

SAFETY



Danger to life when opening the tool, as live components and connections are exposed. The device must be disconnected from the mains supply before opening. Electric work shall only be operated by qualified personal (according to TRBS 1203).



Danger of fire and explosion if the hot air blower is installed and used incorrectly, particularly near flammable materials and explosive gases. **Not suitable for hazardous locations!** The minimal air flow must not be undercut.



Danger of burns

Do not touch heating element pipes and nozzles when hot. Let the device cool down. Do not point the hot air jet at persons or animals.

The mains voltage specified on the device's type plate must correspond to the mains voltage. Tools with a fix connection must be connected to a separator (e.g. mains switch).



Special connecting conditions according to IEC/EN 61000-3-11;

$Z_{\max} = 0,039\Omega + j 0,025\Omega$ for short time rating (30 minutes);

$Z_{\max} = 0,026\Omega + j 0,016\Omega$ for continuous operation.

Consult your local electricity supplier if necessary.



GFCI/RCCB: for personal protection on building sites we strongly recommend to connect the tool to a GFCI (Ground Fault Circuit Interrupter) or to a RCCB (Residual Current Circuit Breaker).



Device in protection class II“



The device must be supervised when in operation. The heat can reach flammable materials that are out of view.



Protect the device from damp and wet!

WARRANTY AND LIABILITY

Warranty and liability apply from the date of purchase (documented by the invoice/delivery note) according to the currently valid general terms of business from BAK. BAK refuses to honour any warranty for devices which are not in their original condition. BAK devices may never be reconfigured and/or modified. BAK reserves the right to deny any responsibility if this is ignored. No liability can be assumed by BAK for incorrect installation and/or use as well as natural wear and tear of components (e.g. heating elements).

Note:

This operating manual must be available to the installation and operating personnel at all times. Read these operating instructions carefully before installing and using the device.

Copyright:

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CONVENTIONAL APPLICATION

This BAK hot air heater is a modular unit which creates process heat in industrial environments. The device is suitable for continuous operation. The blower can be used as hand tool, bench tool or can be built into machines and installations.

Their installation and the working process shall only occur after observance of every safety arrangement for the provided place of installation and application. The accordance with the effective edition of the equipment and operations safety (GPSG) and the machine standards (MRL) must be guaranteed.

INSTALLATION

1.0. INSTALLATION / Connection (only be conducted by a qualified person)

(thermal security class 1 according to EN 60519-1, paragraph 13.8)

1.1. Connection for model 400VAC:

- L1 = black
- L2 = brown
- N = blue

1.2. When installing the tool, ensure that:

- the electrical protection is aligned to the nominal current.
- only cold air up to a max. of 50°C / 122°F is fed to the device.
- no (warm air) back pressure develops.
- the air intake (9) is not covered and the tool can take in the air with no problems.
- the device is not positioned within the hot air jet of a different device.

1.3. When built in vertical (Blow off opening downwards) it is important that the device cannot suck in hot air.

1.4. Protect the device from vibration and shock. For mechanical movements use absorber against the impacts.

1.5. When fixing, the thread inserts M5 (11) on the underside of the device should be used.

1.6. At high foaling of the intake air (e.g. textile factory) a BAK-stainless steel filter should be used.

2.0. OPERATION

2.1. Make sure that the hot air can flow freely. Warmth backflow can occur damage on the device (risk of fire!).

2.2. Allow the blower to cool the unit after using.

STANDARD DESIGN

The hot air blower is equipped with a control electronic to control the temperature and the speed level. It is also provided with a built-in potentiometer as well as an integrated heating element and device protection.

SPECIAL DESIGNS

- Temperature control via external potentiometer, controller or SPS.
- Air quantity control with external potentiometer, 5-10 VDC or PWM signal
- Internal temperature control unit
- Internal or external thermocouple
- Special heating elements (power, voltage)

INFORMATION AND ADVICE

The BAK group and its authorised service centres offer free support and assistance in the area of applications technology.

Our specialists will be pleased to help you.

Customer service and orders:

BAK Thermoplastic Welding Technology AG

Industriestrasse 6

CH-6064 Kerns/Switzerland

Telefon: (0041) 041 661 22 50

Telefax: (0041) 041 661 22 51

E-Mail: info@bak-ag.com

ACCESSORIES

Get the best results by using BAK-accessories and spare parts.

Further information can be found in our brochures.

MAINTENANCE

Control and clean the air intake **(9)** and the optional BAK stainless steel filter of the device regularly.

Check power supply cord and plug for any possible mechanical damages.

SERVICE AND REPAIR

Repairs should only be carried out by authorized BAK service centres. These guarantee a professional and reliable 24-hour repair service with original spare parts. A heating element can be changed by qualified personal.

If the main connection of the device is damaged, it should be replaced by the manufacturer, from an authorized BAK service centre or a qualified person to avoid danger.

SHIPPING

For repairs, please return the device appropriately packed for transport to your next BAK service centre.

Shipping to CUSTOMER ACCOUNT.

Technical modifications reserved. In case of doubt, consultation with BAK is required. Images and drawings may deviate from the original. Changes reserved.

DISPOSAL



Electrical tools, equipment and packaging should be supplied for environmental appropriate recycling.

Do not dispose electrical tools in household refuse.

