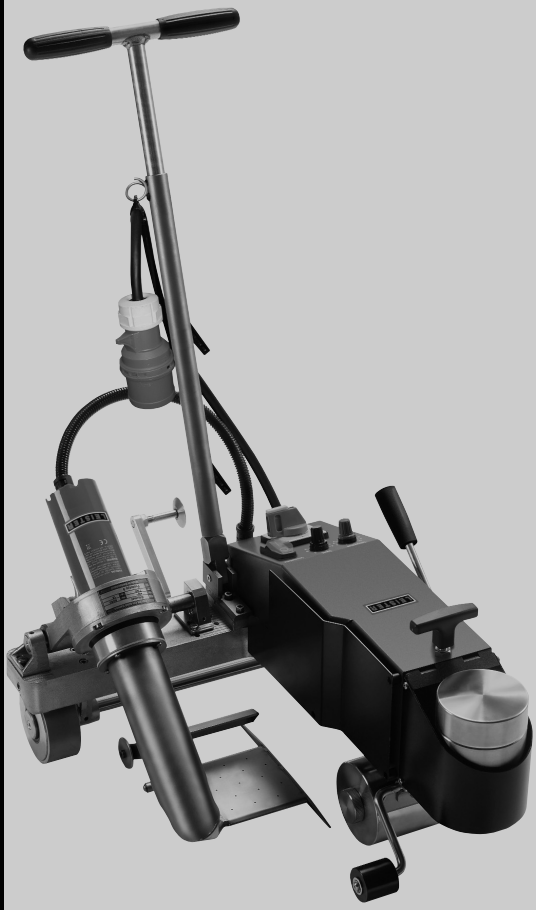
LEISTER

GB

BITUMAT



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Please read operating instructions carefully before use and keep for further reference.

Leister BITUMAT
Automatic hot air welding machine

APPLICATION

- For overlap welding of modified bitumen (SBS, APP) for various roofing systems
- Welding seam widths 80 and 100 mm

WARNING

Danger! Unplug the tool before opening it as live components and connections are exposed.

Incorrect use of the hot air tool can present a **fire and explosion hazard** especially near combustable materials and explosive gases.

Do not touch the element housing and nozzle when hot as they can cause **burns**. Allow the tool to cool down. Do not point the hot air flow at people or animals.

Connect tool to a **receptacle with protective earth terminal**. Any interruption of the protective conductor inside or outside the tool is dangerous!
Line/mains extension cables must always have a protective ground conductor!

CAUTION

The **voltage rating** stated on the tool should correspond to the mains voltage.
In the case of a **power cut**, the main switch has to be set to **0**.

For personal protection, we strongly recommend the tool be connected to an **RCCB** (**R**esidual **C**urrent **C**ircuit **B**reaker) before using it on construction sites.

The tool must be operated **under supervision.**
Heat can ignite flammable materials which are not in view. The machine may only be used by **qualified specialists** or under their supervision. Children are not authorized to use this machine.

Protect the tool from **damp** and **wet.**

The replacement driving roller must always be secured in the holder with the screw-on additional weight, except during the welding process

Conformity

Leister Process Technologies, Galileo-Strasse 10, CH-6056 Kaegiswil/Schweiz confirms that this product, in the version as brought into circulation through us, fulfils the requirements of the following EC directives. Directives: 98/37, 2004/108, 2006/95.
Harmonized Standards: EN 12100-1, EN 12100-2, EN 60204-1, EN 55014-1, EN 55014-2, EN 61000-6-2, EN 61000-3-2, EN 61000-3-3, EN 61000-3-11, EN 61000-3-12, EN 50366, EN 60335-2-45

