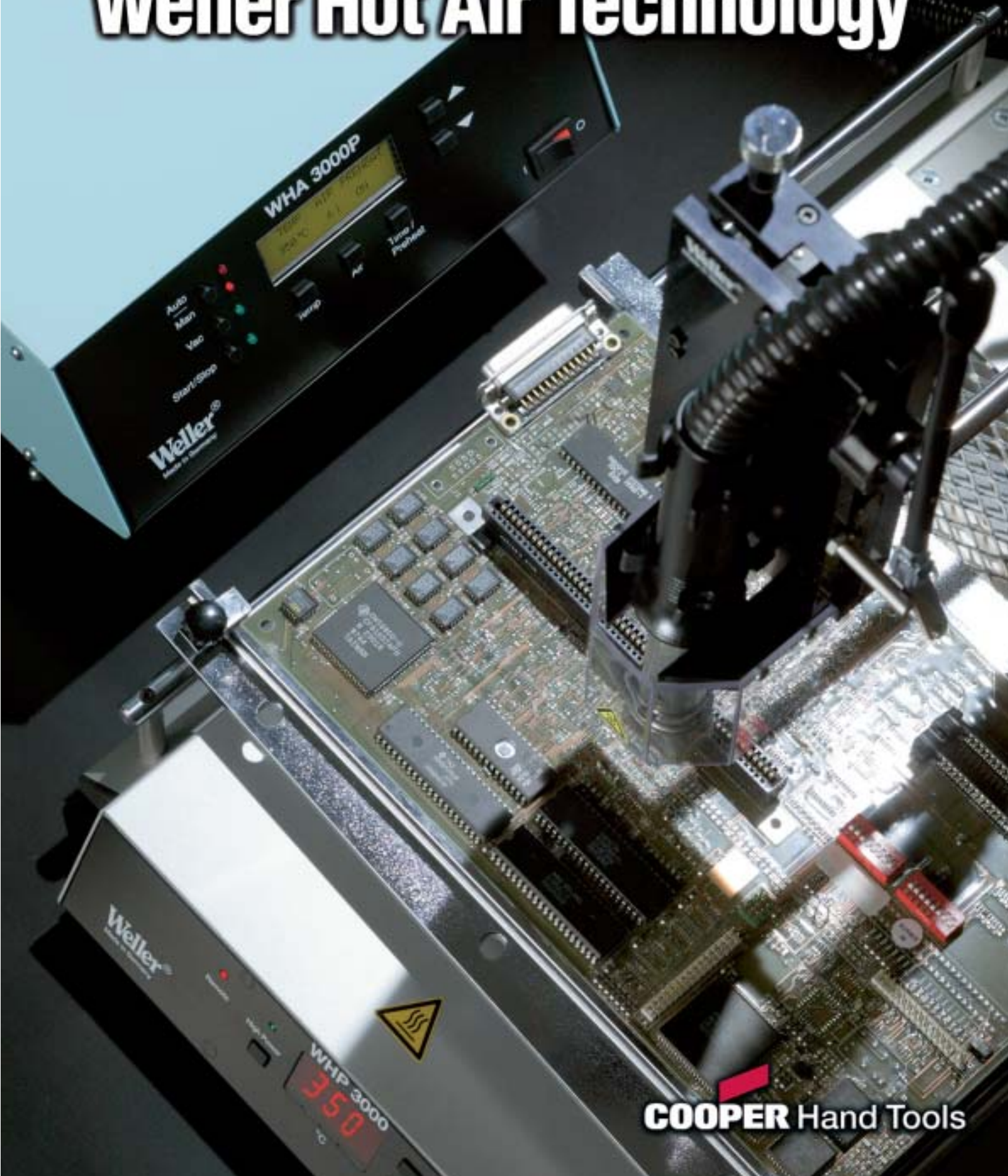


Weller®

# Weller Hot Air Technology



**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 HAP 3000 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 analogue 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.



**WHA 3000P**  
Digitally controlled hot air station with an integral air supply and vacuum pick up at the nozzle. To cater for demanding repair operations.



**WHA 3000V**  
Digitally controlled hot air station for use with a compressed air or inert gas supply and vacuum pick up at the nozzle.



**WHA 300**  
Analogue 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. As well as the HAP 1 hot air pencil, all other tools in the Weller Temtronic range can be connected to these stations and dependant upon the station upto three tools could be controlled independently. 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.



**WMD 3K**  
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 miniature soldering iron, 80 watt through hole desoldering tool and 100 watt hot air pencil.



