LEISTER®

English

Hilltop
Over 40 Years' Experience

MINIFLOOR
Drive unit

Hilltop Products
Unit A, Kirkstead way,
Golborne, Warrington,
WA3 3PY
+44 (0)1942 723 101
Sales@hilltop-products.co.uk
www.hilltop-products.co.uk

Table of contents

1. Important safety instructions 3

2. Application 4

2.1 Intended use 4

2.2 Non-intended use 4

3. Technical data 5

4. Transport 5

5. Device description 6

5.1 Overview of device parts 6

5.2 Extension cable 7

6. Operating readiness 7

6.1 Operating readiness 7

6.2 Parameter settings 10

6.3 Work environment/Safety 11

6.4 Starting the device 11

7. Welding Sequence 12

7.1 Preparation 12

7.2 Welding Sequence with unwinding device 12

7.3 Welding Sequence without unwinding device 13

8. Switching off the device 14

9. Faults 14

10. Maintenance 14

11. Service and repair 14

12. Disposal 15

13. Conformity 15

Operating manual (Translation of the Original User Manual)

Congratulations on your purchase of the MINIFLOOR.
You have chosen a first-class welding machine.
It was developed and produced in accordance with the latest state-of-the-art technology in the plastics-processing industry. It has also been manufactured using high–quality materials.

Please read the Operating Instructions carefully before use and keep them for future reference.

MINIFLOOR
Drive unit

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

1. Important safety instructions

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.

Danger of fire and explosion with improper use of the hot air hand tool (e.g., material overheating), particularly in the vicinity of flammable materials and explosive gases.

Risk of burning! Do not touch exposed metal parts while hot. Allow the device to cool down. Do not point the hot air flow at people or animals.

Risk of entanglement! Fingers, hair, or items of clothing can be drawn in.

Caution

The nominal voltage specified on the device must match the mains voltage.
If the network voltage fails, then the main switch and the drive must be switched off.

An FI switch is urgently required for personnel protection when the device is used at construction sites.

Device **is not permitted to be operated** unsupervised. Heat can reach flammable materials that are not in view.
Device may be used only by **trained specialists** or under their supervision. Children are not permitted to operate the equipment under any circumstances.

Minimum overhead clearance with TRIAC AT is **295 mm.**

2. Application

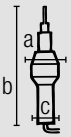
2.1 Intended use

Drive unit for the welding of floors with additionally available hot-air rod tools from Leister and Weldy, such as the TRIAC AT.

2.2 Non-intended use

Any use other than the use specified in 2.1 or beyond the intended use is deemed to be improper use.

3. Technical data

		MINIFLOOR drive unit	TRIAC AT hot air hand tool
Voltage	V~	100 – 230	100/120/230
Power	W	5	1500/1600/1600
Frequency	Hz	50 / 60	50 / 60
Drive	m/min ft./min	0.5 – 4.5 1.8 – 14.8	–
Air volume	l/min cfm	–	(20°C) 120 – 240 (68°F) 4.24 – 8.48
Temperature	°C °F	–	40 – 620 100 – 1150
Emission level	L_{pA} (dB)	<60 (K = 3 dB)	67 (K = 3 dB)
Dimensions (L × W × H) without TRIAC AT with TRIAC AT	 mm inch mm inch	 310 × 225 × 245 12.2 × 8.8 × 9.6 495 × 225 × 295 19.5 × 8.8 × 11.6	 a) 90 3.5 b) 336 13.2 c) ∅ 56 ∅ 2.2
Weight (L × W × H) without TRIAC AT with TRIAC AT	 kg lbs kg lbs	 5.3 11.7 6.6 14.5	 1.02 2.25
Mark of conformity		CE	CE
Safety mark		–	
Protection Class I			–
Protection Class II		–	

4. Transport

Comply with applicable national regulations regarding the carrying or lifting of loads.