Kaegiswil, 29.02.2008

Christiane Leister, Owner

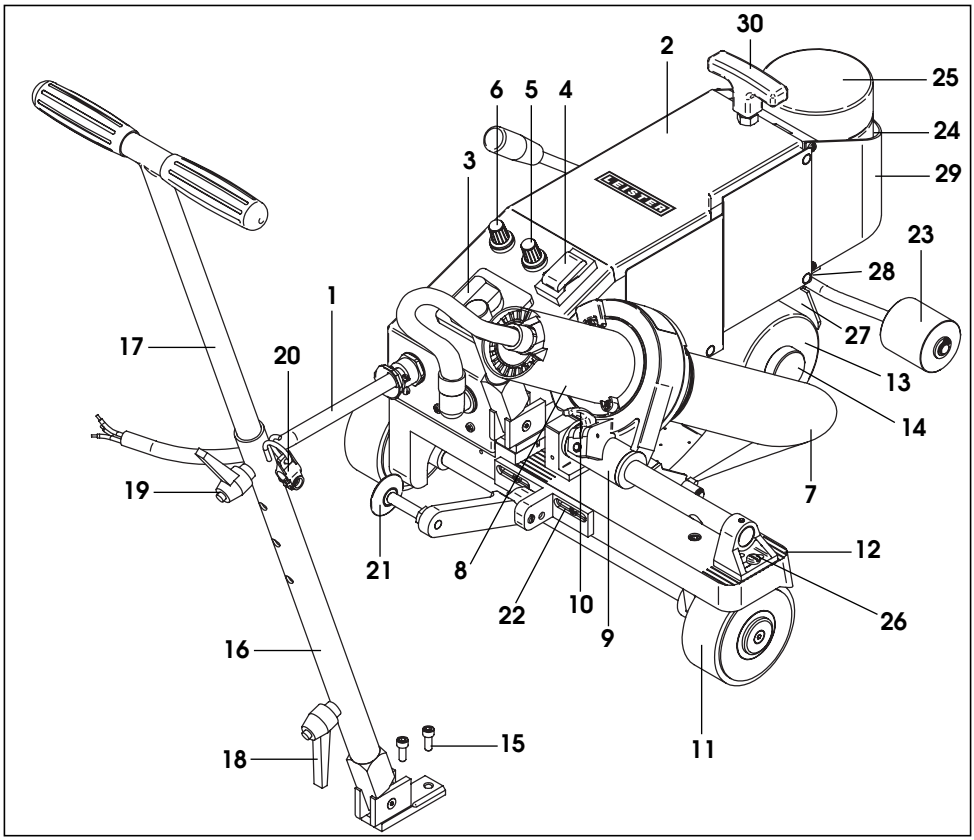
Disposal

Power tools, accessories and packaging should be sorted for environmental-friendly recycling. **Only for EC countries**: Do not dispose of power tools into household waste! According to the European Directive 2002/96/EC on waste electrical and electronic equipment and its incorporation into national law, power tools that are no longer suitable for use must be separately collected and sent for recovery in an environmental-friendly manner.

TECHNICAL DATA

Voltage	**V~**	230 ★	400 ★
Power consumption	**W**	6700	6700
Frequency	**Hz**	50 / 60	50 / 60
Temperature	**°C**	20 – 650	20 – 650
Speed	**m/min.**	0.8 – 12	0.8 – 12
Noise emission level	**L_{pA} (dB)**	73	73
Welding seam width	**mm**	80 / 100	80 / 100
Size LxBxH	**mm**	690 × 490 × 330	690 × 490 × 330
Weight	**kg**	42 with cord	42 with cord
Marking of confirmity		CE	CE
Mark of approval		ⓢ	ⓢ
Certification scheme		CCA	CCA
Protection class I		⏚	⏚

★ Mains voltage cannot be switched over



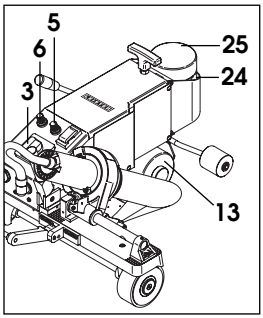
1. Mains cable
2. Housing
3. Main switch
4. Drive switch
5. Speed knob
6. Temperature knob
7. Welding nozzle
8. Hot air blower
9. Tool holder
10. Locking lever
11. Transport roller
12. Scale for tool adjustment
13. Drive roller
14. Fixture screw
15. Allen screw
16. Lower guide bar
17. Upper guide bar
18. Clamping lever – steering bar separation
19. Clamping lever – height adjustment
20. Cable holder
21. Guide roller
22. Adjusting screw – guide roller
23. Lifting device
24. Replacement drive roller
25. Screw-on additional weight
26. Screw (tool setting grid)
27. Scraper
28. Screw (scraper)
29. Holder

Welding temperature

Turn the **main switch (3)** to **I**. Set the **temperature knob (6)** to the required value. Heating-up time approx. 5 minutes.