**WMD 1A**  
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 Temtronic tools of compatible rating could be driven.



**WAD 101**  
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 Temtronic tools apart from the through hole desoldering pencil can be driven.



**WMA 3V**  
A single channel, analogue 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.

# 700 W

## Non destructive desoldering with patented Weller nozzle technology



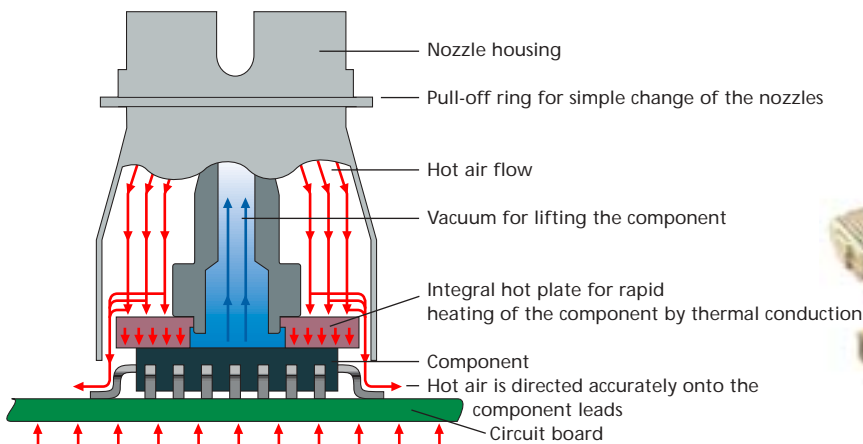
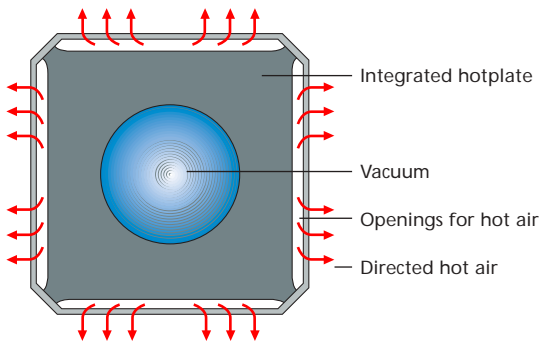
Whether you are replacing SMD components with external solder connections or other types of components such as SMT bases or PGAs, Weller provides you with the solution to your rework problems.

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. Damage caused to the component being removed can usually be discounted, otherwise why is it being removed? Weller patented nozzle technology makes use of this fact by using a combination of 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 and hot air that 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.



**Option:** Bottom heating by the Heating plate **WHP 3000**. The pc board is pre-heated slowly and evenly to the optimum working temperature

# WHA 3000 Set

The versatile system for demanding work

## WHA 3000P

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 up to 50 litres/min.

An ion trap so that charge free hot air is directed at the component.

Memory space to store up to 10 thermal profiles to ensure process repeatability

Alternatively:

