramic elements that ensure fast and efficient heating.

5

700W

WHA3000V
Digital 700 W hot air station for operation with compressed air or inert gas

Function and equipment corresponds to WHA3000P

Connections
Following connections are on the rear side:
• RS232 for connecting the pre-heating plate or a PC.
• Connection for manual control panel or foot switch.

Technical data WHA3000V:

Dimensions:	9.5'' x 10.6'' x 4.0''
(W x L x H)	(240 x 270 x 100mm)
Mains voltage:	120 V
Max. heat power:	700 W
Temperature range:	150°F – 999°F
	(50°C – 550 °C)
Control accuracy:	± 77°F
	(± 25°C)
Air volume:	5 – 50 l/min.
Max. vacuum:	-0.6 bar
Compressed air	
supply / Inert gas (N$_2$):	4 – 6 bar

Air generation
The airflow rate is controlled digitally by means of a proportional valve. Alternatively, an inert gas, such as nitrogen could be used in place of compressed air for more demanding tasks.

Connections
Compressed air / inert gas 4 – 6 bar.

Temperature check
Connection of the temperature sensor (available as an accessory) for highly accurate process monitoring.

ESD safe
Housing and iron are ESD safe.

A digital electronic control system guarantees precise temperature control and provides other functions, such as Auto off and stand by temperature. Set and actual temperatures are displayed digitally.
Two heated zones can be selected The temperature of a specific point on the board under repair can be monitored and controlled by means of an optional external sensor. If used the temperature display will show the actual value of the temperature of the board at the point of contact, not the temperature of the hot plate elements.

An RS232 interface connection from either of the WHA stations can be used to enable the hot plate to be used as an underside heater in a multilevel process sequence. If this option is required then we recommend that the WBH3000 board holder is used. The pre-heating plate is designed to sit between the side supports of the board holder.

Technical data WHP3000:

Dimensions:	254 x 395 x 70
	(B x L x H)
Heatable surface:	120 x 190 mm
Mains voltage:	120 V
Power:	small heating zone 200 W
	large heating zone 600 W
Temperature range:	122°F – 752°F
	(50°C – 400°C)
Protection class:	1

WHA3000P
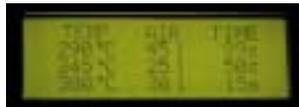## Digital 700 W hot air station with built in turbine

The WHA3000P will perform demanding repair tasks on circuit boards with complex fine pitch surface mounted components.
The advanced control technology coupled with user-friendly operation, guarantees process control. The sophisticated automatic operation mode guarantees repeatability of the process and increases productivity and quality.
Extensive range accessories compliment the machine to promote flexibility.

Both the WHA3000P and WHA3000V include a two-stage foot switch. Stage 1 activates the hot air flow, stage 2 activates the vacuum pickup.

Stop and Go Hot Air Tool Holder
The tool holder AKT30 is a stable support for the hot air pencil. When the pencil is replaced in the support the airflow rate is automatically switched to the standby mode, at a minimal flow rate, sufficient to maintain the nozzle at its operating temperature. Removal of the pencil will switch the airflow back to its selected flow rate.

LCD Display
High contrast LCD characters clearly display the operating parameters.

Manual operation
Operating parameters are selected by the operator.

Automatic mode
A three-stage temperature/time profile controlling air temperature, air volume and process time can be stored in the machine memory to carry out repeatable repair operations. The WHP3000 hot plate can also be controlled in this mode. Up to 10 individual programs can be stored in the machines memory.

Setting
Up down push buttons set the operating parameters of the air temperature, air volume and process time. LED indicators highlight the operating mode, start/ stop and vacuum functions.

Hot air pencil
The ergonomic and powerful hot air pencil (700 W) together with the extensive range of patented technology nozzles (see pages 11-13) make this tool very versatile. Hot air nozzles are secured to the tool by a clamping screw. A vacuum plate will lift the component from the board after reflow.
A nozzle removal tool supplied with the machine enables rapid removal and replacement of nozzles, even when hot.

ESD safe
The hot air is delivered through an ion trap to remove any charge and the tool handle and tubing are manufactured from static dissipative materials.

