

LEISTER®

English

VARIANT T1



Leister Technologies AG

Galileo-Strasse 10

6056 Kaegiswil

Switzerland

+41 41 662 74 74

leister@leister.com

www.leister.com

Contents

1. Application	3
2. Technical Data	5
3. Device Description	6
4. Info Icons	7
4.1 Active Icons	7
4.2 Quick Info	7
5. Operational Availability	8
5.1 Operational Availability	8
5.2 Device Positioning	8
6. Welding Workflow	9
7. Transport Readiness	10
8. Button Combinations	10
9. Work Mode	11
9.1 Setpoint Value Display (after switching on the device)	11
9.2 Work display	11
9.3 Setting the drive speed	12
9.4 Setting the welding temperature	12
9.5 Setting the air volume	13
9.6 Length Measurement, Blower and Drive Counter	13
9.7 Selecting Profiles	14
9.8 Cooling	14
9.9 Standby	15
9.10 Error messages	15
10. Profile Setup	15
10.1 Profile Setup Button Combination	15
10.2 Creating Profiles	16
10.3 Standby Setup	16
11. FAQ Error – Cause – Remedy	17
12. Welding Applications	19
13. Leister VARIANT T1 Versions	20
14. Accessories	20
15. Training	20
16. Maintenance	20
17. Service and Repairs	20
18. Disposal	21
19. Conformity	21

Congratulations on your purchase of a hot-air welding machine VARIANT T1

You have opted for a first-class hot-air welding machine made of high-quality materials. This device has been developed and manufactured in accordance with the latest welding technologies. Every VARIANT T1 undergoes stringent quality checks before leaving the factory in Switzerland.



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

VARIANT T1 Hot-air welding machine



You can find more information on the VARIANT T1 at www.leister.com

1. Application

The device should be used only in well-ventilated rooms. If necessary, work should be carried out with a fume hood or personal protective equipment. Take care to ensure that no material burns during the welding process. Check with the materials manufacturer regarding additives hazardous to health. The statutory regulations regarding health protection of the respective country are to be applied.

- Handheld hot-air welding machine for overlap, hem and piping welding of tarpaulin material (PVC and similar materials).
- **Processing only in well ventilated rooms**



Warning



Hazardous voltage – danger to life

Life-threatening electric shock possible due to electrical voltage. The device is only to be connected to sockets and extension cables with a protective earth conductor. It must be protected from moisture and humidity. Prior to commissioning, check the power cord, the plug and the extension cable for any electrical or mechanical damages. The device may only be opened by instructed, qualified personnel.



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.



Caution



Rated voltage stated on the device must correspond to line/mains voltage. N 61000-3-11; $Z_{\max} = 0.164 \Omega + j 0.102 \Omega$. If necessary, consultate 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.



Device must not be lifted at additional weight.

