



# ***Autotherm3***

Hot Gas Welder


**OPERATING INSTRUCTIONS<sup>1</sup>**  
**HOT GAS WELDER**  
**AUTOTHERM 3**


**Provided by:**


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<sup>1</sup> V2.3

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**EC - Declaration of Conformity**



We, Company

**Wegener International GmbH, Ernst-Abbe-Str. 30, 52249  
Eschweiler**

declare within the meaning of the EC - rules

2014/35/EU, Niederspannungsrichtlinie  
2014/30/EU, EMV-Richtlinie

that the product

Device designation                      Hot Gas Welder

Type:    **Autotherm3**


to what this declaration refers, confirms with the following EC –  
guidelines and norms or other normative documents:

DIN EN ISO 12100:2011-03                      DIN EN 349:2008-09  
DIN EN ISO 12100-1:2004-04                      DIN EN ISO 13850:2016-05  
DIN EN ISO 12100-2:2004-04                      DIN EN ISO 7731:2008-12

Device Safety Act  
UVV 22 (Accident Prevention Guidelines) (October 1994)  
Safety engineering requirements of the employers' liability insurance  
association of the German chemicals industry

Subscriber information:

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Technische Leitung

Eschweiler, 11.10.2017

## **CORRECT USE**

The **WEGENER Autotherm3** may only be used for its intended purpose as described in these operating instructions. Any other use will be deemed to be not in accordance with its intended use. The manufacturer cannot be held liable for any resulting damages.

Applications:

- 🔧 **welding** of thermoplastics parts e.g. sheets, pipes etc.
- 🔧 **heating** of plastic parts prior to forming or bending
- 🔧 **drying** of non-flammable, wet surfaces
- 🔧 **removing** paint and varnishes
- 🔧 **break down** of solvent-free glue connections
- 🔧 **generating** of hot air in machines and equipment

## **Safety instructions**

- 🔧 **Unplug from the mains before opening the device!**
- 🔧 **Risk of explosion and fire if used incorrectly!**
- 🔧 **Do not place device on flammable surfaces! Risk of burns from hot burner pipe, nozzle and hot air jet!**
- 🔧 **Only operate the device with the rated mains voltage!**
- 🔧 **Protect the device against moisture and damp!**

Symbols used



This symbol indicates a possible material and/or environmental damage.



Warning about hot surfaces.

### Description of the device

The **WEGENER Autotherm3** hot gas welder has been specially developed for high-precision and top-quality welds. It is easy to use and reliably provides excellent results.

The **WEGENER Autotherm3** has a temperature regulation this enables a constant air temperature.

### Air supply

Since the quality of the air used is very important for the quality of the weld seams we recommend using our blowers (see chapter *Accessoires*) for the air supply. The feed air produced by this blowers is much cleaner and dryer than compressed air from compressors, which not only improves the quality of your weld seams but also prolongs the service life of your device. Combustion residues from oil or other particles on the heating elements can lead to local overheating and thus the destruction of the heating element. Furthermore, the energy costs are only a fraction of the production costs for compressed air.

<b>HINT:</b>	Ensure an air supply of 60 l/min ( $\pm 15$ l/min) for a perfect operation of the <b>Autotherm3</b> !
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### Operating the device



The air supply must be maintained for at least 3 min. after the power is switched off to prevent the device from overheating. Otherwise the handle or control electronics may be damaged by the residual heat in the heating element!  
**CAUTION! Do not operate the device without air supply!**

Before switching the device on, make sure that the air supply (**recommended value: 60 l/min.**) has been provided.

After plug in the main, the current heating element temperature and "off" appear alternately in the LCD display.

You can now call the following functions with the push buttons:

### Switching on

Keep the right key pressed for a moment. The "set" and "on" displays appear in succession.

If the device has been switched off by unplugging the mains or by pressing and holding the left button, the last set value will be saved. After having connected the device again, it has to be started with the „set on“- function.