## WHA 3000V

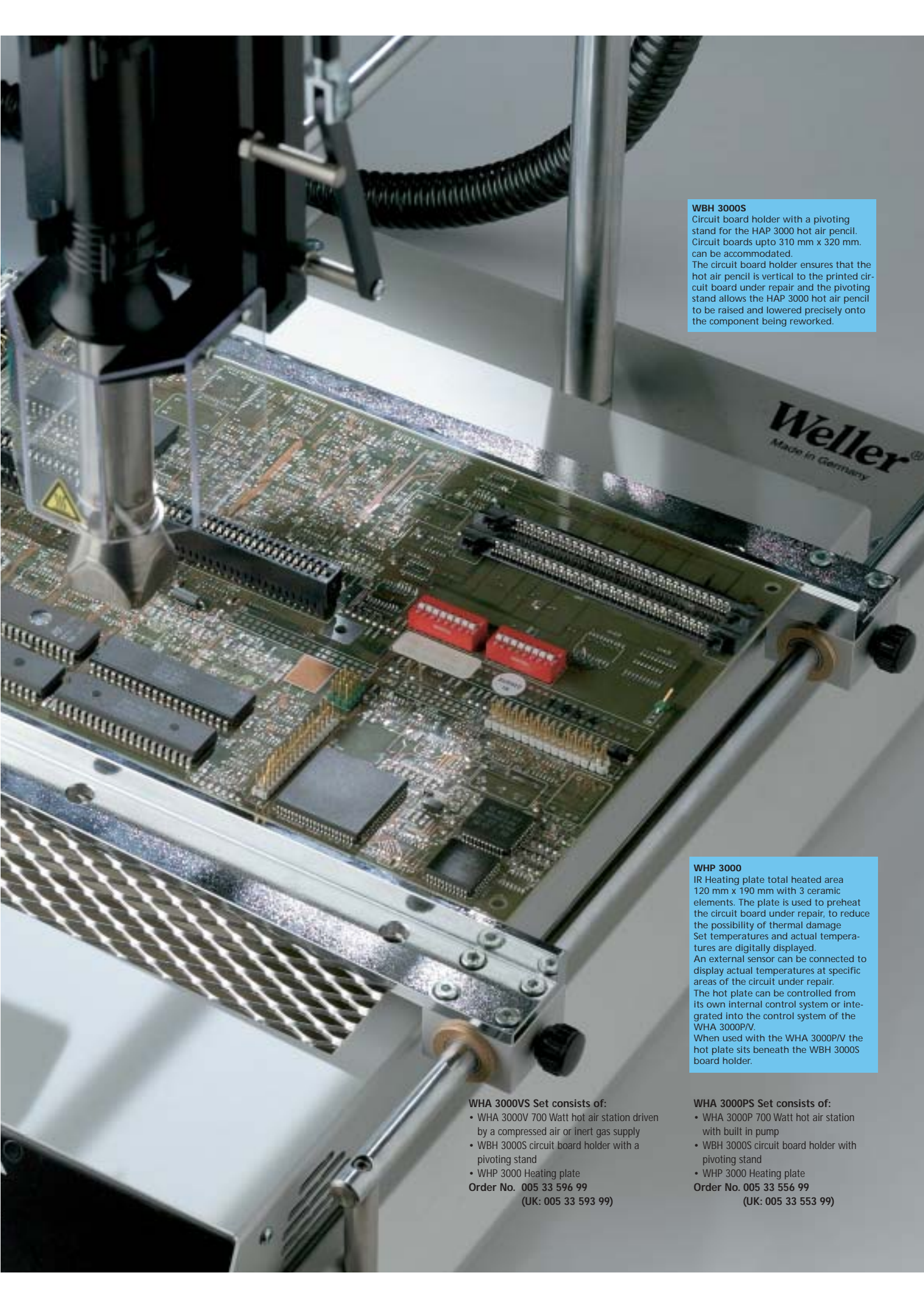
700 watt hot air station similar in all respects to the WHA 3000P but operating from an external compressed air or inert gas supply.



## Hot air nozzle stand (option)

Provides storage for up to 6 hot air nozzles and allows quick and easy nozzle changes even when hot.





#### **WBH 3000S**

Circuit board holder with a pivoting stand for the HAP 3000 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 HAP 3000 hot air pencil to be raised and lowered precisely onto the component being reworked.

#### **WHP 3000**

IR Heating plate total heated area 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 WHA 3000P/V. When used with the WHA 3000P/V the hot plate sits beneath the WBH 3000S board holder.

#### **WHA 3000VS Set consists of:**

- WHA 3000V 700 Watt hot air station driven by a compressed air or inert gas supply
- WBH 3000S circuit board holder with a pivoting stand
- WHP 3000 Heating plate

Order No. 005 33 596 99

(UK: 005 33 593 99)

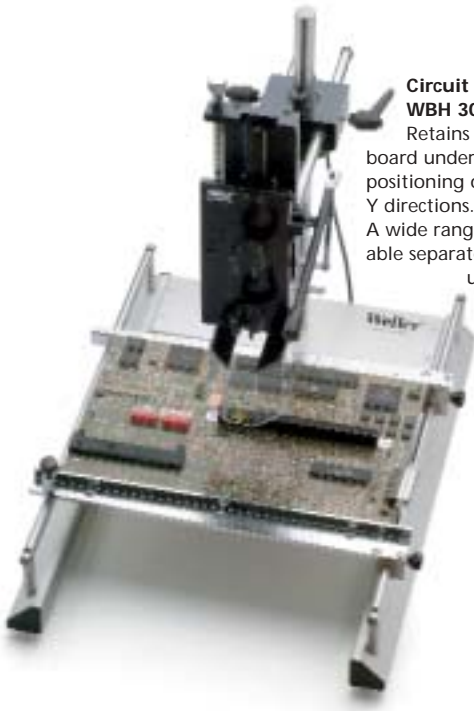
#### **WHA 3000PS Set consists of:**

- WHA 3000P 700 Watt hot air station with built in pump
- WBH 3000S circuit board holder with pivoting stand
- WHP 3000 Heating plate

Order No. 005 33 556 99

(UK: 005 33 553 99)

# The components of the WHA 3000P Set



## Circuit board holder WBH 3000S

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 WBH 3000S incorporates a pivoting stand to mount the HAP 3000 hot air pencil. This stand allows the HAP 3000 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 WHP 3000 (supplied separately) can be fitted under the board holder to provide background heating.