Technical data WHA3000P:

Dimensions:	9.5" x 10.6" x 6.7"
(W x L x H)	(240 x 270 x 170mm)
Mains voltage:	120 V
Max. heat power:	700 W
Temperature range:	122°F – 1022°F
	(50°C – 550°C)
Control accuracy:	± 77°F
	(± 25 °C)
Air volume:	5 – 50 l/min.
Vacuum:	- 0.6 bar
Protection class 1 (control unit and hot air iron hard grounded)	

"ESD" Safe

ESD safe
Both the housing and pencil are ESD safe.

Connections
The rear of the machine has an RS232 interface for connection to the WHP3000 pre-heat plate or a PC for remote control. Socket for manual control or footpedal.

Internal pump
A powerful maintenance free rotary pump generates the machine airflow, variable up to 50 l/min.

External sensor
A machine-mounted socket is fitted to receive a type K thermocouple; this would be used to record the temperature of a specific position on the circuit board and allow precise process monitoring.

Accessories for WHA3000P and WHA3000V

Manual control panel
The hot air and vacuum can be activated via the manual control panel if, for example, the machine cannot be reached conveniently. For connection to WHA3000P / WHA3000V.
Order No. 0058736780

Nozzle change tool
This tool is required to change the nozzles when they are hot. It is part of the equipment supplied with the hot air stations WHA3000P / WHA3000V and WHA300.
Order No. 0051504999

External sensor
Type K. For precise "on-the-spot" temperature measurement. For connection to the hot air stations WHA3000P or WHA3000V or to the pre-heating plate WHP3000.
Order No. ⌀ 0.25 mm: 0058754951
Order No. ⌀ 0.50 mm: 0053119099

Stand for hot air nozzles

The stand has space for up to six hot air nozzles and facilitates nozzle change even when parts are hot. The nozzle is secured in the holder by means of a clamping device. When the clamping screw is loosened, nozzle and iron can be separated easily. The nozzle remains in the holder. The hot air iron can now be pushed onto another nozzle in the holder; simply tighten the clamping screw and the nozzle change is complete. The risk of burning hands or material is minimized.
Order No. 0051504899

WBH3000S
Circuit board holder with a pivoting stand for the HAP3000 hot air pencil. Circuit boards upto 310 mm x 320 mm can be accommodated.
The circuit board holder ensures that the hot air pencil is vertical to the printed circuit board under repair and the pivoting stand allows the HAP3000 hot air pencil to be raised and lowered precisely onto the component being reworked.

WHP3000
The IR Heating plate has a total heated area of 120 mm x 190 mm with 3 ceramic elements. The plate is used to preheat the circuit board under repair, to reduce the possibility of thermal damage
Set temperatures and actual temperatures are digitally displayed.
An external sensor can be connected to display actual temperatures at specific areas of the circuit under repair.
The hot plate can be controlled from its own internal control system or integrated into the control system of the WHA3000P/V.
When used with the WHA3000P/V the hot plate sits beneath the WBH3000S board holder.

WHA3000PS Set consists of:
- WHA3000P 700 Watt hot air station with built in pump
- WBH3000S circuit board holder with pivoting stand
- WHP3000 Heating plate

WHA300

700-W Hot air station with built in turbine, without vacuum

The WHA300 is an entry level hot air station for less complex repair tasks or other hot air applications such as heat shrinking etc. It has an internal variable speed rotary pump to provide its air sup- **ply and a variable temperature electronically controlled hot air pencil. The station is not equipped with a vacuum facility to remove components after reflow or an ion trap.**

Technical data WHA300:

Dimensions:	5.1" x 8.7"
(D x H)	(130 x 220mm)
Current supply:	120 V, 60 Hz
Max. heat power:	700 W
Air volume:	10 – 50 l/min.
Temperature range:	122°F – 1022°F
	(50°C – 550°C)

Accessories:

• Foot switch	0051312099
• Stand for hot air nozzles	0051504899

Nozzle range: see pages 11 – 13
Nozzles sold separately

Setting
Rotary potentiometers to set air temperature and volume.
LED to indicate temperature condition (on - under temperature, flashing – at temperature, off - over temperature).

Tool support
Tool support attached to station

Hot air pencil
The ergonomic and powerful hot air pencil (700 W) with finger switch control, together with the extensive range of patented technology nozzles (see pages 11-13) make this tool very versatile. Hot air nozzles are secured to the tool by a clamping screw.

