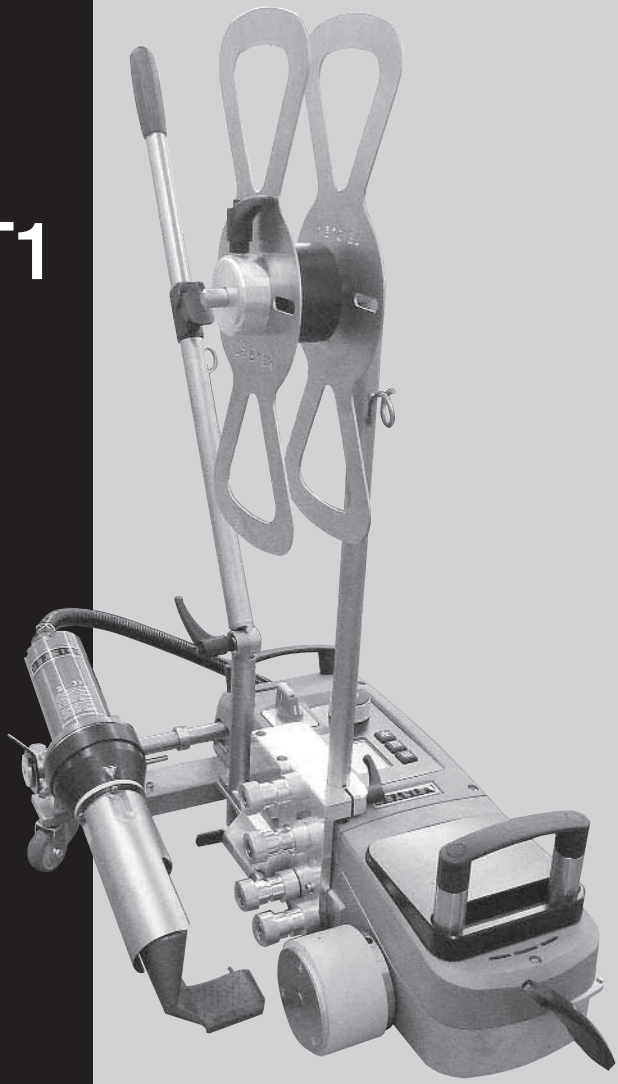
LEISTER®

D GB USA

VARIANT T1

Tape



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Read the operating instructions carefully before starting the device and keep them for future reference.

Leister VARIANT T1
Hot-air welding machine / Tape

Application

For tape welding of tarpaulins made from PVC

- **Tape width 25 mm; anti-vandalism strip**
  – Extruded PVC (homogeneous), with 1.5 mm steel wire inside
  – Tarpaulin material fabric, 2-fold with 1.5 mm steel wire inside
- **Tape width 50 mm; PVC strap tape**
  – Tarpaulin material fabric F = 2400 kg
  – Tarpaulin material fabric F = 1300 kg

Warning

Danger of death when opening the device, as live parts and connections are exposed. Remove the plug from the socket before opening the device.

Risk of fire and explosion if hot-air welding devices are used incorrectly, especially in the vicinity of flammable materials and explosive gases.

Danger – can cause burns! Do not touch the welding nozzle while it is hot. Allow the device to cool.
Do not direct hot-air stream towards people or animals.

Connect device to **power socket with protective earth conductor**. Any break in the protective earth conductor inside or outside the device is dangerous!
Only use extension cables with protective earth conductor!

Caution

Rated voltage stated on the device must correspond to line/mains voltage. N 61000-3-11; $Z_{max} = 0.100\ \Omega + j\ 0.063\ \Omega$. If necessary, consult supply authority. Move out hot-air blower upon **mains failure**.

When using the device on building sites, a **residual current circuit breaker** is essential for the safety of persons there.

The device **must not be left unattended** when in use.
Heat can reach combustible materials which are out of sight.
The device may only be used by **trained personnel** or under their supervision.
Children may not use the device under any circumstances.

Keep **away from wet and damp areas**.

Device must not be lifted at additional weight.

Conformity

Leister Technologies AG, Galileo-Strasse 10, CH-6056 Kaegiswil/Switzerland confirms that this product in the version put into circulation by us, fulfils the requirements of the following EU directives.

Directives :	2006/42, 2004/108, 2006/95, 2011/65
Harmonised standards	EN 12100-1, EN 12100-2, EN 14121-1, EN 55014-1, EN 55014-2, EN 61000-6-2 EN 61000-3-2, EN 61000-3-3, EN 61000-3-11 (Z_{max}) EN 62233, EN 60335-2-45, EN 50581

Kaegiswil, 12.09.2013

Bruno von Wyl, CTO

Beat Mettler, COO2

Disposal

Power tools, accessories and packaging should be recycled. **For EU countries only:** do not dispose of power tools in your household rubbish! According to the European Directive 2002/96 on waste electrical and electronic equipment and its implementation in national law, power tools which can no longer be used must be collected separately and recycled.