## Technical data WBH 3000S:

Dimensions: 440 x 320 x 446  
(H x W x L mm)

Order No. 005 33 163 99



## Circuit board holder WBH 3000

As the WBH 3000S but without pivoting stand. Technical data WBH 3000.

Dimensions:  
100 x 320 x 446  
(H x W x L mm)

Order No. 005 33 162 99



## Accessories for circuit board holder WBH 3000 / WBH 3000S:

Adjustable circuit board stop.  
Order No. 005 87 548 73



Support for large-dimensioned  
circuit boards.  
Order No. 005 87 557 45



Downholder for circuit boards.  
Order No. 005 87 557 41



Clamping set for irregular shaped  
circuit boards (mobile phones,  
video/digital camera boards etc.).  
Order No. 005 87 549 24



## Heating plate WHP 3000

The WHP 3000 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 minimising 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.

# 700 W

## WHA 3000V

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

Function and equipment corresponds to WHA 3000P

#### Connections

Following connections are on the rear side:

- RS 232 for connecting the pre-heating plate or a PC.
- Connection for manual control panel or foot switch.

#### Technical data WHA 3000V:

Dimensions:	240 x 270 x 100 (W x L x H mm)
Mains voltage:	230 V
Max. heat power:	700 W
Temperature range:	50 °C – 550 °C
Control accuracy:	± 25 °C
Air volume:	5 – 50 l/min.
Max. vacuum:	-0.6 bar
Compressed air supply / Inert gas (N <sub>2</sub> ):	4 – 6 bar
Protection class 1 (control unit and hot air iron hard grounded)	
Order No.	005 33 366 99 (UK: 005 33 363 99)

#### 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 RS 232 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 WBH 3000 board holder is used. The pre-heating plate is designed to sit between the side supports of the board holder.

#### Technical data WHP 3000:

Dimensions:	254 x 395 x 70 (B x L x H)
Heatable surface:	120 x 190 mm
Mains voltage:	230 V
Power:	small heating zone 200 W large heating zone 600 W
Temperature range:	50 °C – 400 °C
Protection class:	1
Order No.	005 33 386 99 (UK: 005 33 383 99)

#### Heating plate WHP 3000

As the WHP 3000 but with a heatable surface of 190 x 245 mm.

#### Technical data:

Dimensions:	254 x 395 x 70 (B x L x H)
Heatable surface:	190 x 245 mm
Mains voltage:	230 V
Power:	1200 W
Temperature range:	50 °C – 400 °C
Protection class:	1
Order No.	005 33 646 99 (UK: 005 33 643 99)

# 700 W

## WHA 3000P

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

The WHA 3000P 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 precision of repair processes. While the sophisticated automatic operation mode guarantees repeatability of the process and increases productivity and quality.

Extensive range accessories compliment the machine to promote flexibility.

#### Stop and Go

The tool holder AKT 30 is a stable support for the hot air pencil. When the pencil is replaced in the support after soldering or desoldering 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.

Order No. 005 15 043 99



#### LCD Display

High contrast LCD characters clearly display the operating parameters.



#### Manual operation

Operating parameters are selected by the operator to cope with repair tasks.

#### 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 WHP 3000 hot plate can also be controlled in this mode. Upto 10 individual programmes can be stored in the machines memory.



#### PC Software

To provide control from a PC.

#### 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 WHA 3000P:

Dimensions: 240 x 270 x 170  
(W x L x H mm)  
Mains voltage: 230 V  
Max. heat power: 700 W  
Temperature range: 50 °C – 550 °C  
Control accuracy: ± 25 °C  
Air volume: 5 – 50 l/min.  
Vacuum: - 0.6 bar  
Protection class 1 (control unit and hot air iron hard grounded)

Order No. 005 33 346 99  
(UK: 005 33 343 99)



### ESD safe

Both the housing and pencil are ESD safe.

### Connections

The rear of the machine has an RS 232 interface for connection to the WHP 3000 heating 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 upto 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 WHA 3000P and WHA 3000V



### 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 WHA 3000P / WHA 3000V.

Order No. 005 87 367 80



### Foot switch

Hot air and vacuum can be activated via the foot switch. The foot switch has two stages: stage 1 hot air, stage 2 vacuum. For connection to WHA 3000P / WHA 3000V.

Order No. 005 36 060 99



### 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 WHA 3000P / WHA 3000V and WHA 3000.

Order No. 005 15 049 99



### External sensor

Type K. For precise "on-the-spot" temperature measurement. For connection to the hot air stations WHA 3000P or WHA 3000V or to the pre-heating plate WHP 3000.

