LEISTER

PLASTIC WELDING

Leister sets the standard on the roof.

Leister delivers performances.

Wherever you need to apply heat, Leister provides the ideal solution. We have been the worldwide leader in the field of plastic welding and hot-air blowers for over 60 years. For several years now we have also been offering innovative and effective laser systems and micro-systems. We develop and produce all of our products in Switzerland – so you can always rely on the proverbial Leister quality. And because 98% of our production is exported, we have established a broad network of service centers throughout the world – guaranteeing excellent service anytime and anywhere.

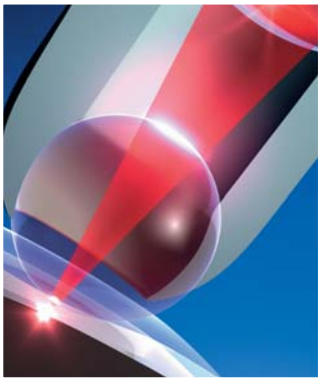
Leister Corporate Center in Kaegiswil, Switzerland.

60 years LEISTER

LEISTER

Plastic Welding
For decades now, we have been the worldwide market leader. The exceptional performance and reliability of our products makes Leister the first choice. Our tools are used in roof sealing systems, floor coverings, plastic sheeting, in earthworks, hydraulic and tunnel engineering, in process equipment manufacturing and for vehicle repair.

NOVOLAS™



Lasersystems
Our innovative solutions for precision welding of plastics opens up new production methods in automobile manufacturing, medical and sensory technology, electronics, as well as in microsystems technology or in soldering electronic components.

LEISTER

Process Heat
Whether for activation, heating, curing, melting, shrinking, welding, sterilization, drying or warming: hot-air is increasingly used in industrial processes. Leister customers profit from our extensive engineering knowledge and benefit from our advice in the conceptual design of hot-air applications.

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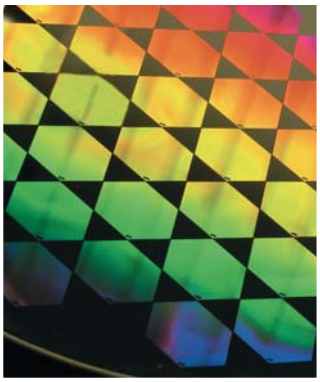


Microsystems
In tomorrow's world, the smallest of structures will play a huge role! In order for our customers to keep ahead of the micro field in the future, we are already developing and producing micro-mechanical sensors and micro-optical components in our clean-room today.

Most used equipment on the roof.

First rate quality is called required when laying and welding roofing membranes. After all, small mistakes can lead to expensive repairs. That is why professionals rely on Leister and our line of precise, durable and easy-to-operate equipment. We offer a variety of hot-air welding machines, hand tools, and a broad range of accessories for welding PVC-P, TPO, ECB, EPDM, CSPE and modified bitumen roofing membranes. As the worldwide market leader in the hot air plastic welding industry, Leister knows what roofing professionals need to succeed.

- All devices fulfill the highest engineering standards: CE, GS, CCA, ⧈, ⏚ and UL (TRIAC PID / S and HOT JET S)
- 100 % Swiss made quality
- 60 years of experience in plastic welding
- More than 120 Sales and Service Centres worldwide

VARIMAT V2

NEW!

Ergonomic:
Height and angle of guide-bar can be adjusted easily

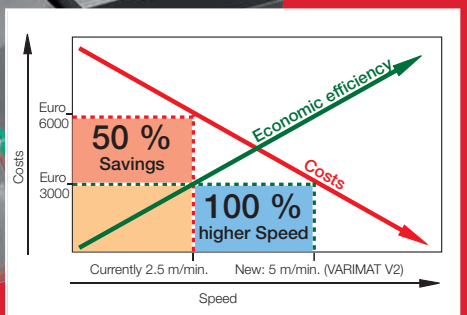
High tech:
New gear design allows speeds of up to 12 m/min

Maintenance-free:
High performance brushless blower motor, no brushes to change

Intuitive:
Protected design. Easy-to-view display with “e-drive” and easy-to-store welding settings

More than double welding speed

High speed:
New welding nozzle with protected design for reliable welding quality



High potential savings:
Lower costs thanks to higher welding speed (Cost calculations based on 20,000 m² / 5 *m/min)*

Hot air welding machine

VARIMAT V2

Using the new VARIMAT V2, polymer roofing membranes can be welded more rapidly resulting in lower cost. Users appreciate its streamlined ergonomics and its ease of use.

- At more than 6 m/min, the fastest welding speed in the world (depending on material)
- Guide bar minimizes back strain
- No brushes to replace means less service costs
- User friendly display with “e-Drive” (press and turn control) to recall pre-set and saved welding settings

Technical Data

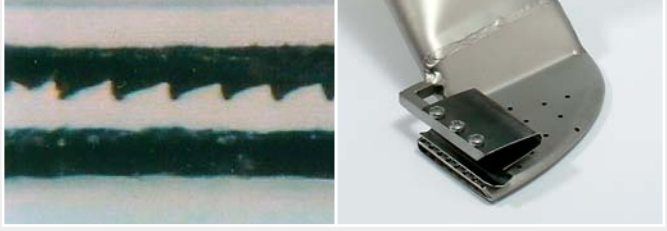
Voltage	V~	200	230	400
Power consumption	W	4200	4600	5700
Temperature	°C	20 – 620		
Drive speed	m/min	0.7 – 12		
Air flow range	%	50 – 100		
Width of welding nozzle	mm	40		
Size (L × W × H)	mm	640 × 430 × 330		
Weight	kg	35		

Article No.