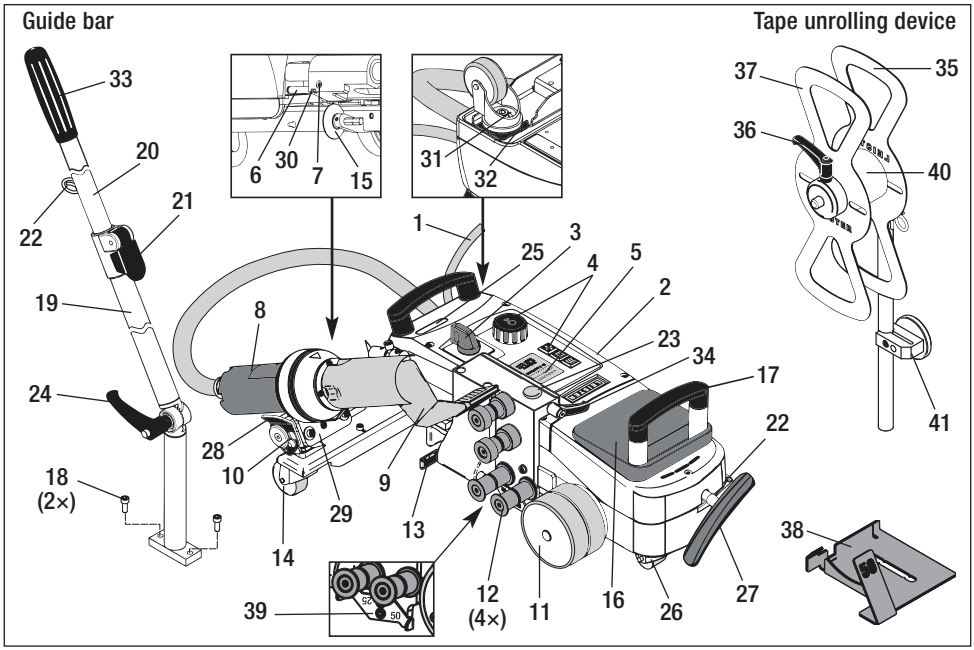
Technical Data

Voltage	**V~**		230 400		
Power consumption	**W**		3680 5700		
Frequency	**Hz**		50 / 60		
Temperature	**°C**	infinitely variable	100 – 620	**°F**	212 – 1148
Drive	**m/min.**	infinitely variable	1.5 – 18	**ft/min**	4.9 – 59.1
Air volume	**l/min.**		40 – 100		
Emission level	**L_{pA} (dB)**		70		
Weight without power supply cord	**kg**		28	**lbs**	61.7
Dimensions L × W × H	**mm**		700 × 415 × 85	**inch**	27.6 × 163 × 3.3
Conformity mark			CE		
Safety standard			GS		
Type of certification			CCA		
Protection class I			⏚		

Connection voltage non-switchable

The right to make technical changes is reserved

Device Description



1 Power supply cord
2 Housing
3 Main switch
4 Controls
5 Display
6 Sensor
7 Set screw for sensor setting
8 Hot-air blower
9 Welding nozzle
10 Locking cam for hot-air blower
11 Pressure roller
12 Tape guide roller
13 Tape tension lever
14 Control roller
15 Guide roller
16 Additional weight
17 Carrying handle
18 Cheese head screw
19 Guide bar bottom
20 Guide bar top
21 Clamping lever for guide bar top
22 Holder for power supply cord
23 Holder for tape unrolling device
24 Screw lever for guide bar bottom
25 Swivel axis adjustment screws
26 Transport roller
27 Handle for lifting device
28 Holding handle
29 Device holder angular adjustment
30 Locking screw for welding position
31 Locking screw for track fine adjustment
32 Lever for track fine adjustment
33 Guide bar handle
34 Screw lever for holder tape unrolling device
35 Tabe holder
36 Screw lever for tape fixation
37 Tape fixation
38 Nozzle gauge for 25 or 50 mm
39 Height positioning sheet
40 Bushing
41 Magnetic tool holder

Controls (4)

e-Drive
The e-Drive serves as a navigator.
It has two functions:

Turn left or right in order to set diverse menus or values

Press to confirm or to activate

Drive
Sets the drive speed

Heating
Sets the welding temperature

Blower
Sets the air volume

Info Icons

The following icons are shown on the display for information.

Welding nozzle cooling down

Device in Standby mode, device is switched off after a time

Contact authorised service centre

▲ Indicates that the temperature is rising

▼ Indicates that the temperature is falling

Progress bar

Active Icons

The following icons are shown on the display and activated by pressing the e-Drive .

Switch on heating and blower (if blower not yet running)

Stop the drive

Start the drive

Automatic cooling down (heating off, blower on)

Up in the structure (back to the previous program)

OK Enter, confirm

Profile Select profile

Save Save changed name

ABC Change profile name

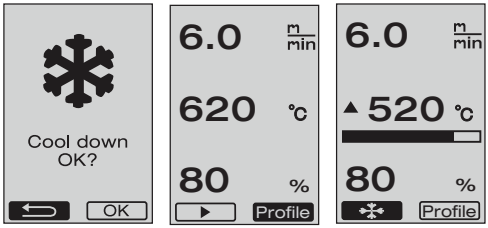
To next screen

To previous screen

Reset Reset daily distance to zero

Info Icons →

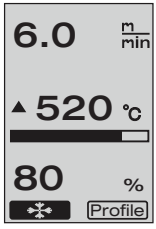
Active Icons →



Quick Info

How do I start the hot-air welding machine VARIANT T1?

1. Establish mains connection to the electrical mains
2. **Main switch (3)** ON
3. Press Drive button → 6.0 m/min Turn e-Drive
4. Press Heating button → 620 °C Turn e-Drive
5. Press Blower button → 100 % Turn e-Drive
6. Press e-Drive Heating up time approx. 1–2 minutes →
7. Carry out a test weld according to the welding instructions of the material manufacturer and national standards or directives. Check test weld.
8. Welding



How do I switch off the hot-air welding machine VARIANT T1?

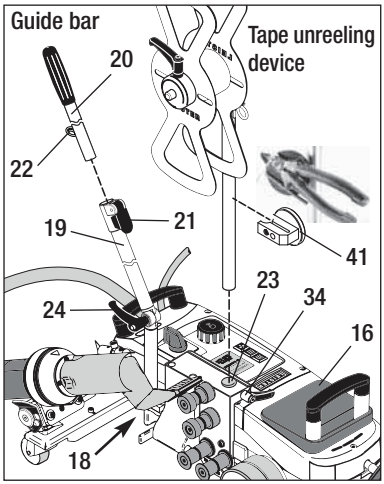
1. Press e-Drive (Fig. 1).
2. Press «**Cool down OK**» e-Drive and allow to cool approx. 4 minutes (Fig. 2). Blower switches off automatically.
3. After **welding nozzle (9)** has cooled down, **main switch (3)** OFF

(Fig. 1)

(Fig. 2)

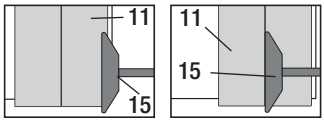
Operational Availability

Before putting into operation, check **power supply cord (1)** and connector as well as extension cable for electrical and mechanical damage.

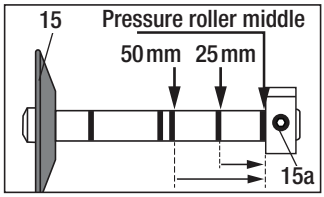


- Check whether **additional weight (16)** is correctly inserted.
- Move **guide bar bottom (19)** to required position using **screw lever (24)**.
  – Push **guide bar top (20)** into **guide bar bottom (19)** and fasten using **clamping lever (21)**.
  – Hang strain relief of **power supply cord (1)** into **holder (22)** on the guide bar or on the carriage.
  – If the guide bar is not required, this can be removed from the hot-air welding machine using the two **cheese head screws (18)**.
- Install tape unreeling device.
  – Move tape unreeling device into **holder (23)** and fasten using **screw lever (34)**.
- Install **magnetic tool holder (41)** and fasten using hexagon screw.