Order No. Ø 0.25 mm: 005 87 549 51

Order No. Ø 0.50 mm: 005 31 190 99



### Stand for hot air nozzles



The rest 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 minimised.

Order No. 005 15 048 99

# 700 W

## WHA 300

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

The WHA 300 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 hot air pencil. Both electronically controlled.

The station is not equipped with a vacuum facility to remove components after reflow or an ion trap.

#### Technical data WHA 300:

Dimensions: 130 x 220  
(D x H mm)  
Current supply: 230 V (120 V),  
50 Hz (60 Hz)  
Max. heat power: 700 W  
Air volume: 10 – 50 l/min.  
Temperature range: 50 °C – 550 °C  
Protection class 1

Order No. 005 33 216 99

(UK: 005 33 213 99)

#### Accessories:

- Foot switch 005 13 120 99
- Stand for hot air nozzles 005 15 048 99

Nozzle range: see pages 11 –13



#### Tool support

Tool support attached to station

#### Setting

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

#### 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

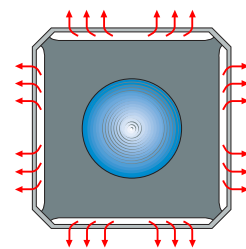
The tool handle and tubing are manufactured from static dissipative materials.

## Hot air nozzles for HAP 3000 WHA 3000P, WHA 3000V, WHA 300

### Nozzle selection

To establish the suitable nozzle for your application, observe the following:

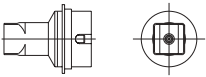
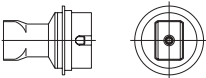
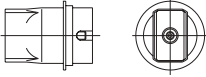
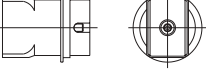
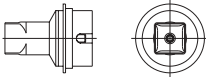
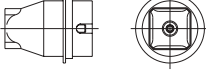
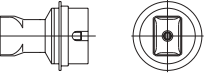
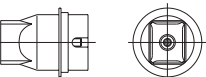
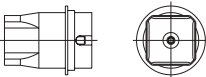
1. The ND and NQ nozzles have an integrated pre-heating plate for pre-heating components by means of contact heat. Air outlet slots are located around the plate with a width of approx. 1 mm for the hot air.
2. The nozzle dimensions named in the brochure correspond to inside dimensions. The dimensions 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 as otherwise the air outlet would be obstructed.
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.



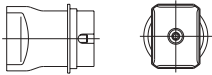
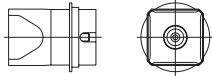
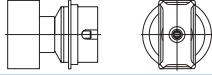
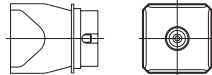
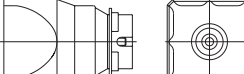
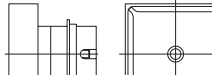
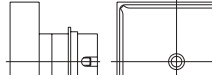
	Model	Dimensions	Components	Pitch/Grid	Order No.
<b>Round nozzles (type NR)</b>					
	NR 02	Ø 1,7 x 4,5° bent (without vacuum)			005 87 368 82
	NR 04	Ø 2,5 (without vacuum)			005 87 368 81
	NR 05	Ø 4 mm (without vacuum)	SO 8	1,27 mm	005 87 368 67
	NR 10	Ø 7 mm (without vacuum)			005 87 368 70
	DR 05	2 x Ø 2,5 x 9,5 mm (without vacuum)			005 87 368 83

## Hot air nozzles for HAP 3000 WHA 3000P, WHA 3000V, WHA 300



Model	Dimensions X x Y	Components	Pitch/Grid	Order No.	
<b>Two sides heated (type ND)</b>					
	ND 05	10,7 x 10,7 mm	SO 14 SO 16	1,27 mm 1,27 mm	005 87 368 43
	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	005 87 368 42
	ND 15	19,0 x 12,0 mm	SOL 24 SOL-J 24	1,27 mm 1,27 mm	005 87 368 41
	ND 20	21,5 x 14,8 mm	SOL 28 SOL-J 28	1,27 mm 1,27 mm	005 87 368 40
<b>Two sides heated (type ND) without edge</b>					
	ND SK535/A	8,5 x 20,0 mm	TSOP 20/0.5P	Nozzles without	005 87 369 32
	ND SK535/B	10,5 x 20,0 mm	TSOP 40/0.5P	edge for thin	005 87 369 33
	ND SK535/C	14,0 x 20,0 mm	TSOP 56/0.5P	components	005 87 369 34
	ND SK699	12,5 x 20,0 mm	TSOP 48		005 87 507 34
<b>All 4 sides heated (type NQ)</b>					
	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)	005 87 368 39
	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	005 87 368 18
	NQ 15	14,5 x 10,0 mm	PLCC 32R		005 87 368 38
	NQ 20	15,5 x 13,0 mm			005 87 368 37
	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	005 87 368 14

