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Automatic welding machine

type TechOn

OPERATING MANUAL



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 of BAK. BAK refuses to honor 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:

This document must not be disclosed to third parties without the explicit written approval of BAK. Any forms of reproduction or copying and electronic storage are prohibited.

INTENDED USE

The TechOn is an automatic welding machine for overlap welding of roofing membranes made of PE, PVC, TPO, ECB, EPDM, CSPE and bitumen. The machine can also be used in areas close to edges.

Any improper use may result in danger for the operator or third parties or may adversely affect machines and assets.

Only use the automatic welding machine if in technically perfect condition and for the purposes for which they are intended while observing the operating instructions.

The tool can be used for the applications mentioned in the present operating instructions only!

Stop operating the automatic welding machine if

- the connecting line or the plug have been damaged.
- safety installations have been damaged.
- changes occur in the operating state.

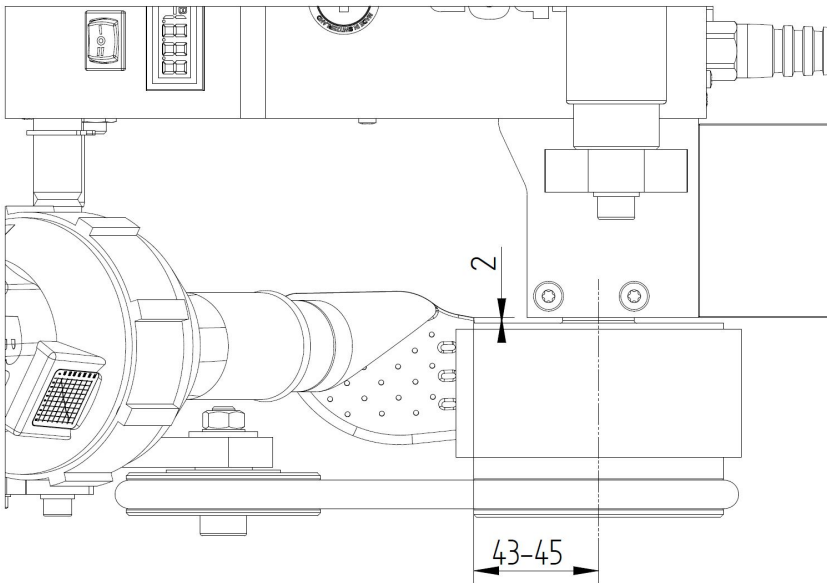
EXTENSION CORDS

When using extension cords the minimum diameter of cables must be observed. Extension cords must be approved and marked for their place of utilization.

NOZZLE ADJUSTMENT

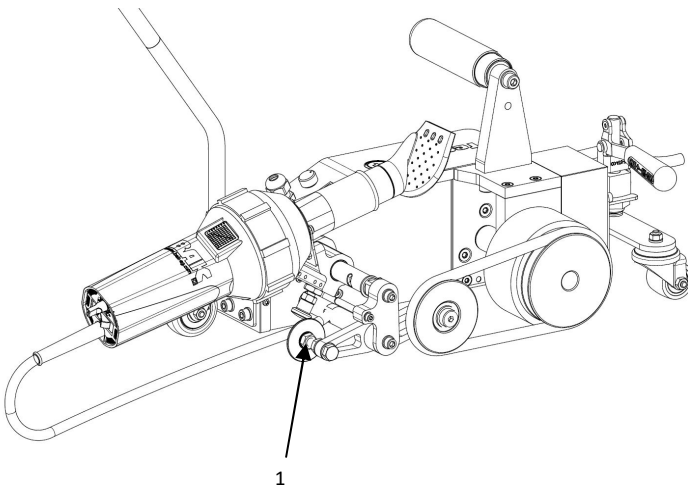
Changes of the nozzle adjustment can be done when loosening the adjustment screw.