VARIMAT V2	138.108	230 V, Schuko plug
	137.821	400 V, 16 A EC plug
	139.734	200 V, Japanese plug

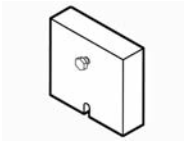
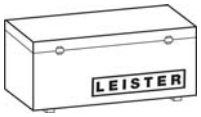
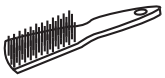
Other versions on request

Additional accessories on page 18



For TPO-sheets the patented grip nozzle means there is no need for cleaning beforehand. (accessory)

Accessories VARIMAT V2

	**113.995** **113.600**	Grip-nozzle 30 mm Grip-nozzle 40 mm
	**107.067**	Additional weight for even more pressure
	**107.612** **107.613** **107.611**	Heating element 230 V, 4400 W 400 V, 5500 W 200 V, 4000 W
	**139.048**	Sturdy storage case * 720 × 470 × 450 mm, multi-layer plate, green
	**132.429**	2 welding plates for optimum welding start *
	**138.817**	Steel brush to clean nozzle *
	**110.714**	Maintenance set with size 5 screw-driver, size 2 and 8 pin wrenches and open-ended wrench size 17

* Included in delivery

The new VARIMAT V2 in use. Hoisted onto the roof in the practical transport box.

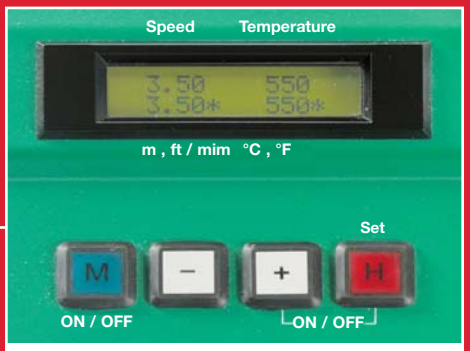
UNIROOF E

10 A / 230 V
Power supply

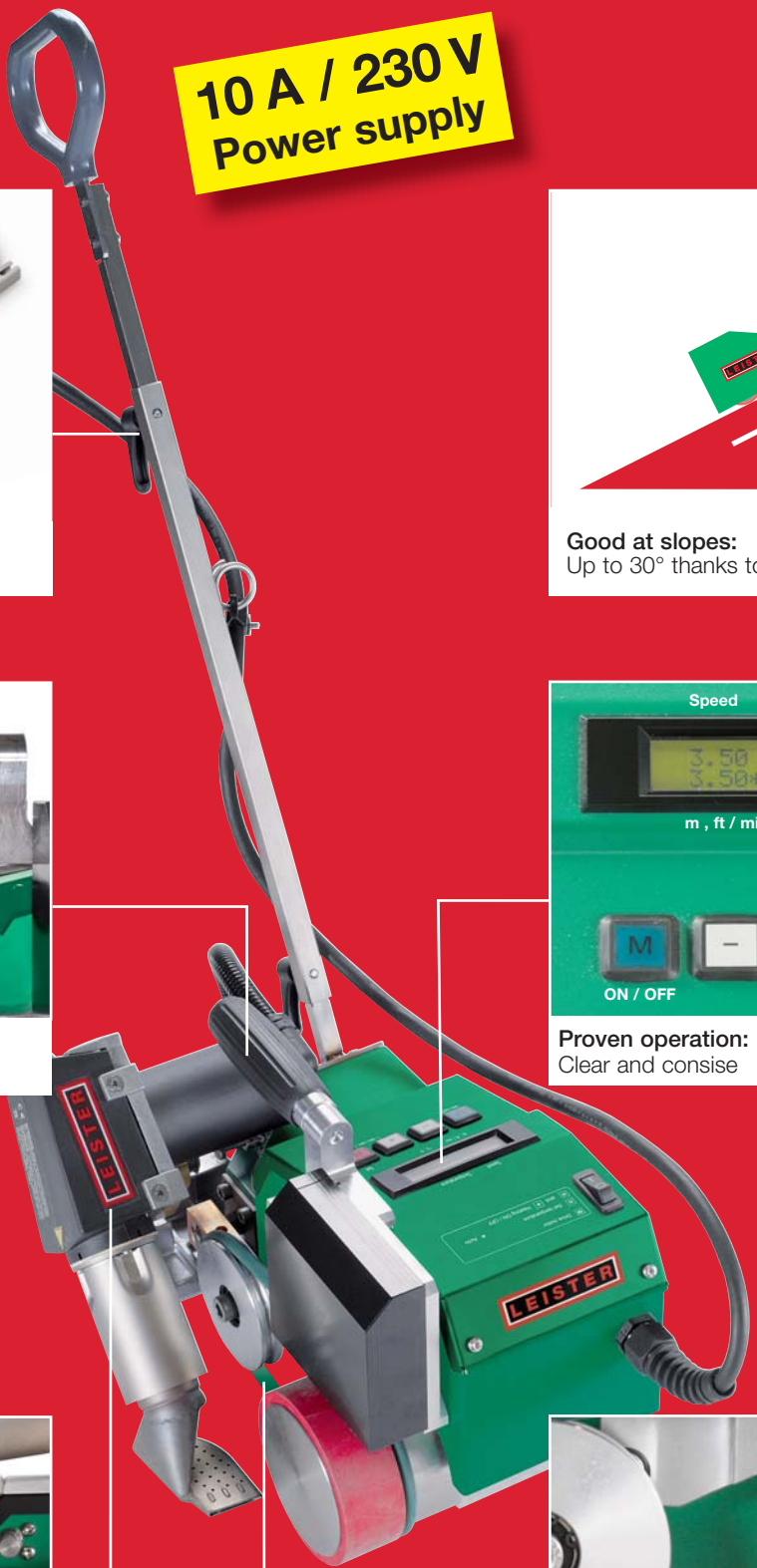
Kind to your back:
Easily adjustable guide rod