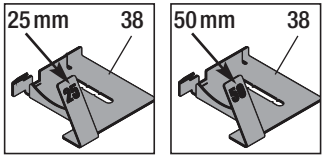
- Check the default setting of **guide roller (15)**. →
  – **Guide roller (15)** must be set at the side or middle to the **pressure roller (11)**.



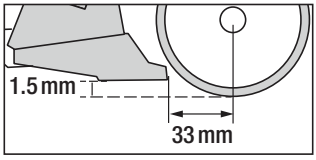
  – As required, set **guide roller (15)** as follows: Loosen hexagon screw of **guide roller (15)**. Depending on the tape width, push **guide roller (15)** into the desired position (see marking).
  Position marking for 50, 25 mm tape width.
  Tighten hexagon screw of **guide roller (15).** →



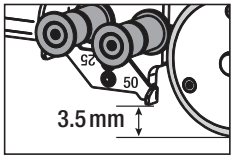
- The default setting for **welding nozzle (9)** is performed at the factory.
- Check the default setting of **welding nozzle (9)**. →
  – The check can be made using the **nozzle gauge (38)** included in the scope of supply or corresponding to **Detail A** and **B**.
  – Setting the **welding nozzle (9) page 41 / 42**.

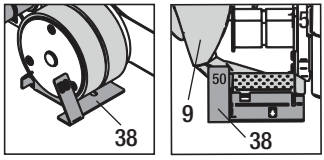


Detail A



Detail B





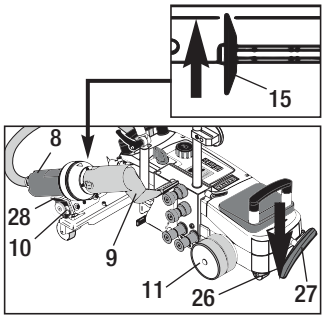
Connect device to nominal voltage. The nominal voltage indicated on the device must correspond to the mains voltage.
Move **hot-air blower (8)** out to parked position if the **mains power fails**.

For switching on and parameter settings of the hot-air welding machine see Work Mode from page 34.

Device Positioning / Transport Readiness

- The material to be welded as well as **welding nozzle (9)** and **pressure roller (11)** must be clean.

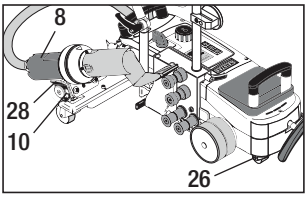
- **hot-air welding machine in transport readiness position**
  – Swivel **guide roller (15)** upwards.
  – Push **hot-air blower (8)** to the right until **locking cam (10)** latches into the recess of **holding handle (28)**. **Hot-air blower (8)** is in parked position.
  – Lower **transport rollers (26)** by swiveling **handle (27)**. This relieves **pressure roller (11)** for transport.
  – The **transport rollers (26)** are now functioning.
- **Move hot-air welding machine to welding position.**

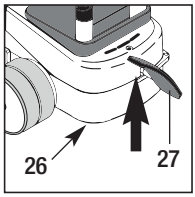


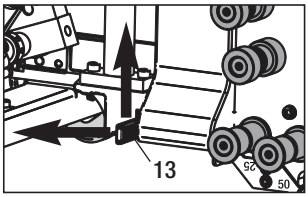
Preparation for inserting tape

Welding nozzle (9) must have cooled down (Chapter 1.8, Cooling).

- **Hot-air blower (8)** must be in parked position.
  – Push **hot-air blower (8)** to the right until **locking cam (10)** latches into the recess of **holding handle (28)**.
  – **Hot-air blower (8)** is in parked position.
- Lower the hot-air welding machine into the welding position using **handle (27)**. The **transport rollers (26)** have no longer function and are thus relieved.
- Relieve **tape tension lever (13)**.

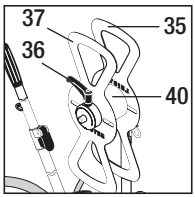


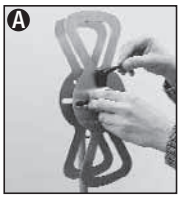


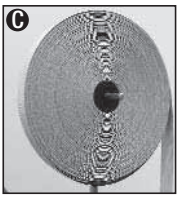


Inserting tape in tape unrolling device

- Insert a welding tape into **tape holder (35)** as follows:
  Ⓐ Loose **screw lever (36)**
  Ⓑ Remove **tape fixation (37)**
  Ⓒ Insert welding tape. Use **bushing (40)** if required.
  Ⓓ Push **tape fixation (37)** onto **tape holder (35)** and tighten **screw lever (36)**.

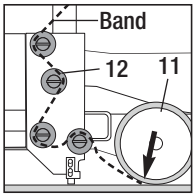




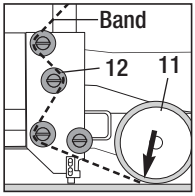


Inserting tape in tape guide roller

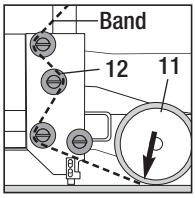
- **Inserting anti-vandalism strip; tape width 25 mm**
  Extruded PVC with 1.5 mm steel wire inside
  – Push anti-vandalism strip between **tape guide rollers (12)** onto **pressure roller (11).** The anti-vandalism strip must not have any contact with the nozzles during welding.



- **Inserting anti-vandalism strip; tape width 25 mm**
  Tarpaulin material fabric 620 g/m2, with 1.5 mm steel wire inside
  – Push anti-vandalism strip between **tape guide rollers (12)** onto **pressure roller (11).** Anti-vandalism strip has nozzle contact during welding.

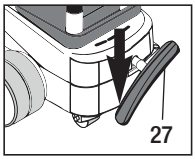


- **Inserting PVC strap tape; tape width 50 mm**
  Tarpaulin material fabric F = 2400kg; tarpaulin material fabric F = 1300kg
  – Push PVC strap tape between **tape guide rollers (12)** onto **pressure roller (11)**. PVC strap tape has nozzle contract during welding.



After inserting tape

- After inserting anti-vandalism strip or PVC strap tape, **pressure roller (11)** must be lifted using **handle (27)**.