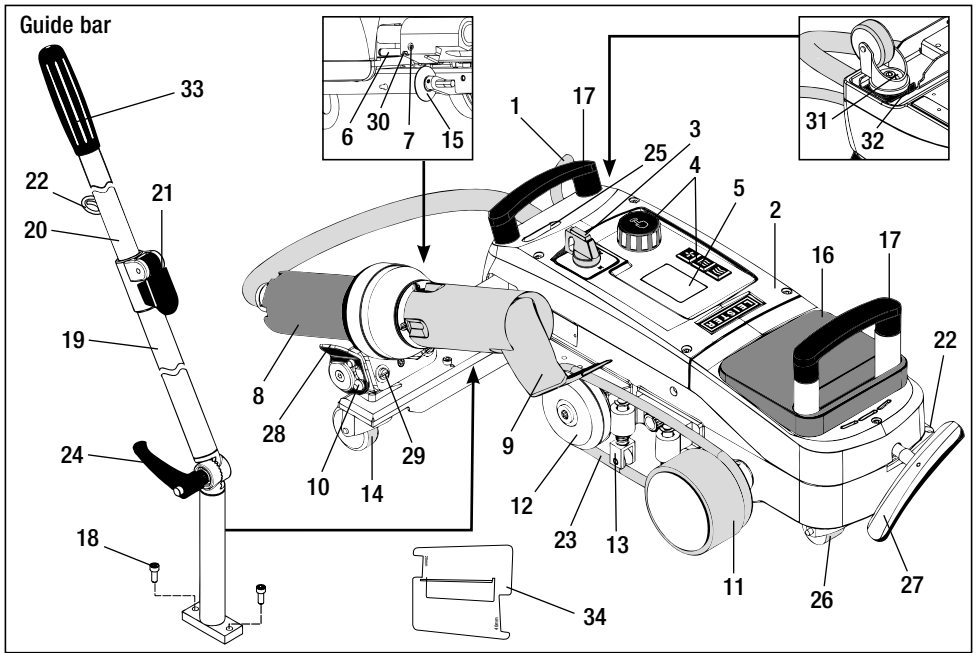
2. Technical Data

Voltage	V~	200	230	400 (2LNPE)	V~	200	230	400 (2LNPE)
Power consumption	W	4200	3680	5700	W	4200	3680	5700
Frequency	Hz	50/60			Hz	50/60		
Temperature	°C	100 – 620 infinitely variable			°F	212 – 1148 infinitely variable		
Drive	m/min.	1.5 – 18 infinitely variable			ft/min	4.9 – 59.1 infinitely variable		
Air volume	%	40 – 100			%	40 – 100		
Emission level	L_{pA} (dB)	70			L_{pA} (dB)	70		
Weight	kg	22			lbs	48.5		
without power supply cord								
Dimensions L × W × H	mm	700 × 400 × 230			inch	27.55 × 15.74 × 9.05		
Conformity mark		CE				CE		
Protection class I								

Connection voltage non-switchable

The right to make technical changes is reserved

3. Device Description



- | | | |
|-----------------------------------|-------------------------------------|--|
| 1 Power supply cord | 11 Pressure roller | 23 Round belt |
| 2 Housing | 12 Diverting roller | 24 Screw lever for guide bar bottom |
| 3 Main switch | 13 Hold-down device | 25 Swivel axis adjustment screws |
| 4 Controls | 14 Control roller | 26 Transport roller |
| 5 Display | 15 Guide roller | 27 Handle for lifting device |
| 6 Sensor | 16 Additional weight | 28 Holding handle |
| 7 Set screw for sensor setting | 17 Carrying handle | 29 Device holder angular adjustment |
| 8 Hot-air blower | 18 Cheese head screw | 30 Locking screw for welding position |
| 9 Welding nozzle | 19 Guide bar bottom | 31 Locking screw for track fine adjustment |
| 10 Locking cam for hot-air blower | 20 Guide bar top | 32 Lever for track fine adjustment |
| | 21 Clamping lever for guide bar top | 33 Guide bar handle |
| | 22 Holder for power supply cord | 34 Nozzle gauge |

Main switch (3)



For switching the hot-air welding machine VARIANT T1 On / Off

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

4. 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

4.1 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 programme)



Enter, confirm



Select profile



Save changed name



Change profile name



To next screen



To next screen

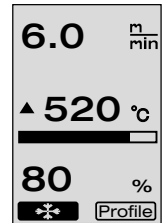
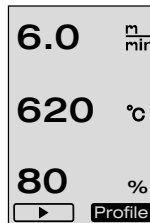
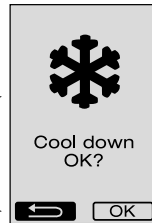


Reset daily distance to zero

Info Icons














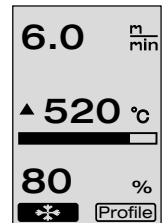
Active Icons






4.2 Quick Info

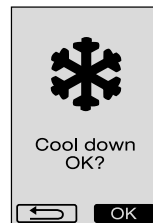
How do I start the hot-air welding machine VARIANT T1?

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

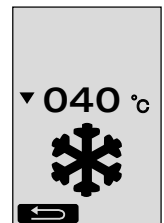


How do I switch off the hot-air welding machine VARIANT T1?

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



(Fig. 1)

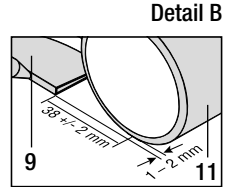
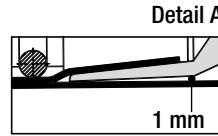
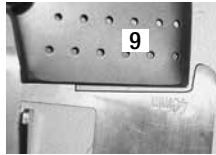
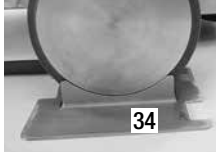


(Fig. 2)

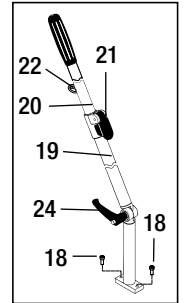
5. Operational Availability

5.1 Operational Availability

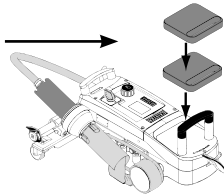
- Before putting into operation, check **power supply cord (1)** and connector as well as extension cable for electrical and mechanical damage.
- The default setting for the **welding nozzle (9)** is made at the factory.
- Check the default setting of the **welding nozzle (9)**.
 - The check can be made using the **nozzle gauge (34)** or corresponding to Detail A and B.