Good at slopes:
Up to 30° thanks to high motor power

Ergonomic:
Integrated handle for easy carrying



Proven operation:
Clear and consise



Increased safety:
Thanks to the locking hot-air unit

Homogenous weld seam:
Thanks to the sophisticated air dam belt

Hot air welding machine

UNIROOF E

The UNIROOF E is particularly suitable for edges, hard-to-reach areas and smaller roofs. Where welding with the VARIMAT V is not possible, the UNIROOF E, with its compact design, offers the ideal solution.

- Easy to carry thanks to its light weight (only 13kg)
- Can be used anywhere with 10A / 230V power supply
- Up to 30° incline
- A lot of power in a small package

Technical Data

Current	A	10
Voltage	V~	230
Power consumption	W	2300
Temperature	°C	20 – 600
Speed	m/min	1 – 5
Width of welding nozzle	mm	30
Dimensions (L x W x H)	mm	420 × 270 × 210
Weight	kg	12.8 (with cable)

Article No.

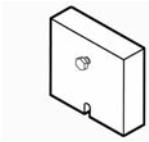
UNIROOF E	134.447	230 V / 30 mm with Euro plug

Other versions on request **Additional accessories on page 18**

Lifting device for simple moving to the next weld seam. (accessory)

Roughening and welding of TPO films without pre-cleaning of the weld seam in one work step with the grip nozzle. (accessory)

Accessories UNIROOF E

	**125.685**	Grip nozzle 30 mm, for roughening and welding of TPO single plies
	**107.067**	Additional weight for even more pressure
	**115.057**	Lifting device for simple moving to the next weld seam
	**103.604**	Heating element 230 V, 2100 W

Rigid plastic carry case offers optimal protection. (Included in delivery)

Its small dimensions mean that there are no obstacles for the UNIROOF E.

Semi automatic welding machine

TRIAC DRIVE S

This tried and tested semi-automatic welding machine can be used in most applications. The increased welding speed compared with manual welding gives rise means higher productivity.

- Faster and more efficient than hand welding
- Small and compact
- Steplessly adjustable speed for high quality welding
- Can be used in the most confined spaces

Technical Data

Voltage	V~	230
Power consumption	W	1700
Temperature	°C	20 – 600
Speed	m/min	0.5 – 3
Width of welding nozzle	mm	40 / 30
Dimensions (L × W × H)	mm	300 × 230 × 380
Weight	kg	4.15 (with 3 m cable, without guide aid)

Article No.

TRIAC DRIVE PID *without guide aid*	115.985	230 V, outside, without grip, with Euro plug, width of welding nozzle 40 mm with
TRIAC DRIVE PID *with guide aid*	138.860	230 V, inside, without grip, with Euro plug, width of welding nozzle 30 mm

Other versions on request **Additional accessories on page 18**

Accessories TRIAC DRIVE S

	**115.274**	Pressure roller 12 mm, steel
	115.176	Pressure roller 30 mm, steel
	115.712	Pressure roller 40 mm, steel
	138.570	Pressure roller 12 mm, silicon
	115.857	Pressure roller 30 mm, silicon
	115.921	Pressure roller 40 mm, silicon
	**115.276**	Single supporting carrier
	**115.281**	Overlap welding nozzle, inside, push-fit with grip, 38 mm
	115.279	with grip, 30 mm
	115.703	without grip, 38 mm
	115.701	without grip, 30 mm
	**115.280**	Overlap welding nozzle, outside, push-fit with grip, 38 mm
	115.278	with grip, 30 mm
	115.702	without grip, 38 mm
	115.700	without grip, 30 mm
	**100.296**	Heating element, 230 V, 1550 W, for TRIAC PID
	**138.549**	Guide aid for easy horizontal welding, e.g. for parapets, including: - 2 pressure rollers, silicon, 12 mm - 1 pressure roller, silicon, 30 mm - 1 overlap welding nozzle, inside, without grip, 30 mm

The practical Leister carrying case in included in delivery. (Art.-Nr.: 108.985)

The TRIAC DRIVE PID even allows horizontal welding.