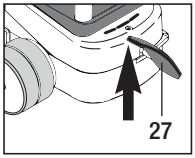


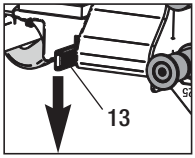
- Pull inserted tape material by hand under **pressure roller (11)** approx. 10 to 20 cm through.

Pressure roller (11)
Tape width 25 mm for anti-vandalism strip

Pressure roller (11)
Tape width 50 mm for PVC strap tape

- Lower hot-air welding machine into the welding position using **handle (27)**.
- Swivel **tape tension lever (13)** downwards to tension the tape.





Performing a test weld

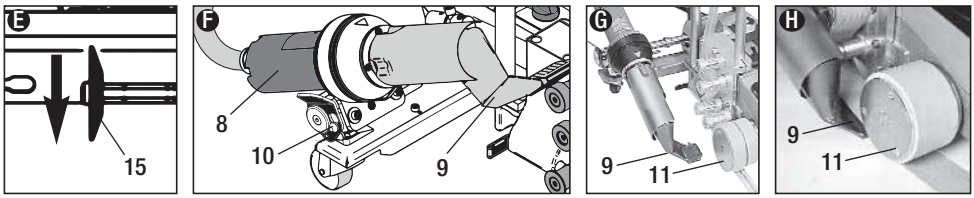
Carry out a test weld according to the welding instruction of the material manufacturer and national standards or guidelines. Check test weld.

Start welding

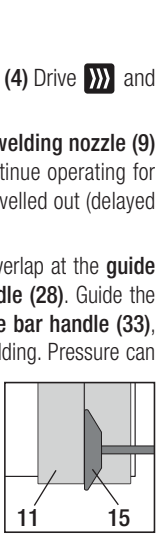
Ⓔ Swivel **guide roller (15)** downwards.
Ⓕ Swivel **hot-air blower (8)** gently open and in until the **locking cam (10)** is pushed out of the recess.
Ⓖ Immediately lower the **hot-air blower (8)**.

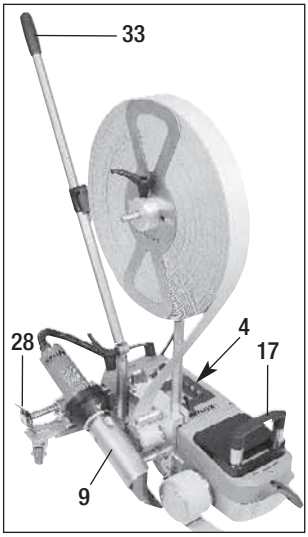
WARNING: If the **hot-air blower (8)** is pushed in too far, the **welding nozzle (9)** and **pressure roller (11)** will come into contact. The **hot-air blower (8)** cannot then be lowered.

Ⓗ Push **hot-air blower (8)** to move **welding nozzle (9)** between tape and tarpaulin material as far as limit stop.



- Drive motor starts automatically.
  No automatic start (Section FAQ, page 40).
- The machine can be started manually with the **controls (4)** Drive and e-Drive .
- If the drive is started via and e-Drive and the **welding nozzle (9)** is then pushed in, the hot-air welding machine will continue operating for about 30 cm after the **welding nozzle (9)** has been swivelled out (delayed deactivation of the drive).
- The hot-air welding machine can be guided along the overlap at the **guide bar handle (33)**, **carrying handle (17)** or **holding handle (28)**. Guide the hot-air welding machine without pressure onto the **guide bar handle (33)**, **carrying handle (17)** or **holding handle (28)** during welding. Pressure can lead to welding faults.
- Observe position of the **guide roller (15)**.





End of welding

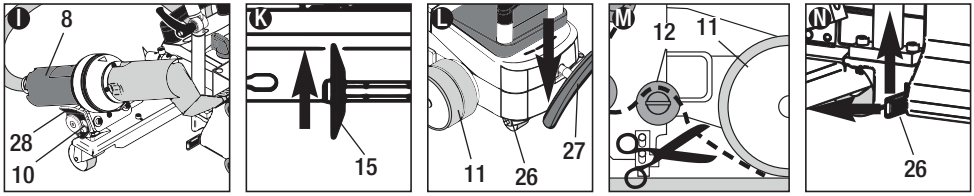
Ⓘ After welding, push the **welding nozzle (9)** out from the welding position to the right using the **hot-air blower (8)** and raise
Push **hot-air blower (8)** to the right until the **locking cam (10)** latches into the recess of the **holding handle (28)**. The **hot-air blower (8)** is in the parked position.

Ⓚ Swivel **guide roller (15)** upwards.

Ⓛ Lowering the **transport rollers (26)** by swivelling the **handle (27)**. The **pressure roller (11)** and **diverting roller (12)** are relieved for transport in this way.

Ⓜ Separate tape between **pressure roller (11)** and **tape guide rollers (12)**.

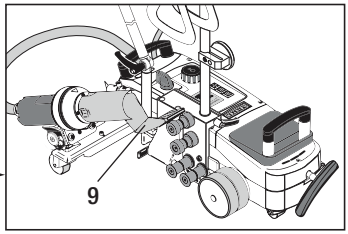
Ⓝ Relieve **tape tension lever (13).**



- **The hot-air welding machine can be moved into the welding position again.**
- After finishing the welding work using the e-Drive (press twice) switch off the heating; this cools down the **welding nozzle (9)** and the blower switches off automatically after approx. 4 minutes (Section 1.8, Cooling).
- Turn off main **switch (3)** OFF

230 400 Disconnect power supply cord from power supply.

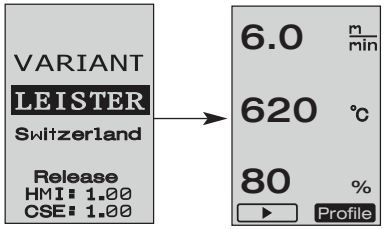
- Clean **welding nozzle (9)** with brass brush.
- **hot-air welding machine is in transport readiness position.**



Button Combinations

Main switch ON

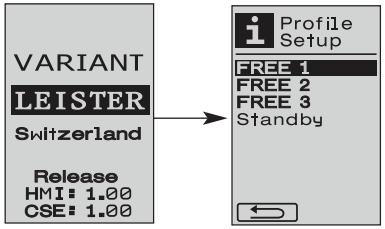
ON



Work Mode
Section 1

Keep Drive and Heating buttons pressed with main switch ON at the same time

ON

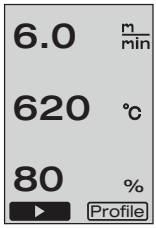


Profile Setup
Section 2

1. Work Mode

1.1 Setpoint Value Display (after switching on the device)

Main switch (3) ON



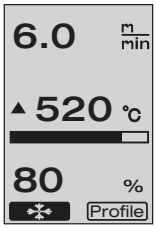
(Fig. 3)