Do not use **the handle on the transport box** for **transport with the crane.**

The hot air hand tool must **be cooled down** for **transport.**

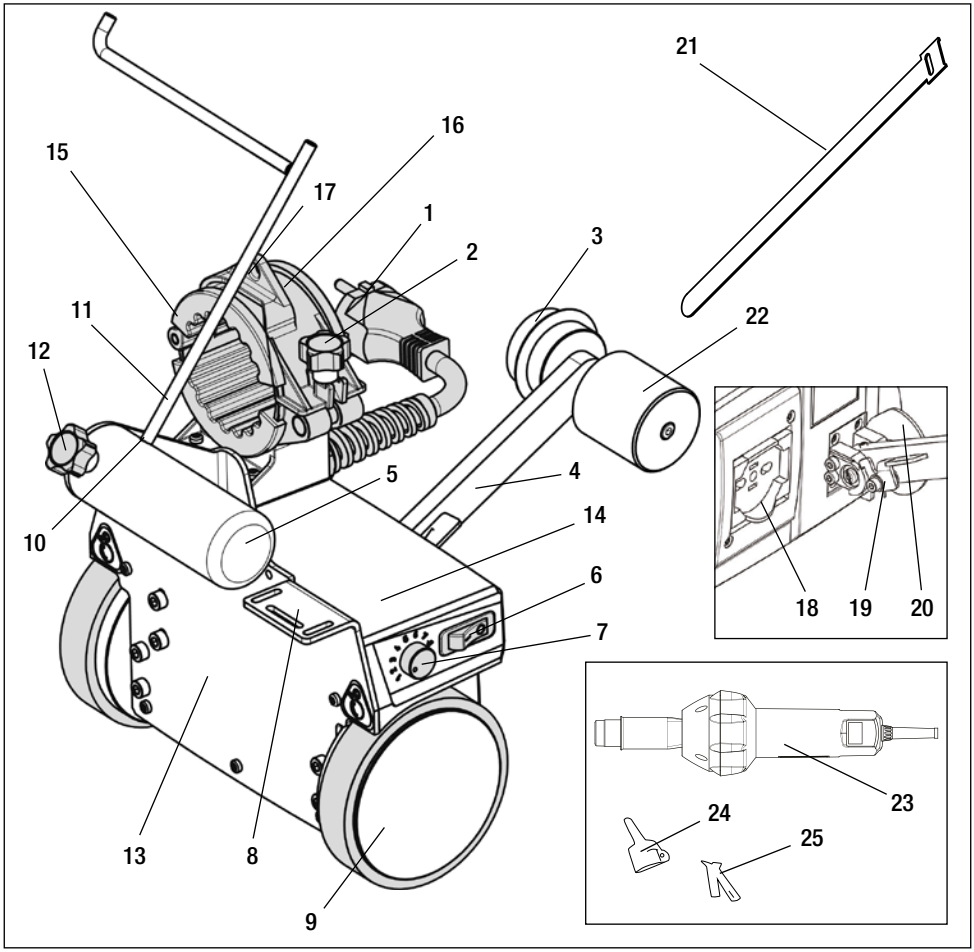
Do not store any flammable materials in the transport box.

Device is not permitted to be raised on the additional weight/final weight or unwinding device.

Transport damage warning:
The **rapid welding nozzle (24)** must be removed prior to transport in the box of the **tubular nozzle (23).**

5. Device description

5.1 Overview of device parts



1. Power supply cord
2. Clamping screw
3. Guide wheel
4. Guide arm
5. Carrying handle
6. Main switch
7. Drive potentiometer
8. Openings for cable attachments
9. Roller
10. Hole for unwinding device
11. Unwinding device
12. Clamping screw for unwinding device
13. Cover plate
14. Housing
15. Rubber band
16. Hot air hand tool clamping device
17. Lug for welding rod
18. Hot air hand tool outlet
19. Guide arm lock
20. Starting switch adjusting screw
21. Hook-and-loop fastener
22. Additional Weight

Optional accessories (not included in the scope of delivery):

23. Hot air hand tool
24. 5 mm tubular nozzle
25. Rapid welding nozzle

5.2 Extension cable

- A minimum cross-section must be observed when extension cables are used.
- The extension cable must be authorized for the utilization site (e.g., outdoors) and be marked accordingly.
- When a power plant is used as an energy supply, the following applies for its nominal output:
  2 × nominal output of the hot air hand tool and fitted with FI switch.
- Power plant must be grounded.