Hot air welding machine

X84

Weighing just 6.1 kilograms, the X84 is recommended for high-pitched roofs; with its powerful drive, the X84 overcomes every slope with constant speed and welding quality.

- Small, light and compact
- Suitable for uneven surfaces
- Constant welding pressure
- Controlled welding speed

Technical Data

Voltage	V~	230
Power consumption	W	2300
Temperature	°C	20 – 600
Speed	m/min	0.5 – 3.5
Welding pressure	N	250
Air flow (20 °C)	l/min	Level 2: 150, Level 3: 190
Pressure static	Pa	Level 2: 1500 (15 mbar) Level 3: 2100 (21 mbar)
Width of welding nozzle	mm	30
Dimensions (L × W × H)	mm	300 × 310 × 250
Weight	kg	6.1 with 3 m cable

Article No.

X 84 *with guide-bar*	107.484	230 V, 2300 W, with CH plug

Other versions on request **Additional accessories on page 18**

The X 84 is the ideal machine when it comes to welding sub-roof membranes.

Accessories X 84

103.678 Heating element, 230 V, 2100 W

The matching Leister carrying case is available as an accessory. (Art.-no.: 126.448)

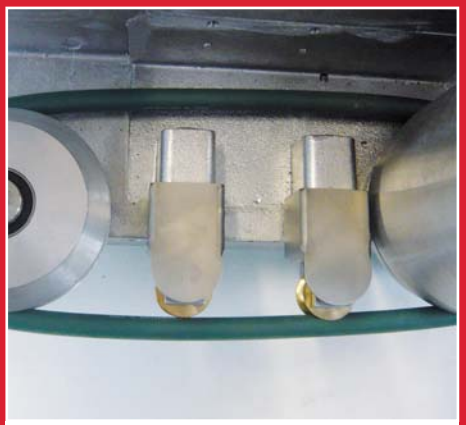
The X84 weighing 6.1 kg is easy and precise to operate.

BITUMAT B2

Ergonomic:
Height and angle of guide-bar can be adjusted easily

Easy operation:
Reliable adjustment of temperature and speed

Variable blower speed:
Tailor the amount of hot air needed to the material and the conditions



High process reliability:
The green air dam belt keeps the hot air in the weld seam

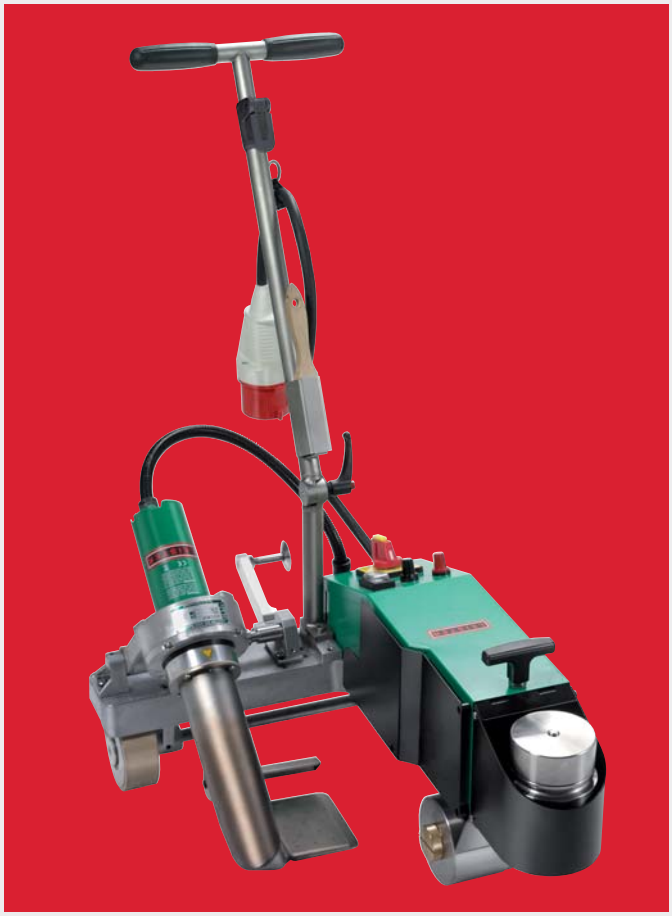
High-power nozzle:
Specially developed for bitumen. Allows working speeds up to 12 m/min.

Additional weight:
Spare pressure roller serves as additional weight where needed

Hot air welding machine

BITUMAT B2

Welding of modified bitumen sheeting (SBS, APP) with the flameless BITUMAT B2 is much faster than with an open flame. The weld strength is significantly better and the welding process is more economical.