### Temperature adjustment

Press the left or right key briefly to change the set temperature. "set" appears in the display and then the last set value that was entered. You can now raise the set temperature with the right key or lower it with the left key. Press the key repeatedly at short intervals to change the value in steps, press for slightly longer to change it faster and keep pressed for a very fast adjustment. The value will be accepted around 3 sec. after you release the key.

### Lack of air

If the quantity of air falls below a minimum value (depending on the heating temperature) the heating is switched off and "E001" appears in the display. The fault message has to be reset once the quantity of air returns to within the permissible range. Press the left key until "set" and then "quit" appear. You can then continue working with the device by switching it on (see above).

### **Switching off**

The device can be switched off by either unplugging from the mains or by pressing the left key for a moment ("set" appears, followed by "off"). All values that were last set will be saved.



**It has to be ensured that the air supply keeps connected during cooling down the device. After the device has cooled down, the electrical power supply has to be disconnected (unplug power cable!).**

### **Display Celsius/Fahrenheit**

The temperature can be shown in either degrees Celsius or degrees Fahrenheit. Keep the right key pressed before connecting the device to the power supply and then connect to the mains. The display then shows the temperature in Celsius. Doing the same with the left key will show the temperature in Fahrenheit.



### Setup

- ⌚ Check the device and the connections for damage.
- ⌚ Fit the corresponding welding nozzle (size 14 open-end spanner) and align by turning the device cover.
- ⌚ Connect the **WEGENER Autotherm3** to the air supply.

We recommend our own blower (see chapter *Accessories*). If using compressed air make sure that this is free from water, oil and dust. The use of an air flow sensor is urgently recommended (WEGENER air flow sensor with WEG 06f controller).

**Do not operate the device without air supply.**

- ⌚ Connect to the mains.
- ⌚ Switch on the device (see chapter *Operating the device*).
- ⌚ Adjust the air temperature with the push buttons.
- ⌚ Let the device heat up a few minutes.

The necessary welding temperatures can be found in DVS Guideline 2207 Part 3. Leave the device to heat up for a few minutes.



***The WEGENER Autotherm3 is fitted with a safety cutout that conditionally protects the device against damage if the air supply fails. Nevertheless, the device may not be operated over a longer period of time without air! Leave the device to cool down before switching the air supply off ("Off" switch)! Do not place the device on flammable surfaces, use a suitable holder!***

### Changing the nozzle

Leave the device to cool down, change the nozzle using a size 14 open-end spanner and align by turning the device cover.



***Risk of burns!  
Risk of burning together when a cold nozzle is screwed into a hot device!  
Do not place hot nozzles on flammable surfaces!***

There is an extensive nozzle program for your **WEGENER Autotherm3**

## Warning notices



**The burner pipe can become very hot during operation even when used correctly! Risk of burns!**



The air escaping from the welder can reach a temperature of several hundreds of degrees Celsius so that you must take great care when working with the device, storage during use and servicing work so as to avoid any accidents. It should be pointed out that

- ⚠ the hot air should never be pointed directly at parts of the body, the face or eyes;
- ⚠ the hot air should never be pointed directly at highly flammable or even explosive substances;
- ⚠ great care must be taken adjusting the temperature when working with critical plastics (PVC on account of toxic vapours).
- ⚠ the device must be left to cool down before changing the nozzle;
- ⚠ the burner pipe may still be very hot near the nozzle thread quite a while after the end of work

## **Faults**

The following list should make it easier for you to find and remedy the cause of faults:

<b>Fault</b>	<b>Cause</b>	<b>Remedy</b>
The device does not heat up after 2-3 min.	Air/power switched off	Switch on
	Device not switched on	Switch on
	Power supply defective	Check
	Incorrect quantity of air (Error E0001)	Check or increase
	Faulty heating element	Check (see maintenance)
	Faulty sensor (Error E002)	Send unit for repair
	Faulty control (Error E003)	Send unit for repair
Faulty ratio (Error E004)	Increase air or reduce temperature	

## Maintenance

Keep the device clean, to extend the lifetime.