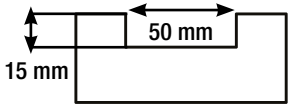
230 V~	up to	50 m	**3 × 1,5 mm²**
	up to	100 m	**3 × 2,5 mm²**
120 V~	up to	50 m	**3 × 1,5 mm²**
	up to	100 m	**3 × 2,5 mm²**

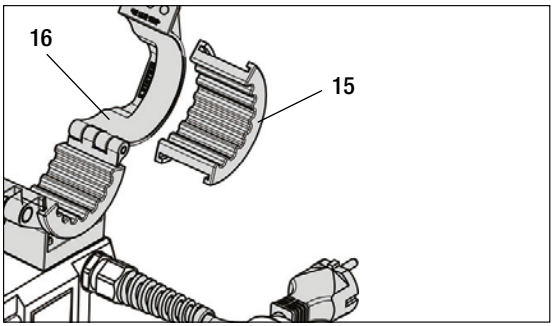
6. Operating readiness

6.1 Operating readiness

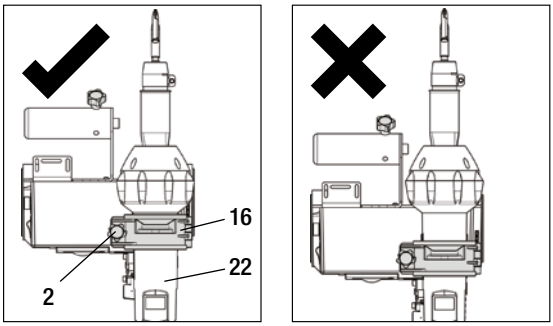
Article no.	For handle Ø in mm	Rubber band (15)
Art. 155.153 included in the scope of delivery	57-59	
Art. 154.723 available as an option	64-65	
Per ring from set 155.153 and 154.723	60-63	

A. Push **rubber band (15)** onto the **clamping device (16)** according to the diameter of the **hot air hand tool (22)** handle. When using a Triac PID hot air hand tool, a **Rubber band (15)** 155.153 must be cut to size in accordance with the sketch.

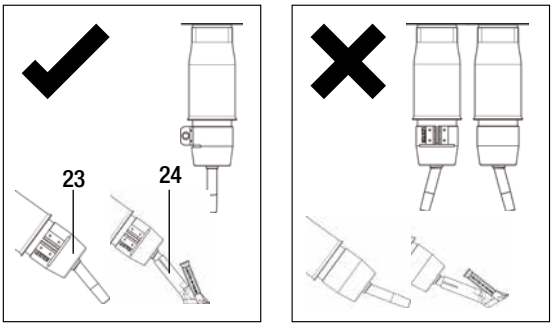




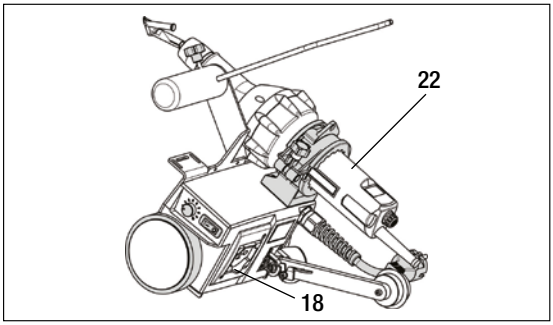
B. **Place hot air hand tool (22)** in **clamping device (16)** and tighten with a **clamping screw (2)**.
Make sure that the **hot air hand tool (22)** sits in close alignment with the **clamping device (16)**.



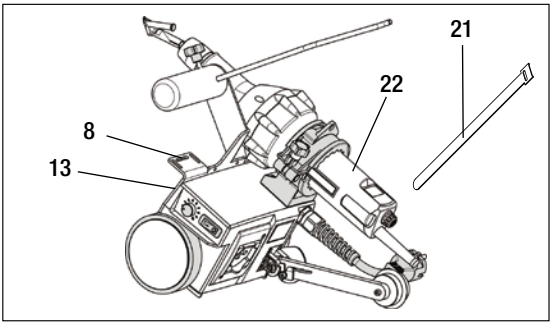
C. Insert **5 mm tubular nozzle (23),** 100.303 and **rapid welding nozzle (24)** 105.433 for wire diameter of 4 mm or 105.432 for wire diameter of 3 mm (make sure that the tubular nozzle and rapid welding nozzle are correctly aligned).
Caution: Welding with bent **tubular nozzles (24)** may lead to poor welding results!