Welding speed

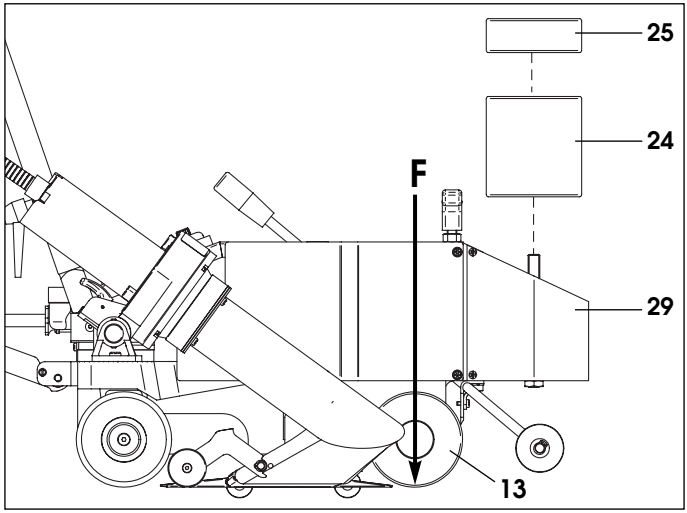
Set the appropriate welding speed with the **speed knob (5)** depending on the sealing sheeting and weather conditions



Joining force

- The joining force is transmitted to the **drive roller (13)**.
- The **replacement drive roller (24)** and the **screw-on additional weight (25)** can be removed as required (see joining force table).

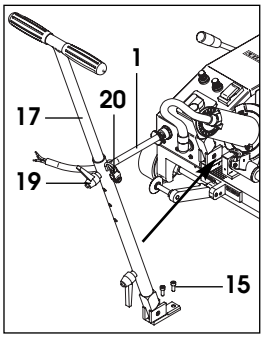
Joining force (F) table	
Without weight (24, 25)	170 N
With screw-on additional weight (25) and without replacement drive roller (24)	190 N
Replacement drive roller (24) and without screw-on additional weight (25)	230 N
Replacement drive roller (24) and with screw-on additional weight (25)	250 N



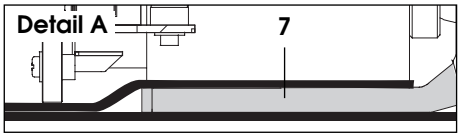
CAUTION:

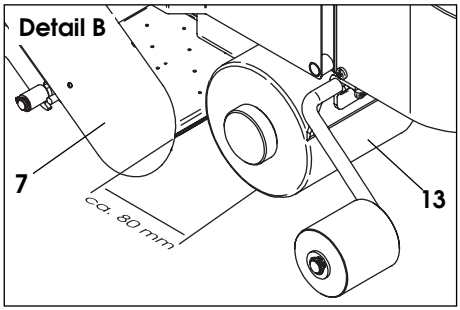
The **replacement drive roller (24)** must always be secured in the **holder (29)** with the screw-on **additional weight (25)**, except during the welding process.

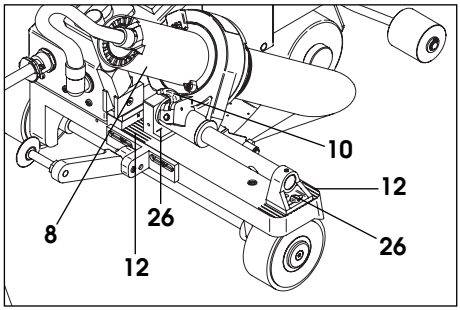
Operational condition



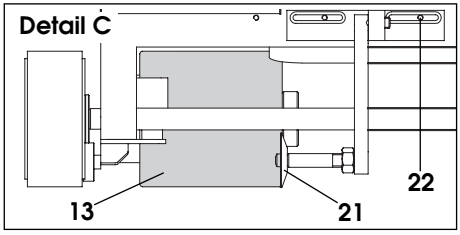
- Mount the upper part of the pivoting **upper guide bar (17)** with **allen screws (15)**.
- Fit the **mains cable (1)** in the **cable holder (20)**.
- Set the required height of the steering bar using the **clamping lever (19)**.
- Check the basic setting of the **welding nozzle (7)**.
  - The **welding nozzle (7)** must lie flat on the lower sealing sheet (see Detail A).
  - The distance between the centre of the **drive roller (13)** and the air outlet of the **welding nozzle (7)** should be 80 mm (see Detail B). Otherwise the **hot air blower (8)** must be set with the **scale for tool adjustment (12)** by loosening the **screws (26)**.
  - The **welding nozzle (7)** should be set parallel with the **drive roller (13)**.