- Flameless welding of modified bitumen
- Uniform welding results
- Easy control of hot air volume
- High working speed
- Requires only one user to efficiently weld seams (for open flame two are required, one for heating and one for pressing on)

Technical Data

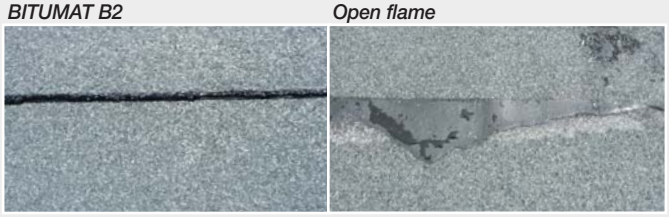
Voltage	V~	230	400
Power consumption	W	6700	6700
Temperature	°C	20 – 650	
Speed	m/min	0.8 – 12	
Air flow range	%	85 – 100	
Welding nozzle width	mm	75 / 100	
Dimensions (L × W × H)	mm	690 × 490 × 330	
Weight	kg	40 (with cable)	

Article No.

BITUMAT B2	140.438	400 V / 75 mm, 16 A-CEE- plug
	140.437	400 V / 100 mm, 16 A-CEE plug
	140.436	230 V / 75 mm, 32 A-CEE plug
	138.386	230 V / 100 mm, 32 A-CEE plug

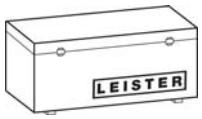
Other versions on request **Additional accessories on page 18**

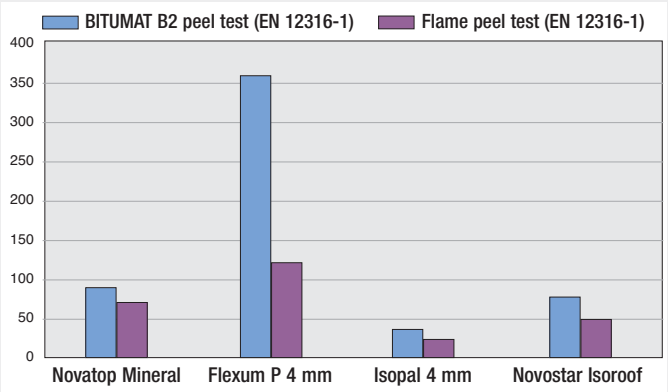
BITUMAT B2 *Open flame*



Considerably better welding results compared with open flame.

Accessories BITUMAT B2

	**138.048**	Bitumen nozzle 75 mm
	138.047	Bitumen nozzle 100 mm
	**137.895**	Pressure roller with gap 100 mm
	137.896	Pressure roller with gap 75 mm
	140.229	Pressure roller without gap 100 mm
	140.228	Pressure roller without gap 75 mm
	**140.476**	Lifting device for 75 mm version
	**140.489**	Sturdy storage case, 720 x 470 x 450 mm, multi-layer plate, green (included in delivery)
		Heating element
	126.594	400 V, 6500 W
	126.386	230 V, 6500 W



Significantly better weld seam strength.

Easy unit guidance and clean working with the BITUMAT B2.

Hot-wedge welding machine

COMET sub-roof

The COMET is smoke-free and very quiet. Thanks to the built-in guide system, the width of weld zone is homogeneous – resulting in no non-welded edges. It is especially suitable for pre-fabrication of sub-roof membranes.

- Smoke-free, low-noise welding using hot-wedge technology
- Digital temperature and speed display
- No non-welded edge zones
- Ideal for indoor applications

Ideal for pre-fabricators.

Accessories COMET sub-roof

129.224 Guide-bar, complete, adjustable

110.694 Fitting welding carriage

The fitting welding carriage transfers the drive to the sub-roof membrane located below. This enables friction-free, high-quality welding. The fitting welding carriage is especially suitable for thin, homogenous material. Welding with a guide rail is also possible for the pre-fabricator.

Technical Data

Voltage	V~	230
Power consumption	W	1500
Temperature	°C	20 – 420
Speed	m/min	0.8 – 7
Pressure static	N	100 – 1000
Material thickness	mm	up to 0.8 mm
USB-memory-stick		optional
Dimensions (L × W × H)	mm	355 × 250 × 245
Weight	kg	7.7 (with 3 m cable)

Article No.