- Install **guide bar with cheese head screws (18)**.
 - Move the **guide bar bottom (19)** into the required position using the **screw lever (24)** and the **guide bar top (20)** using the **clamping lever (21)**.
 - Hang strain relief of **power supply cord (1)** into **holder (22)** on the guide bar or on the carriage.



- Insert **additional weight (16)** (max. two additional weights).



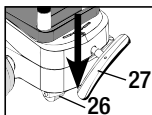
Connect device to nominal voltage. The nominal voltage indicated on the device must correspond to the mains voltage.

Move **hot-air blower (8)** out to parked position if the **mains power fails**.

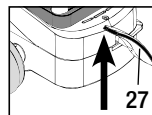
5.2 Device Positioning

- The tarpaulin material must be clean between the overlap and on the upper and lower side.
- The **welding nozzle (9)**, **pressure roller (11)**, **diverting roller (12)**, **round belt (23)** and **hold-down device (13)** must be clean.
- If the hot-air welding machine is not ready for transport, lift up device using the **handle (27)** of the lifting device. The **transport rollers (26)** are now functioning.
- Move hot-air welding machine to welding position.
- Lower the hot-air welding machine into the welding position with the **handle (27)**. The **transport rollers (26)** no longer function and are thus relieved.
- Swivel **guide roller (15)** downwards.
- The **guide roller (15)** must be parallel to the **pressure roller (11)** (Detail C).

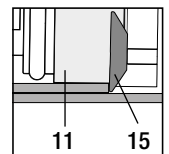
Transport readiness
Handle left



Welding position
Handle right



Detail C



6. Welding Workflow

• Preparation



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

- Set welding parameters for drive, heating and blower (see Section 9, Work Mode).
- Welding temperature must be reached (heating up time approx. 1–2 min.).

• 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.

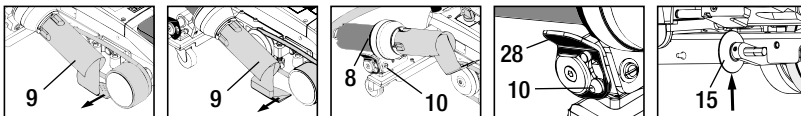
- Lift upper tarpaulin material slightly in the area of the guide roller and move the **welding nozzle (9)** between the overlapping tarpaulins as far as the limit stop by pushing the **hot-air blower (8)**.



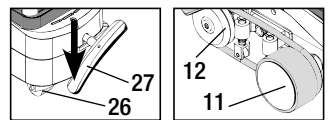
- Drive motor starts automatically. No automatic start (Section FAQ, page 35).
- The machine can be started manually with the **controls (4)** Drive  and e-Drive .
- If the drive is started via  and e-Drive  and the **welding nozzle (9)** is then pushed in, the hot-air welding machine will continue operating 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.



- 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 9.8, Cooling).
- Turn off main **switch (3)** OFF .

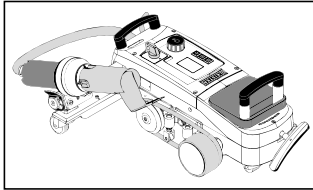
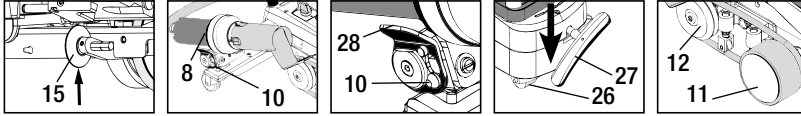


Disconnect power supply cord from power supply.

- Clean **welding nozzle (9)** with brass brush.

7. Transport Readiness

- Swivel **guide roller (15)** upwards.
- 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.
- Lower the **transport rollers (26)** by swivelling the **handle (27)**. The **pressure roller (11)** and **diverting roller (12)** are relieved for transport in this way.