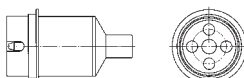


	Model	Dimensions X x Y	Components	Pitch/Grid	Order No.
	NQ 30	17,5 x 23,5 mm	QFP 56 QFP 60 QFP 64 QFP 80 QFP 88 QFP 100	1,0 mm 1,0 mm 1,0 mm 0,8 mm 0,65 mm	005 87 507 21
	NQ 35	20,5 x 20,5 mm	PLCC 52 BQFP 84	1,27 mm 0,65 mm	005 87 368 07
	SK 460/A	24,0 x 12,0 mm	Q-CPM-9401		005 87 368 80
	NQ 40	26,0 x 26,0 mm	C-QFP 64 PLCC 68 CLCC 68	1,27 mm 1,27 mm 1,27 mm	005 87 368 04
	NQ 45	31,3 x 31,3 mm	CLCC 84 PLCC 84 QFP 100 QFP 120 QFP 128 QFP 132 QFP 136 QFP 144 QFP 160 QFP 120 C-QFP 80 BQFP 164 BQFP 132 MQUAD 208L MQUAD 184L MQUAD 144L QFP 208	1,27 mm 1,27 mm 0,80 mm 0,80 mm 0,80 mm 0,65 mm 0,65 mm 0,65 mm 0,65 mm 0,35 mm 1,27 mm 0,65 mm 0,65 mm 0,50 mm 0,65 mm 0,50 mm 0,50 mm	005 87 368 33
	NQ 50	36,0 x 36,0 mm	QFP 240	0,50 mm	005 87 368 91
	NQ 55	43,0 x 43,0 mm	CQFP 304	0,50 mm	005 87 368 90

### All 4 sides heated without protruding edge (type TQFP)

NQT	14,8 x 14,8 mm	TQFP	for thin components	005 87 507 41
SK 1127	14,0 x 20,0 mm	TQFP/128	for thin components	005 87 507 58
SK 1119 B	22,0 x 22,0 mm	TQFP	for thin components	005 87 507 39
NQT 25	18,0 x 18,0 mm	TQFP	for thin components	005 87 507 42
NQS	11,5 x 14,0 mm	PLCC 32R	IC mounting	005 87 369 45
NQS	16,5 x 16,5 mm	PLCC 44	IC mounting	005 87 369 44

### Measuring nozzle



NA 20

Measuring nozzle 005 87 368 75  
for Temperature adjustment.

Special design on request.

# 100 W WMD 3K

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

The WMD 3 K 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 from the Weller Temtronic range can be controlled

from this station upto 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 upto 99 minutes can be programmed to initiate a set back facility. A mechanical key operated lock can be used to physically lock all functions.

### LED displays

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

### Digital display

Shows set and actual temperature values and air volume.  
Analogue vacuum gauge to monitor desolder function.

### Parameter setting

Push buttons

### Pump

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

### Vacuum

Connection for DSX 80 desoldering iron.

### Hot air

Connection for HAP 1 hot air pencil.



### ESD safe

The housing and all tool handles air and vacuum pipes and leads are manufactured from static dissipative materials.

### Technical data WMD 3K:

Dimensions: 240 x 270 x 105 (W x L x H mm)  
Mains voltage: 230 V  
Power input: 310 W  
Air volume: 5 – 10 l/min.  
Max. vacuum: – 0.7 bar  
Temperature range: hot air 50 °C – 550 °C  
Soldering/desoldering tool 50 °C – 450 °C  
Hot air ± 30 °C  
Accuracy: Soldering/desoldering tool ± 2% of end value  
Protection class: 1 and 3 (control unit and hot air iron hard grounded)

### Consists of:

- Power unit
- Hot air pencil HAP 1 with support KH 27
- Desoldering iron DSX 80 with support AK 20
- Soldering pencil WSP 80 with support WPH 80

Order No. 005 33 026 75  
(UK: 005 33 023 70)

### Accessories:

- Foot switch for activating hot air or vacuum

Order No. 005 31 181 99



# 100 W

## WMD 1A

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



The WMD 1A 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 to be used as conventional through hole desoldering station by the addition of desoldering iron, available as an accessory. The station can also drive all other Temtronic tools

upto 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 WCB 2 (available as an accessory).