COMET for sub-roof membranes	138.276	without fitting welding carriage

Other versions on request

Additional accessories on page 18

Overview welding machines

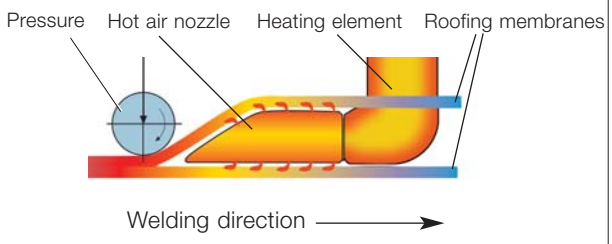




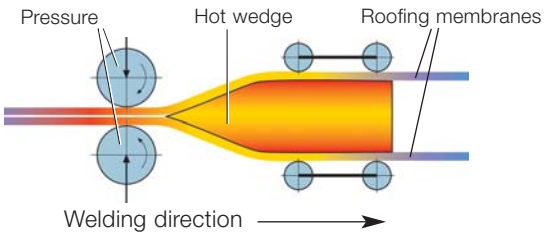

Materials	Plastic single ples					Modified bitumen
Type of welding machine	**VARIMAT V2**	**UNIROOF E**	**DRIAC DRIVE PID with guide aid**	**X84**	**COMET sub-roof sheeting**	**BITUMAT B2**
Main application	Large areas	Small areas, as supplement to the V2	Details, pitched roofs	For sub-roof membranes	For pre-fabricators	Large areas
Roof construction						
Flat roof	✓✓✓	✓✓✓	✓✓✓	✓	✓✓✓	✓✓✓
Sloping roof	✓	✓✓	✓✓	✓✓✓	✓	✓
Basic weld seams	✓✓✓	✓	✓	✓✓✓	✓✓✓	✓✓✓
Detail work	✓	✓✓✓	✓✓✓	✓	✓	✓
Special features	Operation with »e-Drive«	Up to 30° incline	Horizontal welding	Constant joining pressure	Indoor applications	No open flame
Fastening						
Mechanically fastened, hard substrate	X	X	X			X
Loosely laid, soft substrate				X	X	
Parapet spacing in mm	110	190 **	40	135	220	120
Electronics						
Controlled (close loop system)	X	X	X (blower)	X	X	
Controlled (open loop)			X (drive)			X
Speed m/min.						
Drive	0.7–12	1–5	0.5–3	0.5–3.5	0.8–7	0.8–12
Welding (depending on material)	4–8	2–3	1.5–3	1.5–2.5	3–4	3–6
Weight kg	35	12	4	6	7.7	40
Welding technology	Hot air*	Hot air	Hot air	Hot air	Hot wedge	Hot air

✓✓✓ = Highly suitable, ✓✓ = Suitable, ✓ Limited suitability * Brushless blower ** No gap necessary for laminated sheets

Welding technologies



Hot air welding machine
(Heating through heating element)



Hot wedge welding machine (COMET)
(Hot wedge is heated electrically)

TRIAC PID / TRIAC S

Digital display:
SETPOINT temperature adjusts and is controllable (TRIAC PID)

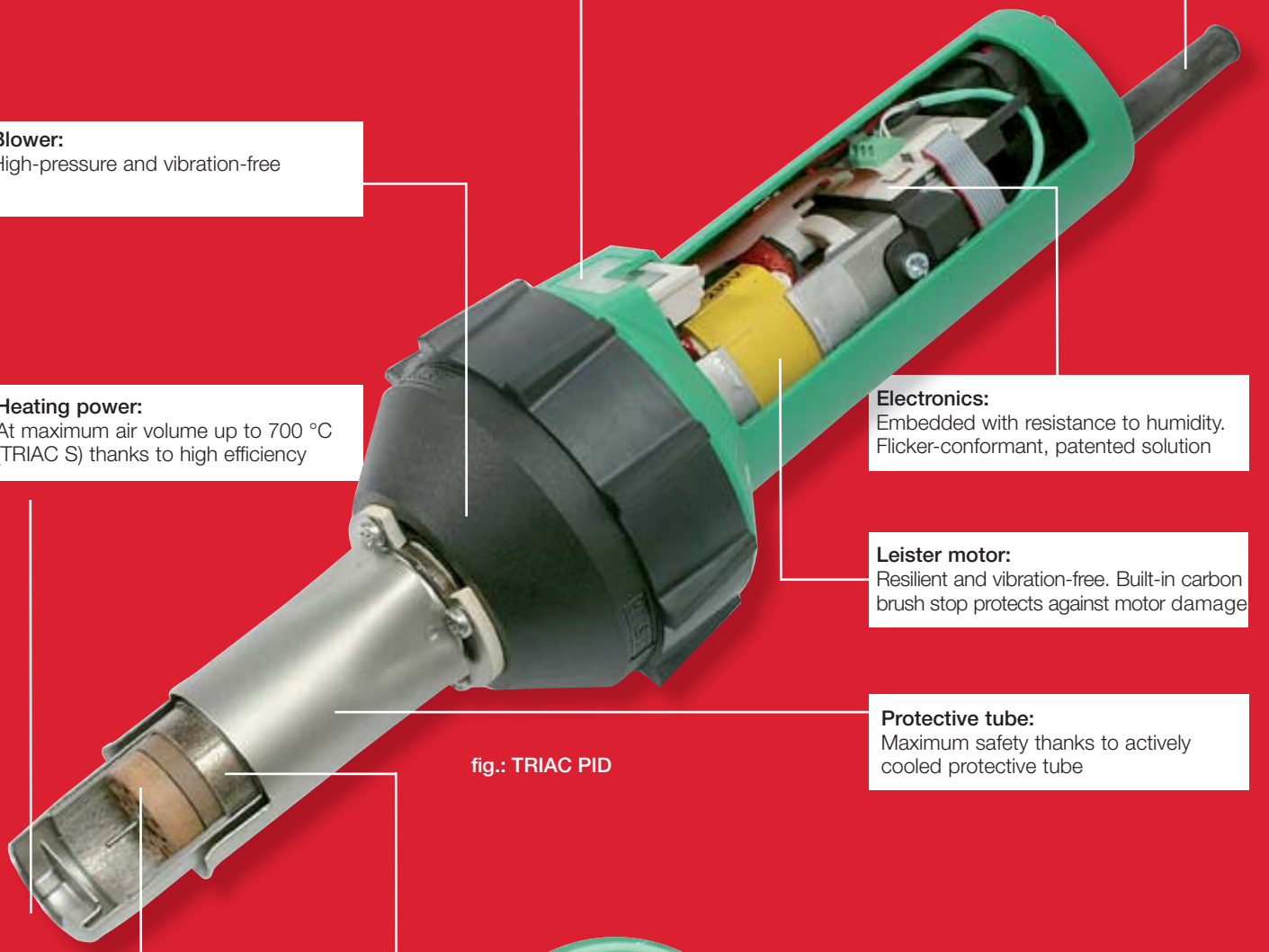
Cable:
Sturdy connection and extra protection against kinking