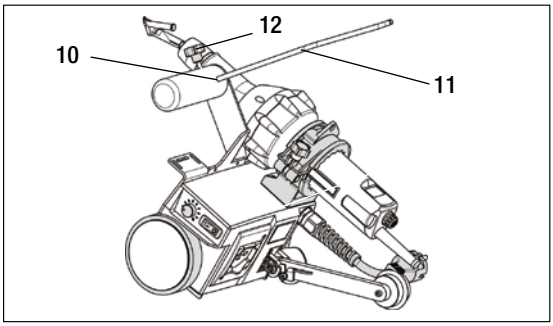
D. Connect **the hot air hand tool (22)** to the **outlet on the MINIFLOOR (18).**



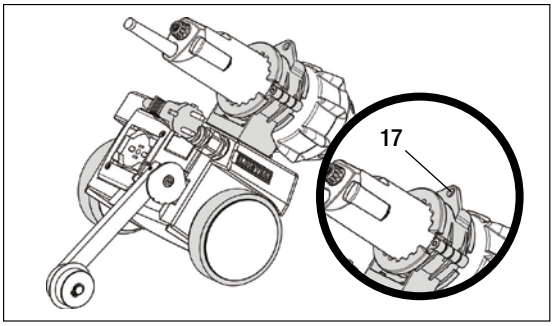
E. **Roll up the** cable for **the hot air hand tool (22)** and attach to the appropriate **openings (8)** on the **cover plate (13)** with **a hook-and-loop fastener (21).**



F. **Insert the unwinding device (11)** into **the hole (10)** and fasten it in place **with the clamping screw (12).**



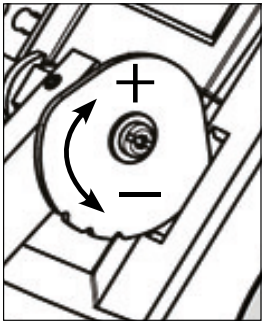
G. Alternatively, without the unwinding device, guide the welding rod through **the lug (17).**

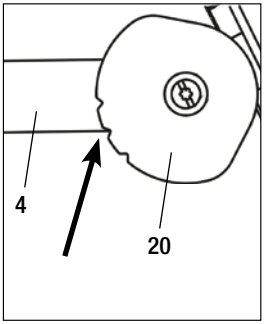


H. Inspect the position of the **adjusting screw for the starting switch (20)**.

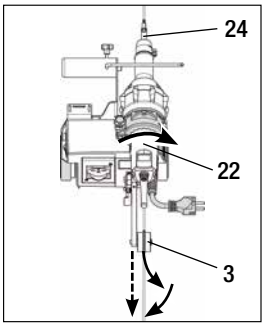
Meaning:
- Reduce start delay (–)
- Delay start (+)

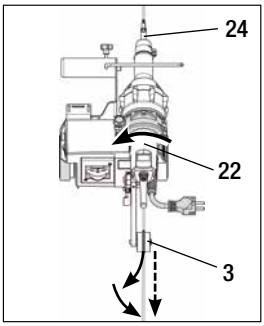
Default setting ex works:
The middle groove of the setting washer for the **starting switch (20)** is aligned to the bottom edge of the **guide arm (4).**





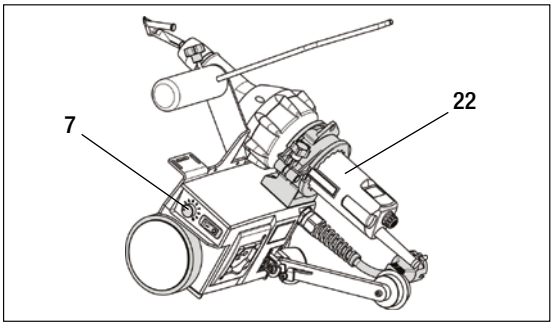
I. **Align the hot air hand tool (22), rapid welding nozzle (24),**, and **guide wheel (3)** with the welding groove.
If the **guide wheel (3)** jumps to the right out of the welding groove during welding, the running accuracy can be optimized by turning the **hot air hand tool (22)** clockwise. If the **guide wheel (3)** jumps to the left out of the welding groove during welding, the **hot air hand tool (22)** should be turned counter-clockwise.