### Technical data WMD 1A:

Dimensions: 240 x 270 x 105 (W x L x H mm)  
Mains voltage: 230 V  
Power input: 175 W  
Air volume: 5 – 10 l/min.  
Vacuum: max. – 0.7 bar  
Temperature range: hot air 50 °C – 550 °C  
Accuracy: ± 30 °C  
Protection class: 1 and 3 (control unit and hot air iron hard grounded)

### Consists of:

- Power unit
  - Hot air pencil HAP 1 with support KH 27
- Order No. 005 33 306 99  
(UK: 005 33 303 99)

### Accessories:

- WCB 2 calibration unit for following functions:
    - LOCK = simple locking of the temperature
    - WINDOW = locking of a temperature range
    - SET-BACK = time-specified temperature decrease
    - °C / °F = display in Celsius or Fahrenheit
    - 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. 005 31 181 99

### Pump

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

### Digital display

Displays set and actual temperatures and air volume.



**Hot air**  
Connection for hot air pencil HAP 1.

**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.

# 100 W

## WAD 101

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

The WAD 101 is a microprocessor controlled hot air station equipped with a HAP 1 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 Temtronic tools (except vacuum desoldering tools) upto a max loading of 80 watts. The station can identify which tool is in use and automatically calibrate itself for that tool.

**New**

#### WSP 801 IG Inert Gas Soldering Iron

For use in applications when soldering under an atmosphere of inert gas to prevent joint oxidation is required. Driven from the WAD 101 station, inert gas is fed through the tip nut of the iron to envelop the solder joint. The station controls the temperature of the iron and regulates the volume of gas supplied.

The Stop + Go bench holder will automatically start the gas flow when the iron is removed from the holder and stop the gas flow when the iron is replaced.

#### The Set consists of:

- WSP 80 IG soldering iron with inert gas connection
- Stop+Go support WBHT
- Soldering tip LT B
- Connection hose: soldering iron – power unit (1.5 m)

#### Technical data WSP 80IG:

Temperature range: 50 °C – 450 °C  
Power: 80 W  
Soldering tips model: LT series  
Order No. 005 33 158 99



#### Technical data WAD 101:

Dimensions: 166 x 134 x 101 (W x L x H mm)  
Mains voltage: 230 V  
Power input: 105 W  
Air volume: 5 – 10 l/min  
Vacuum: –  
Temperature range: hot air 50°C – 550°C  
Accuracy: ± 30°C  
Protection class: 1 and 3 (control unit and hot air iron hard grounded)

#### Consists of:

- Power unit
  - Hot air pencil HAP 1 with support KH 27
- Order No. 005 32 666 99  
(UK: 005 32 663 99)

#### 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

## WMA 3V

# Multi-analogue single channel hot air station with dispenser and vacuum pick-up



The WMA 3V is a single channel analogue controlled rework station equipped with a HAP 1 hot air pencil, Erem 3000 vacuum pick up and a dispenser. It is driven from an external compressed air or inert gas source. The WMA 3V is therefore able to apply solder paste, place and solder or desolder

components. Additionally, all Temtronic tools upto a maximum rating of 80 watts can be driven from 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 WMA 3V:

Dimensions: 240 x 270 x 105 (W x L x H mm)  
Mains voltage: 230 V  
Power input: 130 W  
Air volume: 5 – 10 l/min.  
Vacuum: max. – 0.7 bar  
Temperature range: hot air 50 °C – 550 °C  
Accuracy: ± 30 °C  
Protection class: 1 and 3 (control unit and hot air iron hard grounded)

### Consists of:

- Power unit
- Hot air pencil HAP 1 with support KH 27
- Dispenser
- Erem 3000 vacuum pipette
- Combination rest for dispenser and vacuum pipette
- Foot switch
- Manual control panel

Order No. 005 33 086 99  
(UK: 005 33 087 99)

### Compressed air

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

### ESD safe

Housing and hot air pencil are ESD safe.

### Easy to use

Parameter setting by rotary potentiometers against easy read scales.



### Dispenser

Dispenser for soldering paste, flux gel or adhesive.

### ESD safe

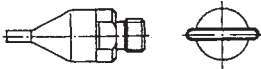


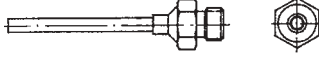
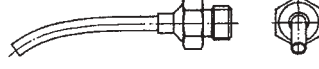

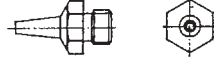



The hot air is passed through an ion trap to ensure charge free delivery.