Blower:
High-pressure and vibration-free

Heating power:
At maximum air volume up to 700 °C (TRIAC S) thanks to high efficiency

Electronics:
Embedded with resistance to humidity. Flicker-conformant, patented solution

Leister motor:
Resilient and vibration-free. Built-in carbon brush stop protects against motor damage



Protective tube:
Maximum safety thanks to actively cooled protective tube

fig.: TRIAC PID

Leister heating element:
Longest service life in the world. Electronic overheating protection

Potentiometer:
For precise temperature adjustment

Mica tube:
Better insulation means greater personal protection

Replaceable filter:
Longer service life

TRIAC PID / TRIAC S

TRIAC PID: thanks to micro-processor controlled temperature and electronic monitoring. For welding with the highest quality.

TRIAC S: the reliable, cost-effective and proven hand tool with steplessly controlled temperature range.

- Heating element with the longest service life worldwide
- Built-in carbon brush stop prevents motor damage
- Reproducible results thanks to digital display of set and actual temperature
- Worldwide use under the most demanding conditions!

Technical Data

Voltage		V~	230
Power consumption		W	1600
Temperature	TRIAC PID	°C	50 – 600
	TRIAC S		20 – 700
Air flow (20°C)		l/min	230
Pressure static		Pa	approx. 3000 (30 mbar)
Dimensions (L × ∅)		mm	340 × 90, handle ∅ 56
Weight		kg	1.4 (with 3 m cable)

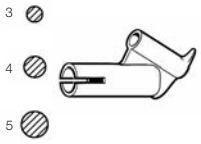
Article No.

TRIAC PID	100.741	230 V / 1600 W, Euro plug
TRIAC S	100.705	230 V / 1600 W, Euro plug

Other versions on request **Additional accessories on page 18**

There is space for everything you need in the practical carrying case provided.

Accessories TRIAC PID / TRIAC S

	**107.124**	Angled nozzle 20 mm, 90°, push-fit
	107.125	Angled nozzle 20 mm, 60°, push-fit
		Wide slot nozzles, push-fit
	107.132	40 mm
	107.130	40 mm, 60° bent
	107.133	40 mm, perforated
	128.535	30 mm, 45° bent
	**107.129**	Wide slot nozzle 60 mm for bitumen, push-fit
	107.131	Wide slot nozzle 80 mm, push-fit
	**107.123**	Wide slot nozzle 20 mm, push-fit
	**100.303**	Tubular nozzle ∅ 5 mm, push-fit
	**106.989**	Speed welding nozzle 3 mm, push-fit on tubular nozzle ∅ 5 mm
	106.990	Speed welding nozzle 4 mm, push-fit on tubular nozzle ∅ 5 mm
	106.991	Speed welding nozzle 5 mm, push-fit on tubular nozzle ∅ 5 mm
	**100.296**	Heating element, 230 V, 1550 W, for TRIAC PID
	100.689	Heating element, 230 V, 1550 W, for TRIAC S

The reliable TRIAC ensures prefect welding results.

Hand tool

ELECTRON

The powerful, and yet small and versatile, Leister ELECTRON is a hand tool, perfect for the specialist.

- Powerful
- Compact
- Robust
- Construction site tried and tested

Technical Data

VoltageV~		230	400
ower consumption	W	3400	5500
Temperature	°C	20 – 650	
Air flow (20°C)	l/min	320, manual air slide	
Pressure static	Pa	3000 (30 mbar)	
Dimensions (L × ∅)	mm	320 × 95, handle ∅ 64	
Weight	kg	1.5 (with 3 m cable)	

Article No.

ELECTRON	107.781	230 V / 3400 W, with Euro plug
ELECTRON for bitumen	107.788	400 V / 5500 W, with 16 A-CEE plug

Other versions on request **Additional accessories on page 18**

Accessories ELECTRON

	**107.258**	Wide slot nozzle, push-fit 70 × 10 mm, **for bitumen**
	107.134	Wide slot nozzle, push-fit 40 × 2 mm, **for bitumen**
	**107.266**	Wide slot nozzle 75 × 2 mm, push-fit, **with base**
	**113.269**	Heating element, 230 V / 3400 W
	101.273	Heating element,, 400 V / 5500 W

Practical base for more safety. Supplied with nozzle. Art.-no. 107.266

The powerful ELECTRON with a wide slot nozzle in use for welding bitumen.