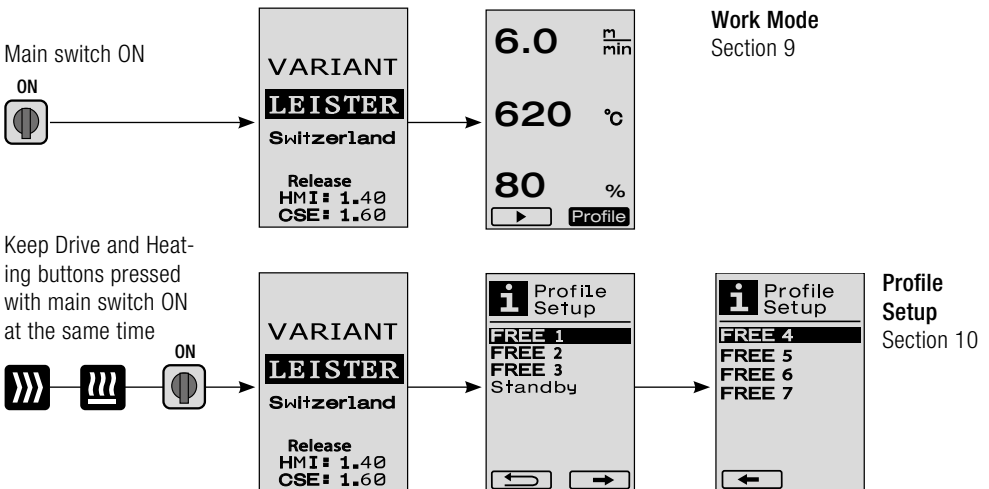


Moving



Carrying



8. Button Combinations

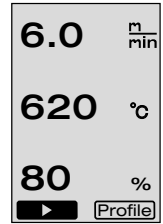


9. Work Mode

9.1 Setpoint Value Display (after switching on the device)

Main switch (3) ON 

- 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 9.8 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 9.7 Selecting Profiles).









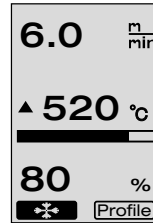
(Fig. 3)



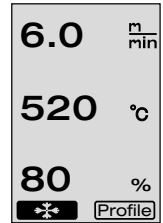
(Fig. 4)

9.2 Work display

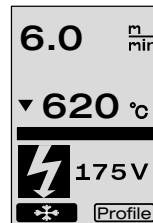
- Pressing the e-Drive  starts the heating and blower and the Setpoint Value display changes to the Work display.
- When the **welding nozzle (9)** is heating up, this is indicated on the **display (5)** with a progress bar, arrow  (up) and the actual value of the welding temperature (flashing) (Fig. 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 230V~).



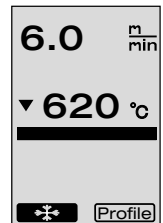
(Fig. 5)



(Fig. 6)






(Fig. 7)














(Fig. 8)

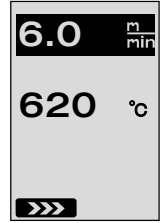


Undervoltage/Overvoltage can affect the welding results!

- If no button is pressed after a definite time (**welding nozzle (9)** NOT in welding position), the Standby menu will be displayed (Section 9.9 Standby).
- If the **welding nozzle (9)** is in the parked position, the menus Cool Down (Section 9.8 Cooling) or Profiles (Section 9.7 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).







9.3 Setting the drive speed

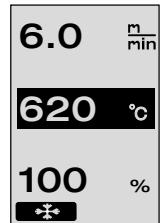
- The drive speed can be adapted with the Drive  button. This can be set by turning the e-Drive  in 0.1 m/min. increments from 1.5 m/min. to 18.0 m/min. This setting can be carried out with the drive switched on or switched off. If no entry is made by the **controls (4)** within 3 seconds, the new drive 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 9.6 Length Measurement, Blower and Drive Counter).
- You can change to the relevant menu by pressing the Heating  or Blower  button.



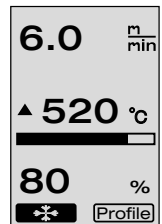
(Fig. 9)

9.4 Setting the welding temperature

- 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 9.8 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 9.2). (Only possible with VARIANT T1 230V~).
- You can change to the relevant menu by pressing the Drive  or Blower  button.