6.2 Parameter settings

Set the required welding speed on the MINI-FLOOR **potentiometer (7).**
Adjust the required welding temperature and – if available – the air volume setting on the optional **hot air hand tool (22).**
For the hot air hand tool (22) settings**,** please observe the operating instructions of the device in use.



Level	m/min	ft./min
1	0.4	1.3
2	0.9	2.9
3	1.3	4.3
4	1.7	5.6
5	2.3	7.5
6	2.7	8.9
7	3.1	10.1
8	3.5	11.5
9	4.0	13.1
10	4.3	14.1

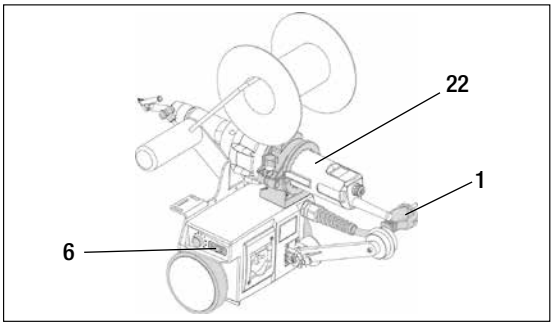
6.3 Work environment/Safety

The device should only be used in the open or in a well-ventilated area. Be careful not to burn the material during welding.
Follow the safety precautions provided by the manufacturer for the material.

Prior to commissioning, check the power supply cord (1), the plug, and the extension cable for electrical and mechanical damage. Use extension cables with protective conductors only!

The MINIFLOOR must not be used in areas with explosion and/or ignition hazards. Ensure a stable position during work. The power supply cord (1) must be able to move freely and must not hinder the user or third parties while working.

Place the MINIFLOOR on a horizontal, fireproof support and ensure sufficient distance from flammable materials and explosive gases!
Swivel the **hot air hand tool (22)** into the parking position during interruptions or to cool it down (see image below). To transport, allow the device to cool and switch off the **main switch (6)**.



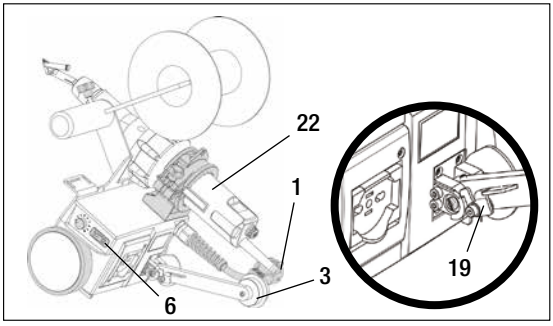
6.4 Starting the device

Prior to commissioning, check the power supply cord (1), the plug, and the extension cable for electrical and mechanical damage.

Switch off **the MINIFLOOR (6)** and **hot air hand tool (22) main switches.**

The nominal voltage, specified on the devices must match the mains voltage. Connect the device to the nominal voltage.
In the event of power failure **, swivel the hot air hand tool (22)** into the parking position.
Do not point the hot air flow at people or animals.

Place the MINIFLOOR on the floor to be welded and **swivel the hot air hand tool (22)** into the parking position. Unlock **guide arm lock (19).**
Place the guide wheel (3) in the groove for the welding rod. Switch the MINIFLOOR on **via the main switch (6).**
Switch the hot air hand tool (22) on using the appropriate switch.
Adjust the welding parameters for the heating, and – if available – the blowers.
For the hot air hand tool settings, please observe the operating instructions of the device in use.



7. Welding Sequence

7.1 Preparation

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

- Adjust the welding speed, heating, and blowers.
- It is important to reach the welding temperature (heating time approx. 3–5 min).