- After switching on the device, the values last set appear on the **display (5)** (Fig. 3).
- The heating, blower and drive are switched off in this menu.
- Here the user can perform all settings described in the following sections using the **controls (4)**.
- If, however, the heating element temperature is greater than 80°C when switching on, the display will immediately change to the Cool Down mode (Section 1.8 Cooling) in which the blower is always operated at full power, thus cooling down the **welding nozzle (9)**. You can change back to the Work Mode from this mode at any time by pressing the e-Drive.
- If the heating element temperature reaches 60°C during cooling, the blower will continue to operate for 2 minutes and then switch off automatically. The **display (5)** changes back to the Setpoint Value display (Fig. 3).
- Turning the e-Drive to Profiles allows various welding profiles to be selected (Fig. 4; Section 1.7 Selecting Profiles).

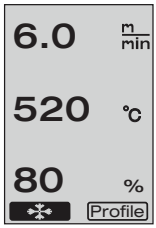
(Fig. 4)

1.2 Work display

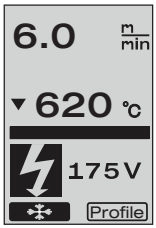
- Pressing the e-Drive starts the heating and blower and the Setpoint Value display changes to the Work display.
- When the **welding nozzle (9)** is heating up, this is indicated on the **display (5)** with a progress bar, arrow ▲ (up) and the actual value of the welding temperature (flashing) (Fig. 5).
  Once the setpoint value of the welding temperature is reached, the arrow and progress bar will no longer be displayed (Fig. 6).
- If the mains voltage is outside (+/- 15%) the specified nominal voltage, the symbol will be displayed alternately with the measured undervoltage /overvoltage and the set air volume. If the air volume is 100 %, the symbol will be displayed flashing with the measured undervoltage /overvoltage (Fig. 7).
  (Only possible with VARIANT T1 230 V~).



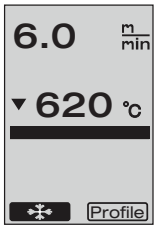
(Fig. 5)



(Fig. 6)



(Fig. 7)

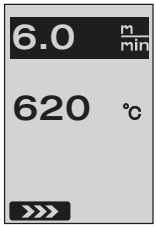


(Fig. 8)

Undervoltage/Overvoltage can affect the welding results!

- If no button is pressed after a definite time (**welding nozzle (9)** NOT in welding position), the Standby menu will be displayed (Section 1.9 Standby).
- If the **welding nozzle (9)** is in the parked position, the menus Cool Down (Section 1.8 Cooling) or Profiles (Section 1.7 Selecting Profiles) can be selected by turning the e-Drive.
- If the **welding nozzle (9)** is swivelled in, the two menu items Profile will disappear on the **display (5)** and can no longer be selected.
- While the **welding nozzle (9)** is cooling down, this is indicated with a filled out progress bar, arrow ▼ (down) and flashing actual value of the welding temperature on the **display (5)** (Fig. 8).

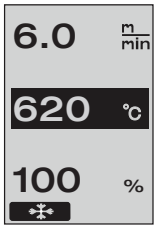
1.3 Setting the drive speed



(Fig. 9)

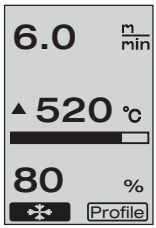
- The drive speed can be adapted with the Drive button. This can be set by turning the e-Drive in 0.1 m/min. increments from 1.5 m/min. to 18.0 m/min. This setting can be carried out with the drive switched on or switched off. If no entry is made by the **controls (4)** within 3 seconds, the new drive speed will be accepted.
  The Setpoint Value display or Cool Down menu appears on the **display (5)** (Fig. 9).
- If the **welding nozzle (9)** is not in the welding position, the (Start) symbol will appear at the bottom left of the **display (5)**.
- The drive can be switched on by pressing the e-Drive after which the (Stop) symbol will appear. The drive speed can be adjusted directly by turning the e-Drive .
- Pressing the e-Drive again executes the Stop command, which switches off the drive. The Setpoint Value display or Cool Down menu appears on the display.
- If the Drive button is pressed for 3 seconds, the display will change to another menu (see Section 1.6 Length Measurement, Blower and Drive Counter).
- You can change to the relevant menu by pressing the Heating or Blower button.

1.4 Setting the welding temperature



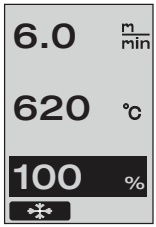
(Fig. 10)

- The welding temperature can be changed with the Heating button. The welding temperature can be set in 10°C increments from 100°C to 620°C by turning the e-Drive . The setting is accepted after 3 seconds, as long as no button is pressed within these 3 seconds (Fig. 10).
- If this menu is called up from the Setpoint Value display, the heating and blower can be started by pressing the e-Drive . Once the heating is switched on, the Cool Down menu can be selected (Section 1.8 Cooling) (Fig. 11).
- If the Heating button is pressed for 3 seconds, the mains voltage will appear below the drive speed. This call-up is only possible from the Work display (Section 1.2).
  (Only possible with VARIANT T1 230 V~).
- You can change to the relevant menu by pressing the Drive or Blower button.



(Fig. 11)

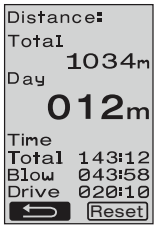
1.5 Setting the air volume



(Fig. 12)

- The air volume can be changed with the Blower button. The air volume can be set in 5% increments from 40% to 100% by turning the e-Drive. The setting is accepted after 3 seconds, as long as no button is pressed within these 3 seconds. If the air volume is set to 100%, no information will appear on the **display (5)** (Fig. 12).
- If this menu is called up from the Setpoint Value display, the heating and blower can be started by pressing the e-Drive.
- The Cool Down menu can be selected by pressing the e-Drive (Section 1.8 Cooling).
- You can change to the relevant menu using the Drive or Heating button.