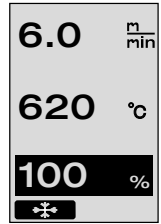
(Fig. 10)



(Fig. 11)






9.5 Setting the air volume

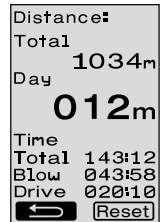
- The air volume can be changed with the Blower  button. The air volume can be set in 5% increments from 40% to 100% by turning the e-Drive . The setting is accepted after 3 seconds, as long as no button is pressed within these 3 seconds. If the air volume is set to 100%, no information will appear on 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 9.8 Cooling).
- You can change to the relevant menu using the Drive  or Heating  button.



(Fig. 12)











9.6 Length Measurement, Blower and Drive Counter

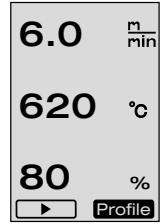
- This menu (Fig. 13) appears if the Drive  button is pressed for at least 3 seconds.
- The menu displays all operating times and the distance which the device has travelled since being switched on. The total distance (here: 1034 m) cannot be changed and shows the entire path taken since being put into 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.



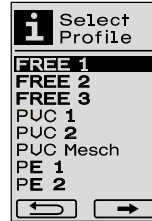
(Fig. 13)

9.7 Selecting Profiles

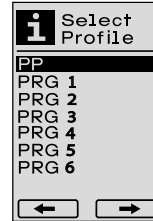
- If the display **Profile** at the right bottom of the **display (5)** is activated, profiles can be loaded by pressing the e-Drive . The display «Select Profile» then appears. A profile can be selected by turning the e-Drive . The profiles FREE 1–7 and 3 can be defined by users themselves (see Section 10 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).



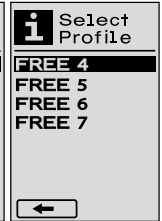
(Fig. 14)



(Fig. 15)










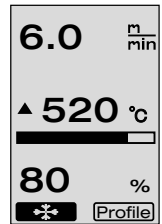
(Fig. 16)



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

9.8 Cooling

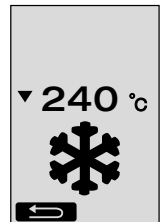
- If the symbol  is selected by pressing the e-Drive  (Fig. 17), the menu «Cool down OK?» will appear (Fig. 18). Pressing the e-Drive  activates the symbol OK at the right bottom of the **display (5)**. This initiates the cooling process.
- During the cooling down process, the air volume is increased 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 9.2 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. 17)




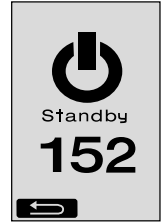
(Fig. 18)



(Fig. 19)

9.9 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 9.2 Work Display).
- Setting the standby time (Section 10.3 Standby Setup).



(Fig. 20)

9.10 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.

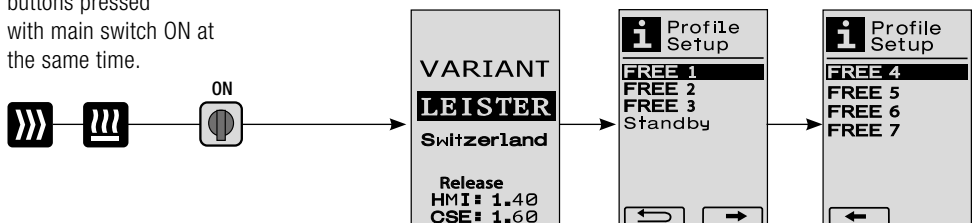


Error	Type of error
Err00	Control electronics defective
Err01	Interruption or short-circuit of the temperature probe
Err02	Heating element / Electronics defective (interruption in one/both winding(s))
Err04	Triac defective (one or both Triacs are defective)
Err08	Blower motor defective
Err40	Undervoltage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














10. Profile Setup

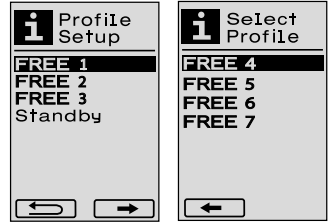
10.1 Profile Setup Button Combination

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






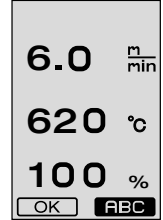
10.2 Creating Profiles

- The Profile Setup allows you to create 7 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.
- 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 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. 21)

- 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  or Back .