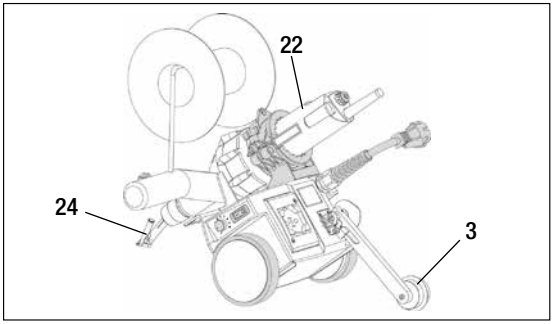
Risk of entanglement! Fingers, hair, or items of clothing can be drawn in.

7.2 Welding Sequence with unwinding device

Start of the welding process

- Insert the welding rod into the **rapid welding nozzle (24)**.
- Swivel the **hot air hand tool (22)** downwards, the drive motor starts automatically.
- Ensure that the **guide wheel (3)** remains in the groove.

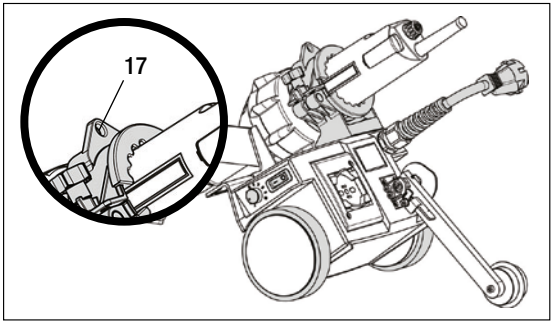
With unwinding device



7.3 Welding Sequence without unwinding device

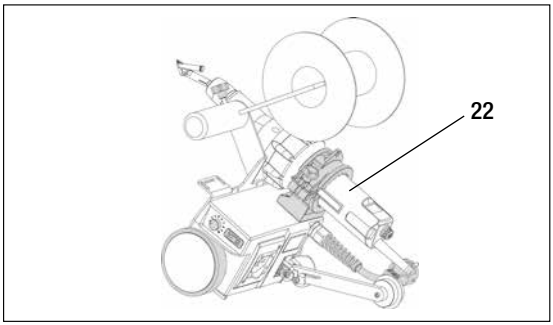
- Without the unwinding device, guide the welding rod through **the lug (17).**

Without unwinding device



End of the welding process

- Once the welding process is complete, swivel the **hot air hand tool (22)** into the parking position.
- The drive motor stops automatically.



8. Switching off the device

- **Leave the hot air hand tool (22) to** cool.
- Switch off **the main switch** of the **hot air hand tool (22)** and the **MINIFLOOR (6).**
- **Clean the rapid welding nozzle (24)** with a brass brush.
- **Check the power supply cord (1)** and plug for electrical and mechanical damage.

9. Faults

- If drive wheels are blocked, switch off the **main switch** of the **hot air hand tool (22)** and the **MINIFLOOR (6).**

10. Maintenance

- Regularly inspect if the drive wheels can turn freely.

11. Service and repair

- Repairs shall be assigned exclusively to authorized Leister Service points.
- These guarantee a professional and reliable repair service within 24 hours with original spare parts in accordance with circuit diagrams and spare parts lists.

12. 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.

13. Conformity

EU Declaration of Conformity

Leister Technologies AG, Galileo-Strasse 10, CH-6056 Kägiswil, Switzerland confirms that this product in the model made available for purchase, fulfills the requirements of the following EU directives.

Directives: 2006/42/EC, 2014/30/EU, 2011/65/EU
Harmonized standards: EN ISO 12100, EN 60335-1, EN 62233, EN 55014-1, EN 55014-2, EN 61000-3-2, EN 61000-3-3, EN IEC 63000

Kägiswil, 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 model made available for purchase, fulfills the requirements of the following UK Statutory Instruments.

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

Kaegiswil, 03/24/2021

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.

LEISTER®

Hilltop Products
Unit A, Kirkstead way,
Golborne, Warrington,
WA3 3PY
+44 (0)1942 723 101
Sales@hilltop-products.co.uk
www.hilltop-products.co.uk

MINIFLOOR
Art. 154.333 / EN / 12.2015 / 08.2022