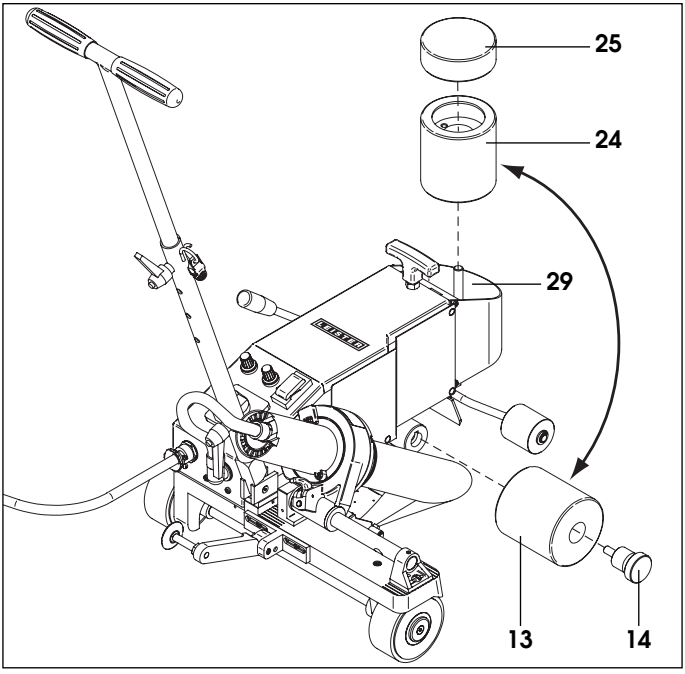


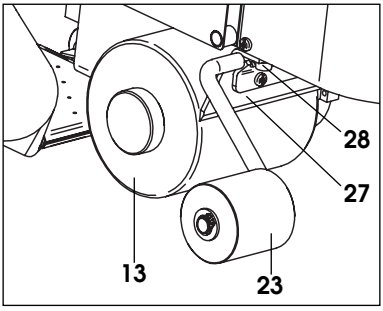


- Transport configuration
  - Swivel the **guide roller (21)** upwards
  - Extend the **hot air blower (8)** by pulling the **locking lever (10)** and swivelling it up until it locks in place.
  - Set the **guide roller (21)** to the required overlap using the guide roller **adjusting screw (22)**. The guide roller (21) must be set in line with the edge of the **drive roller (13)** (Detail C).



- To achieve an even weld, there must be no bitumen deposits on the **drive roller (13)**.
- In the case of soiling, the following measures can be taken:
  – Release **screws (28)**. Reduce the distance between the **scraper (27)** and the **drive roller (13)**. Tighten the **screws (28)**.
  – Release the **fixture screw (14)**, remove and clean the **drive roller (13)**. Mount the **drive roller (13)**. Tighten the **fixture screw (14)**.
  – Release the **fixture screw (14)** and remove the **drive roller (13)**. Release the **Screw-on additional weight (25)**, remove the **replacement drive roller (24)** from the **holder (29)**. Mount the **replacement drive roller (24)** with the **fixture screw (14)**. Place the soiled **drive roller (13)** into the **holder (29)** and secure with the **Screw-on additional weight (25)**.
- Connect the tool to the mains.

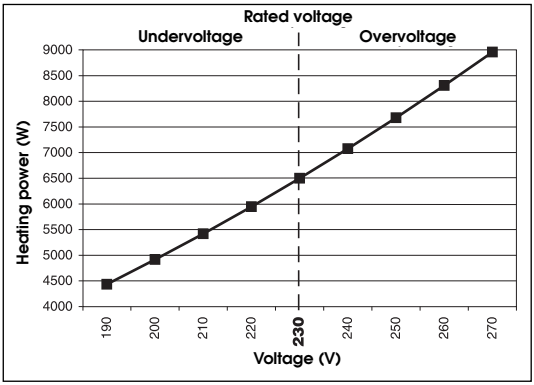




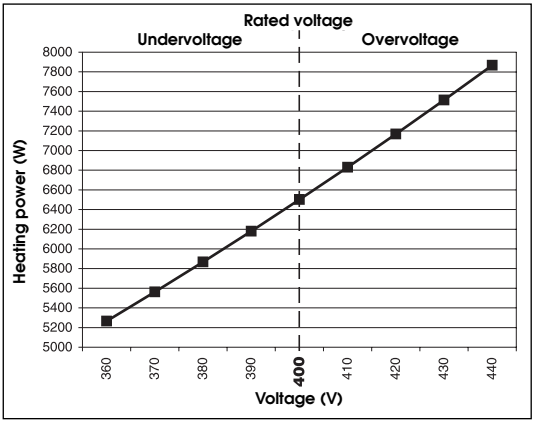
Power supply

If an extension cable is used, a 4 mm^2 mains cable must be used. The extension cable must be approved for the application site (e.g. outdoors) and labelled accordingly.