(Fig. 22)

- 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.





(Fig. 23)

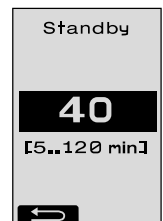
- Save or reject profile name
 - If the Save  symbol is selected by turning the e-Drive , the profile name will be saved by pressing the e-Drive .
 - If the Back  symbol is selected by turning the e-Drive , the profile name will be rejected (not saved) by pressing the e-Drive .



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

10.3 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 9.8 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.

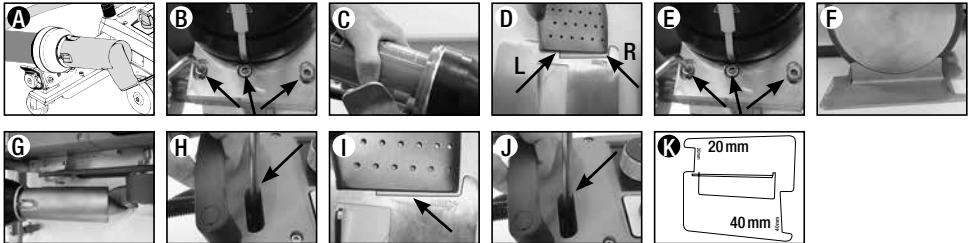


11. FAQ Error – Cause – Remedy

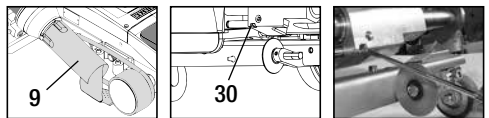
- Machine switches off automatically
 - The machine is automatically switched off after a set time with Standby mode (factory setting 40 minutes).
 - If needed, increase standby time (Page 15, 10. Profile Setup, 10.3 Standby Setup).
- Quality of the weld is defective
 - Check drive speed, welding temperature 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) as follows

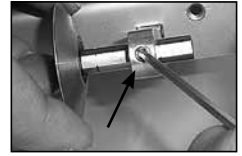
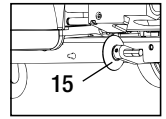
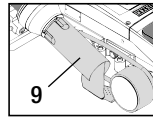
- Allow **welding nozzle (9)** to cool down (Page 14, 9. Work Mode, 9.8 Cooling).
- Loosen hexagon screws on device holder.
- Carry out angular adjustment via swivel movements at **hot-air blower (8)**.
- The **welding nozzle (9)** must (arrow L) be located on the **nozzle gauge (34)** and (arrow R) on the substrate.
- Tighten hexagon screws on device holder.
- Move **nozzle gauge (34)** to position. Note scale on **nozzle gauge (34)**.
- Move **hot-air blower (8)** into welding position.
- Loosen **swivel axis adjustment screws (25)**.
- Align **hot-air blower (8)** parallel to **nozzle gauge (34)**.
- Tighten **swivel axis adjustment screws (25)**.
- Remove **nozzle gauge (34)** and perform test weld.





- 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 14, 9. Work Mode, 9.8 Cooling)
 - Move **welding nozzle (9)** into welding position
 - Tighten **screw (30)** slightly with a screwdriver, then turn **screw (30)** back approx. 1/2 revolution.

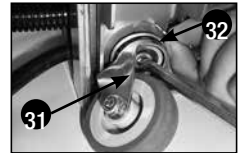
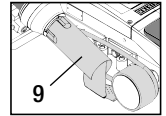
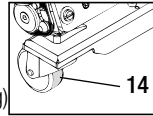


- Weld seam width is not constant
 - Carry out fine adjustment of the guide roller as follows:
 - Allow **welding nozzle (9)** to cool
 - Allow **welding nozzle (9)** to cool (Page 14, 9. Work Mode, 9.8 Cooling)
 - Move **welding nozzle (9)** into welding position
 - Loosen hexagon screw of the **guide roller (15)**
 - Push **guide roller (15)** into the required position
 - Tighten hexagon screw
 - Perform test weld




- Hot-air welding machine moves away from the weld (overlap welding)

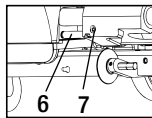
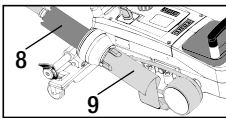
- Carry out track fine adjustment of the **control roller (14)** as follows:
 - Allow **welding nozzle (9)** to cool (Page 14, 9. Work Mode, 9.8 Cooling)
 - Turn off **main switch (3)** 
 - Disconnect power supply cord from power supply 
 - Remove **additional weight (16)**
 - Tilt welding machine to 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 14, 9. Work Mode, 9.8 Cooling)
 - Turn off **main switch (3)** 
 - 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.