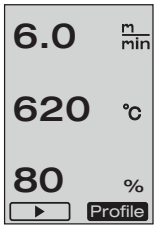
1.6 Length Measurement, Blower and Drive Counter



(Fig. 13)

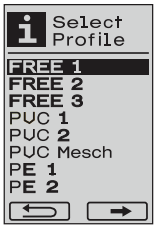
- This menu (Fig. 13) appears if the Drive button is pressed for at least 3 seconds.
- The menu displays all operating times and the distance which the device has travelled since being switched on. The total distance (here: 1034 m) cannot be changed and shows the entire path taken since being put into operation.
- The daily distance (here: 012 m) is not reset automatically, but instead can be reset to zero by the user via Reset by pressing the e-Drive.
- The Time values concern the operating time for the individual components of the device. The time is assigned to the blower «Blow» (here: 043:58) and the drive «Drive» (here: 020:10). The «Total» time refers to the operating time. It counts the hours and minutes (here: 143:12) during which the **main switch (3)** is switched on.
- If the Back arrow is selected by pressing the e-Drive, you will be taken back to the menu from which the Drive button has been pressed.

1.7 Selecting Profiles

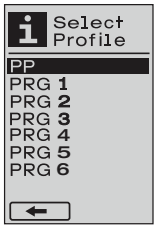


(Fig. 14)

- If the display Profile at the right bottom of the **display (5)** is activated, profiles can be loaded by pressing the e-Drive. The display «Select Profile» then appears. A profile can be selected by turning the e-Drive. The profiles FREE 1, 2 and 3 can be defined by users themselves (see Section 2 Profile Setup). All other profiles have permanently assigned values and cannot be defined by the user (Fig. 14).
- Turning the e-Drive activates left or right arrows on the **display (5)** at the bottom.
  Right arrow by pressing the e-Drive to the next page (Fig. 15).
  Left arrow by pressing the e-Drive to the previous page (Fig. 16).
- If the Back arrow is activated by turning the e-Drive, you will be taken back to the menu from which the Profiles menu has been selected by pressing the e-Drive (Fig. 15).



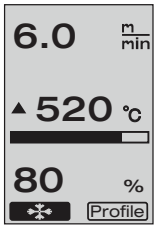
(Fig. 15)



(Fig. 16)

Carry out a test weld according to the welding instruction of the material manufacturer and national standards or guidelines. Check test weld.

1.8 Cooling



(Fig. 17)

- If the symbol is selected by pressing the e-Drive (Fig. 17), the menu **«Cool down OK?»** will appear (Fig. 18). Pressing the e-Drive activates the symbol OK at the right bottom of the **display (5)**. This initiates the cooling process.
- During the cooling down process, the air volume is increased to 100% and the instantaneous welding temperature displayed (Fig. 19).
  If the welding temperature of 60°C is fallen below, the blower will continue to operate for 2 minutes and will automatically switch off after this time expires.
  The display changes to the Setpoint Value display.
- If the e-Drive is pressed during the cooling process, the heating will start and the Work Display will appear on the **display (5)** (see Section 1.2 Work Display).
- If the Cool Down menu is active, the drive can be switched on/off manually via the Drive button.
  The Heating and Blower buttons do not have any function.

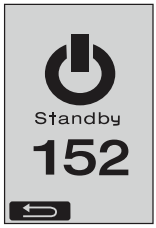
(Fig. 18)

(Fig. 19)

1. Work Mode

1.9 Standby

- If the **welding nozzle (9)** is not in the welding position and no button is pressed during a standby time defined by the user, Cool Down mode will automatically start after the countdown has passed (Fig. 20).
  The cooling down process is initiated.
- If the e-Drive is pressed before the countdown has passed (180 seconds), the **display (5)** will change to Work Display (see Section 1.2 Work Display).
- Setting the standby time (Section 2.3 Standby Setup).



(Fig. 20)

1.10 Error messages

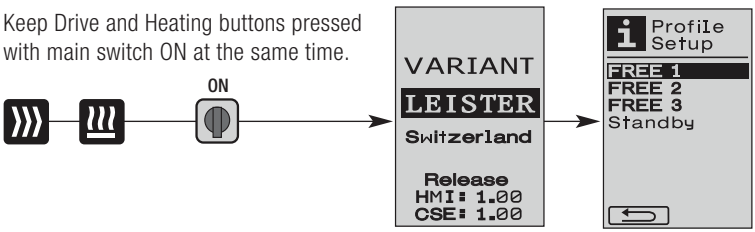
- If a malfunction occurs in the hot-air welding machine VARIANT T1, a message accompanied by an error code will appear on the **display (5)**. This code stands for a more precise definition of the error which can be seen in the list below.
- Separate symbols are displayed for error 02 and error 40.
- In case of all other errors, the spanner is displayed for the service prompt.

Error	Type of error
Err00	Control electronics defective
Err01	Interruption or short-circuit of the temperature probe
Err02	Heating element / Electronics defective (interruption in one/both winding(s))
Err04	Triac defective (one or both Triacs are defective)
Err08	Blower motor defective
Err40	Undervoltage 25% (mains voltage 75%) only VARIANT T1 230 V~

2. Profile Setup

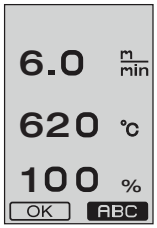
2.1 Profile Setup Button Combination

Keep Drive and Heating buttons pressed with main switch ON at the same time.



2.2 Creating Profiles

(Fig. 21)



(Fig. 22)

- The Profile Setup allows you to create 3 individual profiles for which the name, and all three parameters Drive , Heating , Blower can be freely set and then saved by pressing the e-Drive (Fig. 21).
- The various menu items can be selected using the **controls (4)**. Pressing the e-Drive will take you back to the Profile Setup selection.
- If the ABC ABC symbol is activated by turning the e-Drive , you will be taken back to the menu Profile Name by pressing the e-Drive (Fig. 22).
- In the Profile Name menu, you can turn the e-Drive to select the characters _ / . / A to Z / 0 to 9, as well as the left or right arrows and the symbols Save Save or Back .

(Fig. 23)

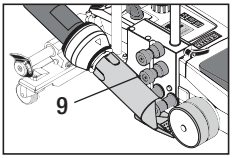
- Change profile name
  - If you turn the e-Drive you can select the left or right arrows. If the right arrow is selected by pressing the e-Drive , the position in the profile name will jump one character (black) to the right. If you activate the left arrow by pressing the e-Drive , the position in the profile name will jump one character (black) to the left (Fig 23).
  - Turning the e-Drive allows the required character (_ / . / A to Z / 0 to 9) to be selected. If you press the e-Drive the character shown black in the profile name will now be replaced by the character previous selected.
- Save or reject profile name
  - If the Save Save symbol is selected by turning the e-Drive , the profile name will be saved by pressing the e-Drive .
  - If the Back symbol is selected by turning the e-Drive , the profile name will be rejected (not saved) by pressing the e-Drive .