For recommended setting use the following sketch:



GUIDE ROLLER ADJUSTMENT

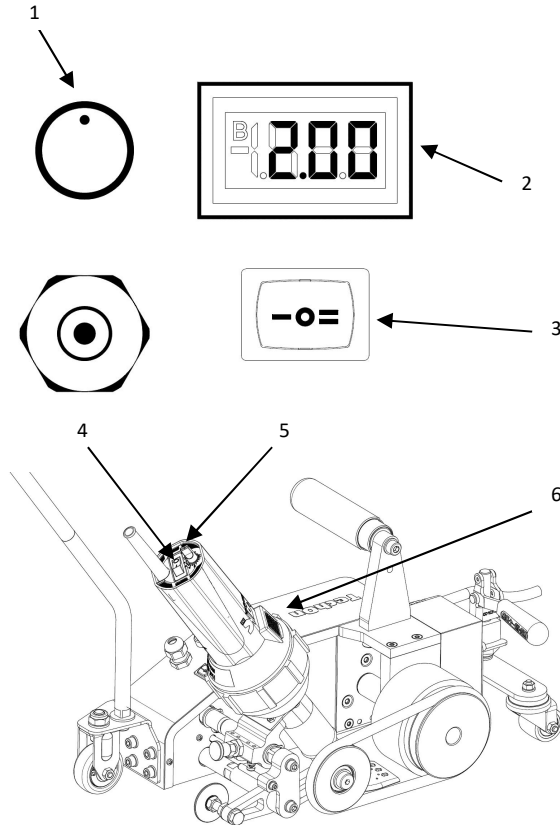
Fold down the guide wheel (1) and fixate it with the hexagon nut on the thread bar. Outside edge of the overlap, outside edge of the pressure roller and outside edge of the guide roller have to be in one line.



STARTING OF THE WELDING MACHINE

Attention:

Always do a test welding before the real welding to find out the parameters.

**Control unit:**

1. Potentiometer speed
2. Display speed
3. Switch hand – automatic
4. Switch heat
5. Potentiometer heat
6. Display temperature (only on digital version)

Before plugging in the mains please check the following:

- Switch heat (4) is on position OFF
- Switch (3) is on position II (Auto)
- The hot air tool has to be in stand-by position

After this the following process needs to be followed:

- Plug in mains
- Adjust the desired heat value (5) with the potentiometer
- Switch on the heat switch (4)
- The machine is now heating up to the desired temperature.
- Adjust the desired welding speed on the potentiometer (1), this will be shown on the display (2).
- The switch for the drive (3) has two functions:
 - On position 1 the drive starts immediately and is running constantly.
 - On position 2 the drive starts after sliding in the nozzle into the material and stops after taking out the nozzle.
- Once the welding is finished the tool needs to cool down. For this put the switch for the heat (4) on position OFF and wait until the tool has cooled down.
- Disconnect the tool from the mains.

ASSEMBLY

**Attention:**

Always plug out the mains before working on the machine!

Changing the heating element (only if the tool is properly cooled down)

- Swing out the hot air blower and lock it
- Loosen four screws on the flange of the nozzle
- Take off the nozzle
- Take off the mica tube (be careful, the mica tube is fragile)
- Take off the gasket ring
- Take off the damaged heating element
- Plug in the new heating element – double check the markings, the wattage and the voltage
- Put on the mica tube
- Put on the gasket ring, position the drillings
- Slide on the nozzle and attach it with the four screws
- Adjust the nozzle according the sketch on page 4

MAINTENANCE

- Clean the nozzle with a wire brush at the end of the welding
- Treat the chains by necessity with chain spray
- After use, always check that the mains cable and the plug are not damaged. Should the mains cable of the tool be damaged, it must be immediately exchanged by the supplier, his customer service or another qualified person to prevent danger.