Please make sure that repairs on your own will exclusively be realized by authorized personnel and using original **WEGENER** spare parts.

### Replacing the heating element



Assembly work may only be carried out after the device has cooled down and when this has been unplugged from the mains!

#### Removal:

Remove the screw at the upper end of the handle

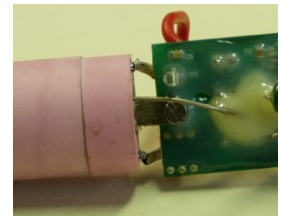
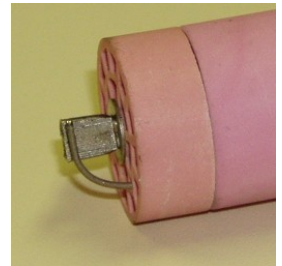
Pull out the cover complete with control system and heating element

Bend the thermal sensor **carefully** with pointed pliers until it is straight

Disconnect the heating element feed line

Unscrew the heating element fastening screw

Pull the heating element out from the front



### Installation:

Push the thermal sensor through the round bore of the element

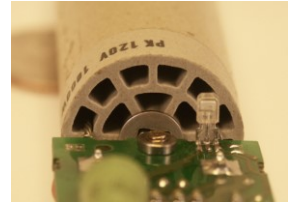
Align and screw the element tight. Do not bend the photodiode!

Disconnect the feed line

Bend the thermal sensor **carefully** (see top photo).

Re-insert the complete unit into the handle

Tighten fastening screw on handle



**Make sure that the element terminal lugs do not touch any components! Risk of short-circuits!**

**You must also make sure to restore the original position of the sensor, otherwise there is the risk of large temperature fluctuations!**

### Warranty

The warranty time is 12 months from date of purchase. During this time we eliminate all defects due to material or fabrication failures free of charge<sup>2</sup>. Parts subject to wear and tear such as heating element and damages due to inappropriate use are excluded.

**NOTE:** *We decline any liability and warranty when using non original **WEGENER** spare parts, self-repair or modification of the device!*

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<sup>2</sup> Our general terms for delivery and sales incl. warranty terms can be found on our website [www.wegenerwelding.de](http://www.wegenerwelding.de) .

**Technical data**

<b>Name:</b>	<b>Hot gas welder</b>	
Type:	<b>Autotherm3</b>	
Serial number:	_____	
Tested by:	_____	
Models 230V:	#25550	#25551
Hose length:	4 m	8 m
Mass (incl. hose) approx.:	1.3 kg	2.0 kg
Nozzle adapter:	M 10	M 10
Heating capacity: 1000 W	1000 W	1000W
Electric power supply:		
Voltage:	230 V 1/N	
Frequency:	50 Hz	
Power control:	Lossfree through wave pack control, temperature sensor in air flow	
Protective class:	II (protective insulation)	
Pneumatic supply:		
Quality:	Water, oil and dust-free	
Rated flow:	60 l/min.	
Min. flow:	45 l/min	

Eschweiler, 11.10.2017

Pictures may differ from product / change reserved

## **Spare parts and accessories**

Our complete range of nozzles you find on our website  
[www.wegenerwelding.de](http://www.wegenerwelding.de) => products => welding => hot air welding => welding nozzles.

Also there is the possibility for customized nozzles.  
Ask us for information about customized nozzles.

On our website you will find all our blowers.  
[www.wegenerwelding.de](http://www.wegenerwelding.de) => products => welding=> hot air welding => blowers.

On our website you will find a lot of accessories for the hot air welders.  
[www.wegenerwelding.de](http://www.wegenerwelding.de) => products => welding => hot air welding => accessories.

A complete spare part list is on our website  
[www.wegenerwelding.de](http://www.wegenerwelding.de) => products => welding => hot air welding => Autotherm3.  
See register Downloads.