Heating power with undervoltage / overvoltage



Voltage (V)	Heating power (W)
190	4436
200	4915
210	5419
220	5947
230	6500
240	7078
250	7680
260	8307
270	8958



Voltage (V)	Heating power (W)
360	5266
370	5563
380	5868
390	6180
400	6500
410	6831
420	7168
430	7513
440	7867

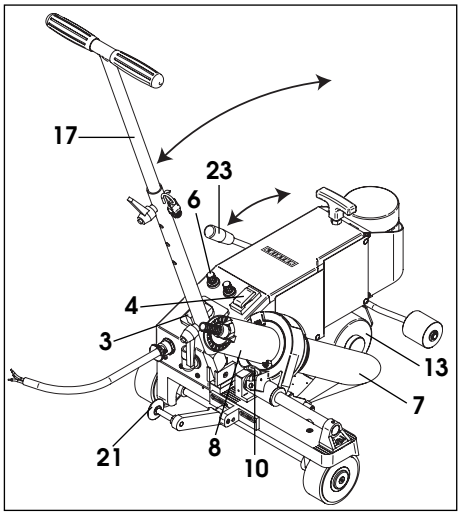
Undervoltage has a negative effect on the welding speed!

Tool positioning

- Tilt the welding machine by pressing on the pivoting **upper guide bar (17)** and move it to the welding position.
- Swivel the **guide roller (21)** downwards.
- The **guide roller (21)** must be set in line with the edge of the **drive roller (13)**.
- Lift the welding machine with the **lifting device (23)**.

Welding process

- Set the welding parameters, see Page 5.
- The welding temperature must be attained (heating-up time approx. 5 minutes).
- Perform test welding by following the welding instructions from the material manufacturers and national standards or directives.
- Inspect test welding.
- Start the drive with the **drive switch (4)**. In case of mains power failure, the **drive switch (4)** switches off automatically. Once mains power is restored the drive can be restarted.
- Raise the **locking lever (10)**, lower the **hot air blower (8)** and move it in between the overlapping sealing sheets as far as it goes. Wait a moment until the material is plasticized and then lower the welding machine using the **lifting device (23)**.
- The welding machine is guided along the overlap on the pivoting **upper guide bar (17)**. The user's walking direction can be changed with the pivoting **upper guide bar (17)**. Do not apply any pressure to the pivoting **upper guide bar (17)**; this could lead to welding errors. Observe the position of the **guide roller (21)**.
- After welding, switch off the **Drive switch (4)**, raise the **locking lever (10)**, extend the **hot air blower (8)** as far as it goes and swivel it up to the locking point.
- On completion of welding work, set the **temperature knob (6)** to zero; this cools the **welding nozzle (7)**.
- Set the **main switch (3)** to **0**.



ACCESSORIES

- Only Leister accessories should be used.

TRAINING

Leister Process Technologies and its authorized Service Centres offer welding courses world-wide free of charge. If necessary, customers will also receive training on site.

MAINTENANCE

- Clean the **drive roller (13)**.
- Clean the **welding nozzle (7)** with a wire brush.
- Clean the air inlet on the **hot air blower (8)**.
- Check the **mains cable (1)** and plug for electrical and mechanical damage

SERVICE UND REPARATUR

- The Bitumat automatic hot air welding machine must be checked by an authorised service centre after 800 operating hours at the latest
- Repairs should only be carried out by authorised LEISTER service centres. They guarantee correct and reliable **repair service within 24 hours**, using original parts in accordance with the circuit diagrams and spare parts lists.

WARRANTY

- For this tool, we generally provide a warranty of one (1) year 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 guarantee.
- Guarantee claims will be rejected for tools that have been altered or changed by the purchaser.

Technical data and specifications are subject to change without prior notice.

LEISTER®

Service Record Leister Bitumat

This document should be kept up to date during repair or servicing by the authorized LEISTER Service Centre. This document should be in the possession of the owner of the equipment.

Technical data

Type of Automatic Hot Air Welding Machine .....

Order No. .....

Serial No .....

Rated voltage ..... **V**

Rated capacity ..... **W**

Sale ..... **date**

Service

1. Date ..... Service Centre..... Signature.....

2. Date ..... Service Centre..... Signature.....

3. Date ..... Service Centre..... Signature.....

4. Date ..... Service Centre..... Signature.....

5. Date ..... Service Centre..... Signature.....

6. Date ..... Service Centre..... Signature.....

Repair

1. Date ..... Service Centre..... Signature.....

2. Date ..... Service Centre..... Signature.....

3. Date ..... Service Centre..... Signature.....

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Your authorised Service Centre is:

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