WARNING

- If the power supply cable gets damaged, it has to be replaced by the manufacturer, its customer service or by a qualified person in order to avoid danger.
- The machine must not be used by personnel (including children) with limited physical, sensory or mental capabilities or lack of experience and/or knowledge, except when supervised by a person who is responsible for their safety or when advised how to use the device by that person.
- Children must be supervised in order to ensure that they do not play with the machine.
- Because of the enormous fire danger, the operating personnel must be specially briefed and regularly instructed.
- Fire can occur if the machine is not used carefully.
- Do not leave the machine unobserved while it is in operation.
- Demonstrate the necessary caution when operating the device near inflammable materials. Do not operate on the same surface for longer periods of time.
- A fire extinguisher must always be within reach in the work area.
- The machine must not be used in explosive atmospheres.
- Heat may reach inflammable materials that are not readily visible.
- There is a very significant risk of fire when the machine stops because of any disturbance and the hot air device is still running (max. temperature 600 °C). Therefore, special attention should be placed on the subsurface and the material to be processed.
- The welding machine must not be used on inflammable surfaces (e. g. wooden roofs and floors made of wood)
- The machine bears the protection mark IP20 and must therefore be protected from damp and rain.
- When using the machine on roofs and tables, it could fall down due to its automatic drive system. In order to avoid a fall, necessary precautions must be taken.

OPERATIONAL SAFETY

The automatic welding machine is manufactured in accordance with the recognized rules of technology. The latest safety standards have been observed to eliminate work related risks to the life and health of the operating personnel when the machine is used in accordance with its intended use.

DANGER ZONE

The main danger zone of the automatic welding machine is the nozzle which can heat up to temperatures of 620°C. It is recommended to wear heat protective gloves. While sliding in the nozzle bruises can occur.

ASSISTANCE AND SUPPORT

The BAK group and its authorized service centers offer free support and assistance in the area of applications technology. Our specialists will be pleased to help you.

Customer service and orders:

BAK Technology AG
Industriestrasse 6
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Get the best results by using BAK-accessories and spare parts.
Please refer to our brochures for additional information.

SERVICE AND REPAIR

Repairs have to be carried out exclusively by BAK authorized service centers.

SHIPPING

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

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.

TRANSPORT – HANDLING - STORAGE

Transport:

The automatic welding machine is packed appropriately and must be protected from moisture.

Handling:

The shipment must be checked if complete and for transport damage. In the event of transport damage, the defect must be confirmed in writing at the time of the delivery by the carrier. The seller must be promptly informed in writing!

Storage:

In the case of temporary storage, the welding machine should be kept packed and must be protected from moisture. In the case of damage resulting from improper storage, no warranty claim will be honored.

DISPOSAL




Power tools, accessories and packaging should be sorted for environmental friendly recycling.

Do not dispose power tools together with household waste!

Only EU countries: According to the European Directive 2012/19/EU on waste electrical and electronic equipment and its incorporation into national law, power tools that are no longer operational must be separately collected and sent to be environmental friendly recycled.

TECHNICAL DATA

		TechOn
Voltage	V	120/230
Frequency	Hz	50/60
Nominal power Power consumption max.	W	1700/2100
Temperature	°C	20 – 600
Drive	m/min	0.5-4
Dimensions	mm (L x B x H)	450x230x320
Weight	kg	17
Conformity symbol	CE	
Protection type I		
Other voltages on request.		

CE/TechOn

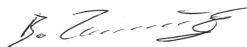
D EG – Konformitätserklärung
F Déclaration CE de conformité
I Dichiarazione CE di conformità
GB EC Declaration of conformity
E Declaración CE de conformidad

D EG – Konformitätserklärung

BAK Technology AG, CH-6064 Kerns/Schweiz bestätigt, dass das nachfolgend bezeichnete Gerät in der von uns in Verkehr gebrachten Ausführung die Anforderungen der folgenden EG-Richtlinie(n) erfüllt.