Carry out a test weld according to the welding instructions of the material manufacturer and national standards or directives. Check test weld.

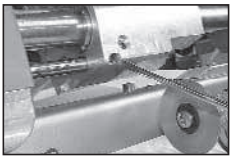
2.3 Standby Setup

- The standby times defines the time that has to pass (no buttons pressed, **welding nozzle (9)** not in welding position) before the cooling process (see Section 1.8 Cooling) is automatically triggered.
  - Turning the e-Drive allows the time to be set from 5 to 120 minutes. 40 minutes are set at the factory.
- Pressing the e-Drive will take you back to the Profile Setup selection.

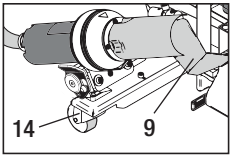
- Machine switches off automatically
  – The machine is automatically switched off after a set time with Standby mode (factory setting 40 minutes). If needed, increase standby time (Page 39, 2. Profile Setup, 2.3 Standby Setup).
- Quality of the weld is defective
  – Check drive speed, welding temperature and air volume
  – Clean **welding nozzle (9)** with wire brush
  – **Welding nozzle (9)** is set incorrectly
  – Carry out the adjustment of the **welding nozzle (9)**, see page 41 / 42.

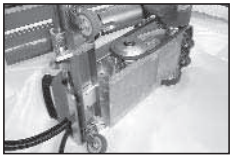


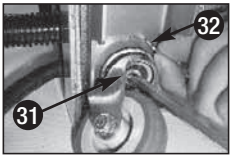
- Failure to reach the set temperature (temperature display flashes)
  – Check mains voltage
  – Reduce air volume
  – Reduce temperature
- Hot-air blower does not lock into welding position
  – The ball pressure element must be set as follows:
  – Allow **welding nozzle (9)** to cool (Page 37, 1. Work Mode, 1.8 Cooling)
  – Move **welding nozzle (9)** into welding position
  – Tighten **screw (30)** slightly with a screwdriver, then turn **screw (30)** back approx. 1/2 revolution.



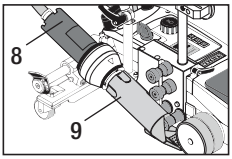
- Hot-air welding machine moves away to the sides.
  – Carry out track fine adjustment of the **control roller (14)** as follows:
  – Allow **welding nozzle (9)** to cool (Page 37, 1. Work Mode, 1.8 Cooling)
  – Turn off **main switch (3)** OFF
  – Disconnect power supply cord from power supply
  – Remove **additional weight (16)**
  – Tilt welding machine to the side
  – Loosen **locking screw for track fine adjustment (31)** and push **lever for track fine adjustment (32)** into the required position
  – Tighten **locking screw for track fine adjustment (31)**
  – Move hot-air welding machine into welding position.
  – Insert **additional weight (16)**
  – Restart hot-air welding machine
  – Perform test weld

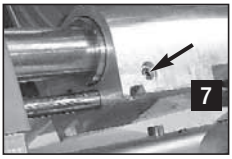






- Startup mechanism not working
  If the drive motor does not start automatically after moving in the **welding nozzle (9)**, the **sensor (6)** is possibly set incorrectly.
  – Set **sensor (6)** as follows:
  – Allow **welding nozzle (9)** to cool (Page 37, 1. Work Mode, 1.8 Cooling)
  – Turn off **main switch (3)** OFF
  – Using the **hot-air blower (8)**, swivel the **welding nozzle (9)** into the welding position and latch in.
  – Carry out setting for the **sensor (6)** at **set screw (7)** with Allen key; **IMPORTANT: Sensing distance 0.2 – 0.5mm**
  – Check function





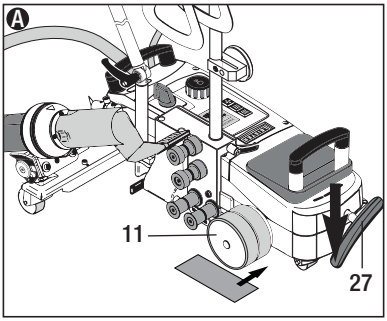
If the drive motor still does not start automatically, the service centre must be contacted.

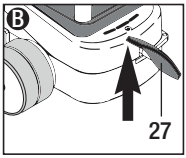
Setting welding nozzle

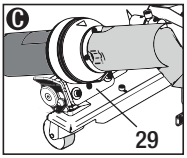
Welding nozzle (9) must have cooled down (Chapter 1.8, Cooling).

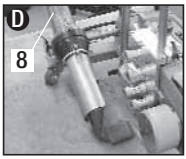
Angular adjustment

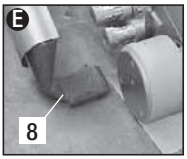
Ⓐ Move hot-air welding machine into transport readiness position and push tape material below **pressure roller (11)**.
Ⓑ Lower hot-air welding machine using **handle (27).**
Ⓒ Loosen hexagon socket head screws on **device holder (29)**.
Ⓓ Lower **hot-air blower (8).**
Ⓔ **Welding nozzle (9)** must lie flat on the base.
Ⓕ Correct the angle by means of swivel movements at **hot-air blower (8)**.
Ⓒ Tighten hexagon socket head screws on **device holder (29)**.