ESD safe
The tool handle and tubing are manufactured from static dissipative materials.

Hot air nozzles for
WHA3000P, WHA3000V, WHA300

Nozzle selection

To select a suitable nozzle for your application, observe the following:

1. The ND and NQ nozzles have an integrated pre-heating plate for pre-heating components by means of contact heat. Air outlet slots are located around the plate with a width of approx. 1 mm for the hot air.

2. The nozzle dimensions named in the brochure correspond to inside dimensions. The dimensions of the integrated pre-heating plate are calculated by subtracting the air outlet slot dimension from the nozzle dimensions.

3. Ensure that the component is not larger than the integrated pre-heating plate to avoid obstruction of the air outlet.

4. The type D (Dual) nozzles have air outlet slots on two opposing sides. Dimension designates the lengths of the heated side.

5. The type Q (Quad) nozzles have air outlet slots on all four sides.
   As the transfer of heat for the reflow process is mainly by means of contact heat of the nozzle plate, the hot air nozzle must "fit" exactly. A tolerance of a few 0.1 mm during nozzle selection is perfectly acceptable and does not have a negative influence on desoldering quality.
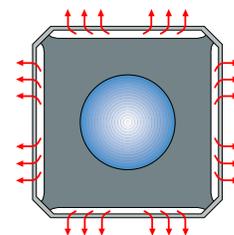
	Model	Dimensions	Components	Pitch/Grid	Order No.
	Round nozzles (type NR)				
	NR 02	∅ 1,7 x 4,5° bent (without vacuum)			0058736882
	NR 04	∅ 2,5 (without vacuum)			0058736881
	NR 05	∅ 4 mm (without vacuum)	SO 8	1,27 mm	0058736867
	NR 10	∅ 7 mm (without vacuum)			0058736870
	DR 05	2 x ∅ 2,5 x 9,5 mm (without vacuum)			0058736883

Hot air nozzles for
WHA3000P, WHA3000V, WHA300

Model	Dimensions X x Y	Components	Pitch/Grid	Order No.
Two sides heated (type ND)				
ND 05	10,7 x 10,7 mm	SO 14 SO 16	1,27 mm 1,27 mm	0058736843
ND 10	14,0 x 10,0 mm	SOL 14 SOL 16 SOL 16-J SOL 20 SOL-J 20	1,27 mm 1,27 mm 1,27 mm 1,27 mm 1,27 mm	0058736842
ND 15	19,0 x 12,0 mm	SOL 24 SOL-J 24 SOL 28 SOL-J 28	1,27 mm 1,27 mm 1,27 mm 1,27 mm	0058736841
ND 20	21,5 x 14,8 mm	SOL 32	1,27 mm	0058736840
All 4 sides heated (type NQ)				
NQ 05	10,7 x 10,7 mm	PLCC 20 LCCC 14 LCCC 24 C-QFP 24 QFP 84	1,27 mm 1,27 mm 1,27 mm 1,27 mm 0,50 mm)	0058736839
NQ 10	14,8 x 14,8 mm	PLCC 28 QFP 44 LCCC 28 QFP 48	1,27 mm 0,80 mm 1,27 mm 0,75 mm	0058736818
NQ 15	14,5 x 10,0 mm	PLCC 32R		0058736838
NQ 20	15,5 x 13,0 mm			0058736837
NQ 25	18,0 x 18,0 mm	PLCC 44 CLCC 44 PQFP 44 PQFP 60 QFP 64 QFP 60 TSOP 100 QFP 100	1,27 mm 1,27 mm 0,80 mm 0,80 mm 0,80 mm 0,65 mm 0,50 mm 0,50 mm	0058736814