Bezeichnung des Gerätes: Welding machine
 Typ: TechOn
 Richtlinien: 2014/30/EU, 2014/35/EU, 2006/42/EC, 2011/65/EU
 Harmonisierte Normen: EN 55014-1:2017 + A11:2020, EN 55014-2:1997+A1:2001+A2:2008, EN 61000-3-2:2014, EN 61000-3-3:2013, EN 60335-1:2012 + AC:2014 + A11:2014 + A13:2017 + A1:2019 + A2:2019 + A14:2019 + A2:2019 + A15:2021, EN 60335-2-45:2002 + A1:2008 + A2:2012, EN 62233:2008, EN 63000:2019-05

Kerns, 10.01.2024 Bruno Zurmühle, CEO



F Déclaration CE de conformité

BAK Technology AG, CH-6064 Kerns/Suisse déclare qu'à la sortie de ses usines l'appareil désigné ci-dessous était conforme aux dispositions de(s) la directive(s) CEE suivante(s).

Description de l'appareil: Welding machine
 Modèle: TechOn
 Directive(s) CEE : 2014/30/EU, 2014/35/EU, 2006/42/EC, 2011/65/EU
 Normes harmonisées: EN 55014-1:2017 + A11:2020, EN 55014-2:1997+A1:2001+A2:2008, EN 61000-3-2:2014, EN 61000-3-3:2013, EN 60335-1:2012 + AC:2014 + A11:2014 + A13:2017 + A1:2019 + A2:2019 + A14:2019 + A2:2019 + A15:2021, EN 60335-2-45:2002 + A1:2008 + A2:2012, EN 62233:2008, EN 63000:2019-05

Kerns, 10.01.2024 Bruno Zurmühle, CEO



I Dichiarazione CE di conformità

BAK Technology AG, CH-6064 Kerns/Svizzera dichiara che l'apparecchio qui di seguito descritto nei modelli commercializzati risulta conforme alle direttive di armonizzazione comunitarie impartite dalla CEE.

Descrizione dell'apparecchio: Welding machine
 Modello: TechOn
 Direttive CEE: 2014/30/EU, 2014/35/EU, 2006/42/EC, 2011/65/EU
 Norme armonizzate: EN 55014-1:2017 + A11:2020, EN 55014-2:1997+A1:2001+A2:2008, EN 61000-3-2:2014, EN 61000-3-3:2013, EN 60335-1:2012 + AC:2014 + A11:2014 + A13:2017 + A1:2019 + A2:2019 + A14:2019 + A2:2019 + A15:2021, EN 60335-2-45:2002 + A1:2008 + A2:2012, EN 62233:2008, EN 63000:2019-05

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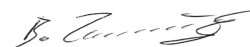


GB Declaration of conformity

BAK Technology AG, CH-6064 Kerns/Switzerland declares that the tool described below, released by us fulfils the provisions of the following EC directive(s).

Description of tool: Welding machine
 Type: TechOn
 EC directives: 2014/30/EU, 2014/35/EU, 2006/42/EC, 2011/65/EU
 Harmonized standards: EN 55014-1:2017 + A11:2020, EN 55014-2:1997+A1:2001+A2:2008, EN 61000-3-2:2014, EN 61000-3-3:2013, EN 60335-1:2012 + AC:2014 + A11:2014 + A13:2017 + A1:2019 + A2:2019 + A14:2019 + A2:2019 + A15:2021, EN 60335-2-45:2002 + A1:2008 + A2:2012, EN 62233:2008, EN 63000:2019-05

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E Declaración CE de conformidad

BAK Technology AG, CH-6064 Kerns/Suiza certifica que el aparato que a continuación se describe cumple con la ejecución que hemos puesto en circulación, con las exigencias de las directrices armonizadas de la CE.

Denominación del aparato: Welding machine
 Modelo: TechOn
 Directrice(s) de la CE: 2014/30/EU, 2014/35/EU, 2006/42/EC, 2011/65/EU
 Normas armonizadas: EN 55014-1:2017 + A11:2020, EN 55014-2:1997+A1:2001+A2:2008, EN 61000-3-2:2014, EN 61000-3-3:2013, EN 60335-1:2012 + AC:2014 + A11:2014 + A13:2017 + A1:2019 + A2:2019 + A14:2019 + A2:2019 + A15:2021, EN 60335-2-45:2002 + A1:2008 + A2:2012, EN 62233:2008, EN 63000:2019-05

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