### Vacuum

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

# Hot air nozzles for HAP 1

## WMD 3K, WMD 1A, WAD 101, WMA 3V

	Model	Dimensions	Components	Description	Order No.
<b>Round nozzles</b>					
	F06	12,0 x 1,5 mm		flat nozzle	005 87 277 72
	F04	10,5 x 1,5 mm		flat nozzle	005 87 277 73
	F02	8,0 x 1,5 mm		flat nozzle	005 87 277 74
	R10	Δ 2,0 mm		round nozzle	005 87 277 87
	R08	Δ 2,0 mm		round nozzle, bent	005 87 277 86
	R06	Δ 3,0 mm		round nozzle	005 87 278 22
	R04	Δ 1,2 mm		round nozzle	005 87 278 21
	R02	Δ 0,8 mm		round nozzle	005 87 278 23
	FD4	Δ 1,5 x 10,0 mm		dual nozzle	005 87 277 75
	FD2	Δ 1,5 x 8,0 mm		dual nozzle	005 87 277 76

# 100 W



	Model	Dimensions X x Y	Components	Description	Order No.
<b>Two sides heated (type D)</b>					
	D10	18,0 x 10,0 mm	SO 28	hot air nozzle with hotplate	005 87 277 84
	D08	15,0 x 10,0 mm		hot air nozzle with hotplate	005 87 277 81
	D06	13,0 x 10,0 mm		hot air nozzle with hotplate	005 87 277 82
	D04	10,5 x 10,5 mm		hot air nozzle with hotplate	005 87 277 79
<b>All 4 sides heated (type D)</b>					
	SK 709 SK 769A Q10	12,0 x 12,0 mm 16,0 x 16,0 mm 18,0 x 18,0 mm		hot air nozzle with hotplate	005 87 278 12 005 87 278 16 005 87 277 85
	Q08	12,5 x 15,0 mm		hot air nozzle with hotplate	005 87 277 83
	Q06	15,0 x 10,0 mm		hot air nozzle	005 87 277 80
	Q04	6,0 x 9,0 mm		hot air nozzle	005 87 277 78
	Q02	6,0 x 6,5 mm		hot air nozzle	005 87 277 77
<b>Measuring nozzle</b>					
	R01			measuring nozzle	005 87 278 08

# 700 W

## 700 W Hot air stations

### WHA 3000P



#### Scope of supply:

- WHA 3000P 700 W Hot air station with built-in turbine
- HAP 3 Hot air pencil
- NQ 30 Hot air nozzle
- AKT 30 Support
- Nozzle change tool
- WHA Control Software

Order No. 005 33 346 99  
(UK: 005 33 343 99)

### WHA 3000V



#### Scope of supply:

- WHA 3000V 700-W hot air station for operation with compressed air or inert gas
- HAP 3 Hot air pencil
- NQ 30 Hot air nozzle
- AKT 30 Support
- Nozzle change tool
- WHA Control Software

Order No. 005 33 366 99  
(UK: 005 33 363 99)

### WHA 300



#### Scope of supply:

- WHA 300 700-W Hot air station with built-in turbine and integrated safety rest
- HAP Hot air iron

Order No. 005 33 216 99  
(UK: 005 33 213 99)

# 100 W

## 100 W Hot air stations

### WMD 3K



#### Scope of supply:

- Power unit
- Hot air pencil HAP 1
- Support KH 27
- Hot air nozzle R 04
- Hot air nozzle R 06
- Soldering pencil WSP 80
- Support WPH 80
- Soldering tip LT 1S
- Desoldering iron DSX 20
- Support AK 20
- Suction nozzle DX 112
- Suction nozzle DX 113
- Cleaning and nozzle change tool
- Glass tube for desoldering iron (spare)

Order No. 005 33 026 75  
(UK: 005 33 023 70)

### WMD 1A



#### Scope of supply:

- Power unit WMD 1S
- Hot air pencil HAP 1
- Support KH 27
- Hot air nozzle R 04
- Hot air nozzle R 06
- Cleaning and nozzle change tool

Order No. 005 33 306 99  
(UK: 005 33 303 99)

### WAD 101



#### Scope of supply:

- Power unit
- Hot air pencil HAP 1
- Support KH 27
- Hot air nozzle R 04
- Hot air nozzle R 06
- Cleaning and nozzle change tool

Order No. 005 32 666 99  
(UK: 005 32 663 99)

### WMA 3V



#### Scope of supply:

- Power unit
- Hot air pencil HAP 1
- Support KH 27
- Hot air nozzle R 04
- Hot air nozzle R 06
- 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. 005 33 086 99  
(UK: 005 33 087 99)

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