12. Welding Applications

	Overlap	Hem	Hemstitch (up to 70 mm)	Piping cord	prefabricated piping
 <p>Standard version</p>	●	●	●		
 <p>Hem/Piping add-on part</p>		●	●	●	
 <p>Hold-down device</p>		●		●	●
 <p>Piping guide</p>				●	●

Application

Instead of the guide roller (15) you can also work with the hem/piping add-on part.

Also possible with standard version and fixing of the tarpaulin.

Also possible with standard version and fixing of the tarpaulin.

A base with longitudinal groove is recommended.

Crease-free fixing of the prefabricated piping.

Type

Good fixing of the tarpaulin.

Marking the hem overlap for better guide control.

Marking the hem overlap for better guide control.

Marking the hem overlap for better guide control. Allow device to run freely, manual guiding of the tarpaulin with piping.

13. Leister VARIANT T1 Versions

- Article no. 141.891 VARIANT T1, 230 V / 40 mm welding nozzle / with European plug
- Article no. 141.892 VARIANT T1, 230 V / 20 mm welding nozzle / with European plug
- Article no. 141.893 VARIANT T1, 400 V / 40 mm welding nozzle / with CEE plug (3LNPE)
- Article no. 141.894 VARIANT T1, 400 V / 20 mm welding nozzle / with CEE plug (3LNPE)
- Article no. 147.739 VARIANT T1, 200 V / 40 mm welding nozzle / without plug
- Article no. 147.748 VARIANT T1, 200 V / 20 mm welding nozzle / without plug

14. Accessories

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

- Article no. 142.650 Hem / Piping kit complete
- Article no. 140.530 Hem / Piping add-on part
- Article no. 142.221 Hold-down device
- Article no. 141.326 Piping guide
- Article no. 139.438 Additional weight
- Article no. 137.843 T-handle for guide bar top
- Article no. 116.798 Brass brush
- Article no. 142.705 Carrying case

15. Training

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

16. 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.



17. 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.



18. Disposal



Do not dispose of electrical equipment with household refuse.

Electrical appliances, accessories and packaging should be recycled in an environmentally friendly manner. When you are disposing of our products, please observe the national and local regulations.

19. Conformity

EU Declaration of 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/EC, 2014/30/EU, 2011/65/EU
Harmonised standards: EN ISO 12100, EN 55014-1, EN 55014-2, EN 61000-3-2, EN 61000-3-3, EN 61000-3-11, EN 61000-6-2, EN 62233, EN 60335-1, EN 60335-2-45, EN IEC 63000

Kaegiswil, 04/14/2021

Bruno von Wyl, CTO

Christoph Baumgartner, GM

UK Declaration of Conformity

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

UK Statutory Instruments: 2008 No. 1597, 2016 No. 1091, 2012 No. 3032
Designated Standards: BS EN ISO 12100, BS EN 55014-1, BS EN 55014-2, BS EN 61000-3-2, BS EN 61000-3-3, BS EN 61000-3-11, BS EN 61000-6-2, BS EN 62233, BS EN 60335-1, BS EN 60335-2-45, BS EN IEC 63000

Kaegiswil, 03/31/2021

Bruno von Wyl, CTO

Christoph Baumgartner, GM

Warranty

- The guarantee or warranty rights granted for this device by the direct distribution partner/salesperson apply from the date of purchase.
- In the event of a guarantee or warranty claim (verification by invoice or delivery note), manufacturing or processing errors will be rectified by the sales partner through replacement delivery or repair.
- Other guarantee or warranty claims are excluded within the framework of mandatory law.
- Damage resulting from natural wear, overload, or improper handling is excluded from the warranty.
- Heating elements are excluded from warranty obligations or guarantees.
- Guarantee or warranty claims cannot be asserted for devices that have been converted or changed by the purchaser or for which non-original Leister spare parts have been used.

↳ Sales and service center



Leister Technologies AG

Galileo-Strasse 10

6056 Kaegiswil

Switzerland

+41 41 662 74 74

leister@leister.com

www.leister.com