	Model	Dimensions X x Y	Components	Pitch/Grid	Order No.
	NQ 30	17,5 x 23,5 mm	QFP 56	1,0 mm	0058750721
			QFP 60	1,0 mm	
			QFP 64	1,0 mm	
			QFP 80	0,8 mm	
			QFP 88	0,65 mm	
			QFP 100		
	NQ 35	20,5 x 20,5 mm	PLCC 52	1,27 mm	0058736807
			BQFP 84	0,65 mm	
	SK 460/A	24,0 x 12,0 mm	Q-CPM-9401		0058736880
	NQ 40	26,0 x 26,0 mm	C-QFP 64	1,27 mm	0058736804
			PLCC 68	1,27 mm	
			CLCC 68	1,27 mm	
	NQ 45	31,3 x 31,3 mm	CLCC 84	1,27 mm	0058736833
			PLCC 84	1,27 mm	
			QFP 100	0,80 mm	
			QFP 120	0,80 mm	
			QFP 128	0,80 mm	
			QFP 132	0,65 mm	
			QFP 136	0,65 mm	
			QFP 144	0,65 mm	
			QFP 160	0,65 mm	
			QFP 120	0,35 mm	
			C-QFP 80	1,27 mm	
			BQFP 164	0,65 mm	
			BQFP 132	0,65 mm	
			MQUAD 208L	0,50 mm	
			MQUAD 184L	0,65 mm	
			MQUAD 144L	0,50 mm	
			QFP 208	0,50 mm	
	NQ 50	36,0 x 36,0 mm	QFP 240	0,50 mm	0058736891
	NQ 55	43,0 x 43,0 mm	CQFP 304	0,50 mm	0058736890

WRS3000S
Multi-digital repair station with 3 channels and internal pump

The WRS3000S is a 3 channel, microprocessor controlled rework station, equipped with hot air pencil, soldering iron and desoldering iron, for use with surface mounted and conventional components. All tools can be operated simultaneously and independently. Additionally any other tool of sufficient rating from the Weller range can be controlled from this station up to a max loading of 150 watts. The station can identify which tools are in use and calibrate the individual outputs for that tool.

A timer variable up to 99 minutes can be programmed to initiate a set back facility.

A mechanical key operated lock can be used to physically lock all functions.

Technical data WRS3000S

Dimensions:	9.5" x 10.6" x 4.25"
(W x L x H)	(240 x 270 x 105mm)
Mains voltage:	120 V
Power input:	310 W
Air volume:	5 – 10 l/min.
Max. vacuum:	– 0.7 bar
Temperature	
range:	Hot air 150°F – 999°F
	(50°C – 550°C)
	Soldering/desoldering
	tool 150°F – 850°F
	(50°C – 450°C)
Accuracy:	Hot air ± 86°F (30°C)
	Soldering/desoldering
	tool ± 2% of end
	value

Consists of:
- Power unit
- Hot air pencil HAP1 with support KH27
- Desoldering iron DSV80 with support AK20
- Soldering pencil WSP80 with support WPH80

Digital display
Shows set and actual temperature values and air volume.
Analog vacuum gauge to monitor desolder function.

Parameter setting
Push buttons

LED displays
Green LED to show condition of temperature.
Red LED to indicate which channel is displayed on the digital display.

Pump
The internal pump is powerful and quiet. It generates a maximum air flow rate of 10l / min.

Hot air
Connection for HAP1 hot air pencil.

Vacuum
Connection for DSV80 desoldering iron.

"ESD" Safe

ESD safe
The housing and all tool handles, air and vacuum pipes, and leads are manufactured from static dissipative materials. The hot air is passed through an ion trap to ensure ESD safe air.

WRS1002
Multi-digital single channel hot air station with internal pump

Weller®

The **WRS1002 is a single channel microprocessor controlled hot air station equipped with a HAP 1 hot air pencil for use on circuits using smaller surface mounted components. The station has a vacuum facility allowing use as a conventional through hole desoldering station by the addition of desoldering iron, available as an accessory. The station can also drive all other Weller tools of sufficient rating up to a maximum rating of 150 watts.**

The station is able to identify the tool in use and calibrates itself automatically for the tool in use.

Additional features such as temperature set back, temperature offset and temperature lock, can be programmed into the unit by the WCB1 (available as an accessory).

Technical data WRS1002:

Dimensions:	9.5" x 10.6" x 4.25"
(W x L x H)	(240 x 270 x 105mm)
Mains voltage:	120 V
Power input:	175 W
Air volume:	5 – 10 l/min.
Vacuum: max.	– 0.7 bar
Temperature range:	
hot air	150°F – 999°F
	(50°C – 550°C)
Accuracy:	± 86°F (30°C)

Consists of:
• Power unit
• Hot air pencil HAP1 with support KH27

Accessories:
• WCB1 calibration unit for following functions:
  - LOCK = simple locking of the temperature
  - WINDOW = locking of a temperature range
  - SET-BACK = time-specified temperature decrease
  - °F / °C = display in Fahrenheit or Celsius
  - OFFSET = calibration of the soldering tip temperature
  - CAL = new calibration of station and automatic resetting of parameters to delivery status
  - TEMP = integrated temperature measuring and RS 232 interface

Order No.   0053118299

Pump
The internal pump is powerful and quiet. It generates a maximum air volume of 10 L / min.