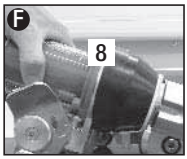






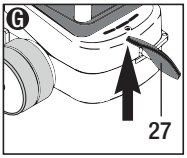


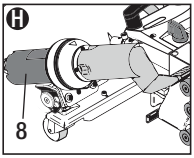


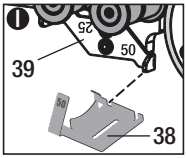


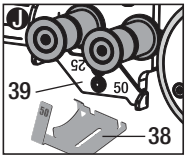
Setting height with nozzle gauge

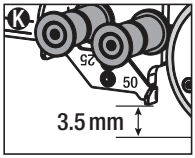
Ⓖ Lower hot-air welding machine using **handle (27)**.
Ⓗ **Hot-air blower (8**) must be in parked position.
Ⓘ Move **nozzle gauge (38)** below **height positioning sheet (39)** into position. Loosen the two screws on **height positioning sheet (39).** Push **height positioning sheet (39)** downwards as far as limit stop.
Ⓙ Tighten the two screws on **height positioning sheet (39)** and remove n**ozzle gauge (38)**.
Ⓚ **Setting height without nozzle gauge.**









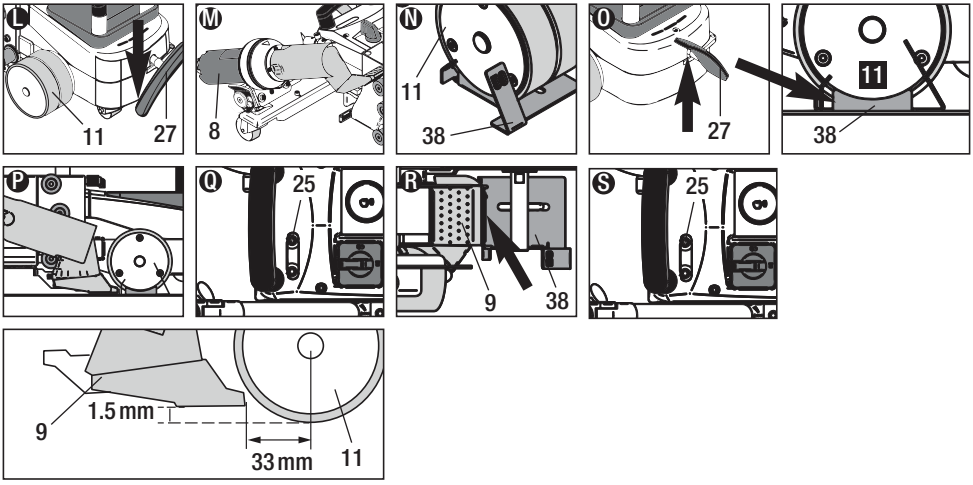


Setting welding nozzle

Setting distance between welding nozzle (9) and pressure roller (11) with nozzle gauge

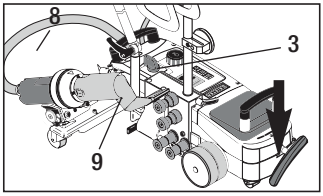
Ⓛ Lift **pressure roller (11)** using **handle (27)**.
Ⓜ **Hot-air blower (8)** must be in parked position.
Ⓝ Push **nozzle gauge (38)** below **pressure roller (11)**.
Ⓞ Carefully lower **pressure roller (11)** onto **nozzle gauge (38)** using **handle (27)**.
Ⓟ Move **hot-air blower (8)** into welding position.
Ⓠ Loosen swivel axis **adjustment screws (25)**.
Ⓡ Align **hot-air blower (8)** parallel to **nozzle gauge (38)**.
Ⓢ Tighten **swivel axis adjustment screws (25)**.
Remove **nozzle gauge (38) a**nd perform test weld.

Ⓣ Setting distance between **welding nozzle (9)** and **pressure roller (11)** without nozzle gauge.



Tape conversion 50 mm /25 mm

Welding nozzle (9) must have cooled down (Chapter 1.8, Cooling).



- Turn off main **switch (3)** OFF

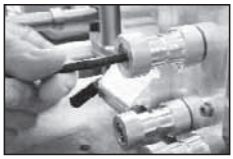
230 400 Disconnect power supply cord from power supply.

- Clean **welding nozzle (9)** with brass brush.
- **hot-air welding machine is in transport readiness position.**

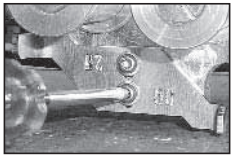
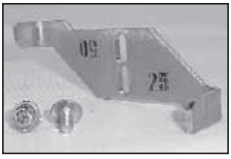
Disassembly from 1. to 4.

Assembly 4. to 1.

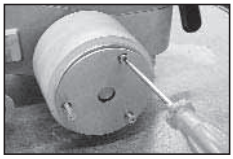
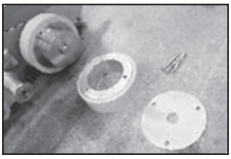
1. Replace **tape guide rollers (15)**.



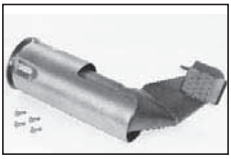
2. Remove **height positioning sheet (39)**, turn, install.

3. Remove **pressure roller (11)**, turn, install.

4. Replace **welding nozzle (9)**.
Adjusting the welding nozzle page 41 / 42

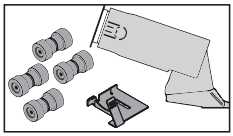


Leister VARIANT T1 / Tape Versions

Article no. 148.963 VARIANT T1, Tape width 25 mm, 230V / 3680W
Article no. 148.964 VARIANT T1, Tape width 50mm, 230 V / 3680 W
Article no. 148.965 VARIANT T1, Tape width 25 mm, 400 V / 5700 W
Article no. 148.966 VARIANT T1, Tape width 50 mm, 400 V / 5700 W

Accessories

For safety and technical reasons, only Leister accessories may be used.



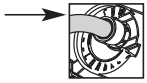
Article no. 148.961 Kit for tape width 25 mm
Article no. 148.962 Kit for tape width 50 mm

Training

- Leister Technologies AG and its authorised service points offer free welding courses and training events. Information at www.leister.com.

Maintenance

- The air inlet on the **hot-air blower (8)** must be cleaned with a brush if soiled.
- Clean **welding nozzle (9)** with brass brush.
- Check **power supply cord (1)** and plug for electrical and mechanical damage.



Service and Repairs

- If the drive counter reaches 400 h or the blower counter reaches 2000 h, the message **«Maintenance servicing»** will appear on the **display (5)** the next time the **main switch (3)** is switched on. This message is displayed for 10 seconds and cannot be skipped by the **controls (4)**.
- Repairs should only be carried out by authorised **Leister service centres**. These guarantee a professional, reliable **repair service within 24 hours**, using original replacement parts according to the circuit diagrams and replacement part lists.

Warranty

- For this tool, we generally provide a warranty in accordance with the statutory / country-specific regulations from the date of purchase (verified by invoice or delivery document). Damage that has occurred will be corrected by replacement or repair. Heating elements are excluded from this warranty.
- Additional claims shall be excluded, subject to statutory regulations.
- Damage caused by normal wear, overloading or improper handling is excluded from the warranty.
- Warranty claims will be rejected for tools that have been altered or changed by the purchaser.