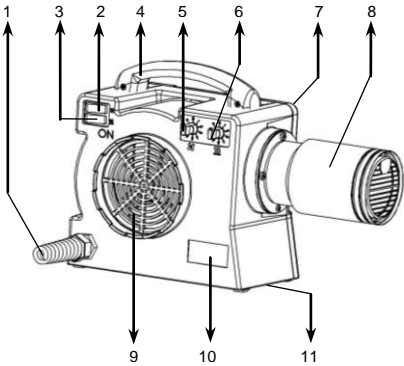
EU Countries only: Pursuant to EU Directive 2002/96/EC on waste electrical and electronic equipment (WEEE) and its implementation in national law, out-of-use electrical tools have to be collected separately and be supplied for environmental appropriate recycling.

TECHNICAL DATA

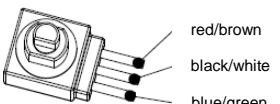
Technical Data:		C-2300	C-3100	C-3700	C-4700	C-6100
Voltage	VAC	230			400 (2Ph + N)	
Frequency	Hz	50 / 60				
Power	kW	2,3	3,1	3,7	4,7	6,1
Electricity	A	10	13,5	16	11,8	15,3
Max. temperature	°C / °F	650 / 1202	800 / 1472	650 / 1202		
Min. air volume	l/min	400	350	400		550
Max. air volume at 20°C	l/min	940	800	930	960	950
Max. temperature at full air volume	°C / °F	260 / 500	520 / 968	440 / 824	480 / 896	630 / 1166
Stat. pressure	Pa	450				
Noise level (LpA)	db	73 (with 1m distance)				
Air inlet	Ø mm	102,5				
Blow off opening	Ø mm	62/74				
Dimensions(LxWxH)	mm	322 x 138 x 180	360 x 138 x 180	322 x 138 x 180	360 x 138 x 180	
Weight incl. cable	kg	2,8	3,1	2,8	3,1	
Conformity symbol		CE				
Protection class II		<input type="checkbox"/>				

Please ask for special heating elements (power, voltage).

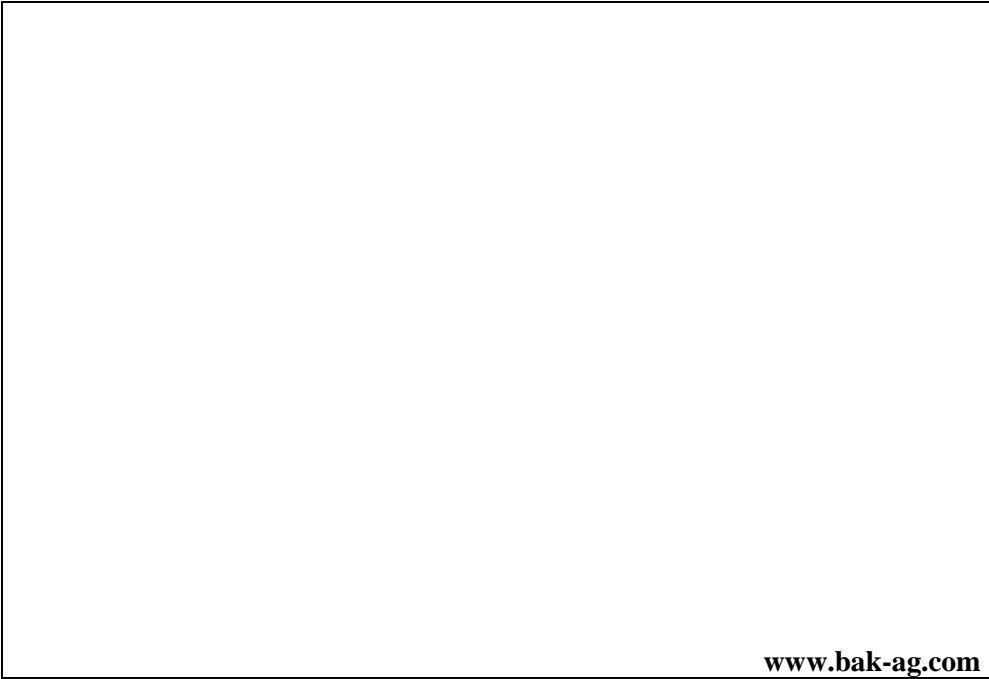
DEVICE DESCRIPTION

	<ol style="list-style-type: none"> 1. Power supply cord 2. Blower ON – OFF 3. Heater ON – OFF 4. Removable handle 5. Potentiometer for air volume control 6. Potentiometer for temperature control 7. Type plate (back side of the device) 8. Heating element tube 9. Air intake 10. Installation regulator (optional) 11. Six M5 drilled and tapped holes for fixing into installation (Dimensions on the underside of the device)
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PINOUT SCHEME FOR SPECIAL DESIGNS

<p>Control cable for external temperature control:</p> <ul style="list-style-type: none"> - digital signal (PWM 10-24 V_{DC} max. cycle time 1 second) 	<p>+ = brown - = white</p>
<p>Control cable for external potentiometer for temperature or speed control:</p>	
<p>Control cable for external speed control:</p> <ul style="list-style-type: none"> - digital rpm= 15V_{DC}, I/max = 10mA; PMW/1-10KHz/50-100% (50% minimum air-flow) - analogue 5-10V_{DC}; (5V_{DC} = minimum air-flow) 	<p>+ = green - = white</p>
<p>Warning: For analogue and digital speed control, the minimum air-flow must be guaranteed when the hot-air blower is running.</p>	
<p>Signal line for external speed indicator:</p> <ul style="list-style-type: none"> - 1 impulse per revolution - open collector exit 	<p>+ = brown - = white</p>
<p>Compensating line for 'K' type internal thermocouple:</p>	<p>+ = green - = white</p>

Your service centre:



www.bak-ag.com

Illustrations and sketches may differ from the original device. Subject to changes without prior notice.