Digital display
Displays set and actual temperatures and air volume.

Hot air
Connection for hot air pencil HAP1.

Vacuum
Vacuum connection with easy-to-change filter.

ESD safe
The air is passed through an ion trap to ensure charge free delivery.

Precise
Lightweight but powerful (100 Watt) hot air pencil with a wide range of nozzles see pages 18 / 19.

WAD101

Multi purpose single channel hot air station for operation from compressed air or inert gas

The WAD101 is a microprocessor controlled hot air station equipped with a HAP1 hot air pencil for use on circuits using small surface mounted components. It uses compressed air or gas from an external source, the delivery volume controlled manually from a pressure regulator. The unit's flexibility is

further increased by its ability to use all other Weller tools of sufficient rating (except vacuum desoldering tools) upto a max rating of 80 watts. The station can identify which tool is in use and automatically calibrate itself for that tool.

Technical data WAD101:

Dimensions:	6.5" x 5.3" x 4.0"
(W x L x H)	(166 x 134 x 101mm)
Mains voltage:	120 V
Power input:	105 W
Air volume:	5 – 10 l/min
Vacuum:	–
Temperature range:	
hot air	150°F – 999°F
	(50°C – 550°C)
Accuracy:	± 86°F (30°C)
Protection class:	1 and 3
	(control unit and
	hot air iron hard
	grounded)

Consists of:
• Power unit
• Hot air pencil HAP1 with support KH27

Display
Digital display shows set and actual temperatures. Temperature setting by Up – Down push buttons.

ESD safe
Housing and hot air pencil are ESD safe.

Hot air
Manual control of air volume.

ESD safe
The hot air is passed through an ion trap to ensure charge free delivery.

Precise
Lightweight but powerful (100 Watt) hot air pencil with a wide range of nozzles see pages 18 / 19.

100 W

WRS2000
Multi-function single channel hot air station with dispenser and vacuum pick-up

The WRS2000 is a single channel analog controlled rework station equipped with a HAP1 hot air pencil, Erem 3000 vacuum pick up and a dispenser. It is driven from an external compressed air or inert gas source. The WRS2000 is therefore able to apply solder paste, place and solder or desolder

components. Additionally, all Weller tools of sufficient rating up to a maximum rating of 80 watts can be driven by the station.
Operation is by a foot pedal to operate the hot air pencil and a hand control unit operating the vacuum pick up and dispensing functions.

Technical data WRS2000:

Dimensions:	9.5" x 10.6" x 4.25"
(W x L x H)	(240 x 270 x 105mm)
Mains voltage:	120 V
Power input:	130 W
Air volume:	5 – 10 l/min.
Vacuum:	max. – 0.7 bar
Temperature range:	
hot air	150°F – 550°F
	(50°C – 288°C)
Accuracy:	± 86°F (30°C)
Protection class:	1 and 3 (control unit and hot air iron hard grounded)

Consists of:
• Power unit
• Hot air pencil HAP1 with support KH27
• Dispenser
• Erem 3000 vacuum pipette
• Combination rest for dispenser and vacuum pipette
• Foot switch
• Manual control panel
Order No. 0053308299

Easy to use
Parameter setting by rotary potentiometers against easy read scales.

ESD safe
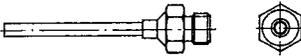Housing and hot air pencil are ESD safe.

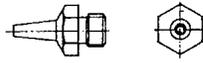**Compressed air**
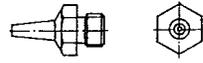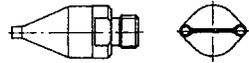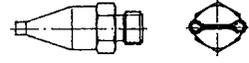The internal venturi runs on oil-free, dry compressed air or with inert gas (nitrogen).

Dispenser
Dispenser for soldering paste, flux gel or adhesive.

ESD safe
The hot air is passed through an ion trap to ensure charge free delivery.

Vacuum
Erem 3000 vacuum pick-up for supporting and positioning components.

Hot air nozzles for HAP1
WRS3000S, WRS1002, WAD101

		Model	Dimensions	Components	Description	Order No.
		Round nozzles				
		F06	12,0 x 1,5 mm		flat nozzle	0058727772
		F04	10,5 x 1,5 mm		flat nozzle	0058727773
		F02	8,0 x 1,5 mm		flat nozzle	0058727774
		R10	Δ 2,0 mm		round nozzle	0058727787
		R08	Δ 2,0 mm		round nozzle, bent	0058727786
		R06	Δ 3,0 mm		round nozzle	0058727822
		R04	Δ 1,2 mm		round nozzle	0058727821
		R02	Δ 0,8 mm		round nozzle	0058727823
		FD4	Δ 1,5 x 10,0 mm		dual nozzle	0058727775
		FD2	Δ 1,5 x 8,0 mm		dual nozzle	0058727776
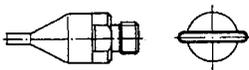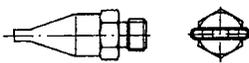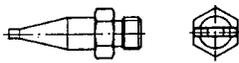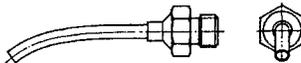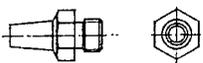
Weller®

Model	Dimensions X x Y	Components	Description	Order No.
Two sides heated (type D)				
D10	18,0 x 10,0 mm	SO 28	hot air nozzle with hotplate	0058727784
D08	15,0 x 10,0 mm		hot air nozzle with hotplate	0058727781
D06	13,0 x 10,0 mm		hot air nozzle with hotplate	0058727782
D04	10,5 x 10,5 mm		hot air nozzle with hotplate	0058727779
All 4 sides heated (type D)				
Q08	12,5 x 15,0 mm		hot air nozzle with hotplate	0058727783
Q06	15,0 x 10,0 mm		hot air nozzle	0058727780
Q04	6,0 x 9,0 mm		hot air nozzle	0058727778
Q02	6,0 x 6,5 mm		hot air nozzle	0058727777

700 W Hot air stations

WHA3000P

Contains:
- WHA3000P 700 W Hot air station with built-in turbine
- HAP3 Hot air pencil
- 2-Stage foot switch (not shown)
- NQ30 Hot air nozzle
- AKT30 Stop and go stand
- Nozzle change tool
- WHA Control Software

WHA3000V

Contains:
- WHA 3000V 700-W hot air station for operation with compressed air or nitrogen
- HAP3 Hot air pencil
- 2-Stage foot switch (not shown)
- NQ30 Hot air nozzle
- AKT30 Stop and go stand
- Nozzle change tool
- WHA Control Software

WHA300

Contains:
- WHA300 700-W Hot air station with built-in turbine and integrated safety rest
- HAP Hot air iron
- Nozzle sold separately

100 W Hot air stations

WRS3000S

Contains:
- Power unit
- Hot air pencil HAP1
- Support KH27
- Hot air nozzle R04
- Hot air nozzle R06
- Soldering pencil WSP80
- Support WPH80
- Soldering tip LTB
- Desoldering iron DSV80
- Support AK20
- Suction nozzle DS112
- Cleaning and nozzle change tool
- Glass tube for desoldering iron (spare)

WRS1002

Contains:
- Power unit WMD1S
- Hot air pencil HAP1
- Support KH27
- Hot air nozzle R04
- Hot air nozzle R06
- Cleaning and nozzle change tool

WAD101

Contains:
- Power unit
- Hot air pencil HAP1
- Support KH27
- Hot air nozzle R04
- Hot air nozzle R06
- Cleaning and nozzle change tool

WRS2000

Contains:
- Power unit
- Hot air pencil HAP1
- Support KH27
- Hot air nozzle R04
- Hot air nozzle R06
- Cleaning and nozzle change tool
- Dispenser
- Erem 3000 vacuum pick-up
- Combination support for dispenser and vacuum pick-up
- Foot switch
- Manual control panel

Order No. 0053308299

Cooper Hand Tools
P.O. Box 728
Apex, NC 27502-0728

Northeast
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    Fax: 800-854-5139
Midwest
    Phone: 919-362-7542
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