Hand tool

HOT JET S

The most compact hand tool from Leister: HOT JET S' low weight, at just 600 grams, incl. cord and slim handle, ensures fatigue-free welding and high power.

- The world's smallest hand tool
- Electronic steplessly controlled temperature and air flow
- Low noise
- Integrated flexible base

Technical Data

Voltage	V~	230
Power consumption	W	460
Temperature	°C	20 – 600
Air flow (20°C)	l/min	20 – 80
Pressure static	Pa	max. 1600 (16 mbar)
Dimensions (L × ∅)	mm	235 × 70, handle ∅ 40
Weight	kg	0.6 (with 3 m cable)

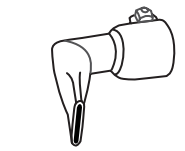
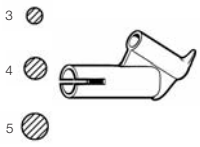
Article No.

HOT JET S	100.648	230 V, 460 W, Euro plug

Other versions on request

Additional accessories on page 18

Accessories HOT JET S

	**107.142** **107.141**	Wide slot nozzle 20 mm, push-fit Wide slot nozzle 15 mm, push-fit
	**107.144**	Tubular nozzle ∅ 5 mm, push-fit
	**105.556**	Angled nozzle 20 mm, 90°, push-fit
	**106.989** **106.990** **106.991**	Speed welding nozzle 3 mm, push-fit on tubular nozzle ∅ 5 mm Speed welding nozzle 4 mm, push-fit on tubular nozzle ∅ 5 mm Speed welding nozzle 5 mm, push-fit on tubular nozzle ∅ 5 mm
	**100.818**	Heating element 230 V, 435 W

The small and lightweight HOT JET S is ideal when space is restricted.

Tensiometer

EXAMO

Is the welding seam sealed and can it withstand the specified peeling, tensile and shearing forces? EXAMO performs right at the construction site – quick, reliable and uncomplicated.

- Handy, robust and light
- Digital display of elongation, peak force, tear force, test speed and position

Technical Data

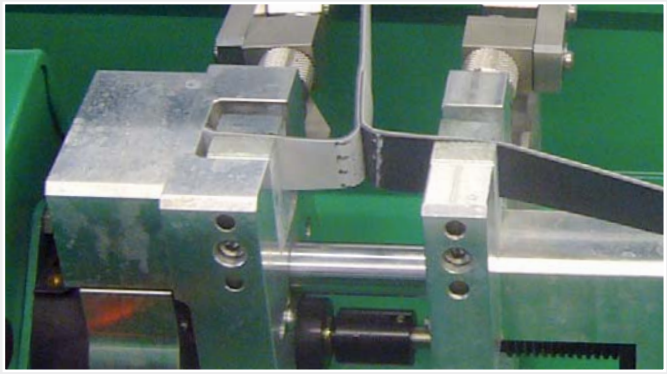
Type		300F	600F
Voltage	V~	230	230
Power consumption	W	200	200
Tensile load	N	4000	4000
Sample thickness	mm	max. 7	max. 7
Sample width	mm	max. 40 (60 optional)	max. 40 (60 optional)
Dimensions case (L × W × H)	mm	750 × 270 × 190	1050 × 270 × 190
Weight	kg	14	17.5

Article No.

EXAMO USB	139.059	139.060

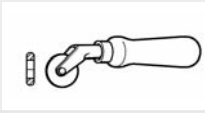
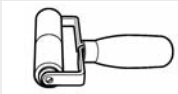
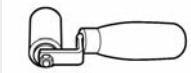
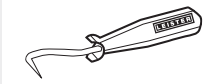
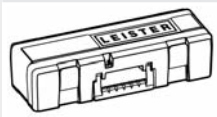
Other versions on request

Testing a weld seam with the EXAMO USB.



The USB stick ensures a verifiable evaluation of the welding results with the EXAMO.

Additional accessories for roofing

	**106.972**	Pressure roller with ball bearings (brass)
	**106.974**	Pressure roller 80 mm (silicon)
	**106.975**	One-arm pressure roller 40 mm, with ball bearings (silicon)
	**106.976** **106.977**	Pressure roller 28 mm (PTFE) Pressure roller 28 mm (silicon)
	**138.314**	Seam probe tester
	**111.346** **111.348**	Edge plane with 6 spare blades Spare blade kit with 10 blades
	**137.855** **138.902** **138.539**	Leister cutter with 5 blades 10 x 10 spare blades hook shape 10 x 10 spare blades trapezoid shape
	**116.586**	Carrying case, for TRIAC PID, TRIAC S, ELECTRON

Seam probe tester in use.

Breaking the edge of a T-seam with the edge plane.

The ideal combination of functionality and design: The new VARIMAT V2 (pages 4/5).

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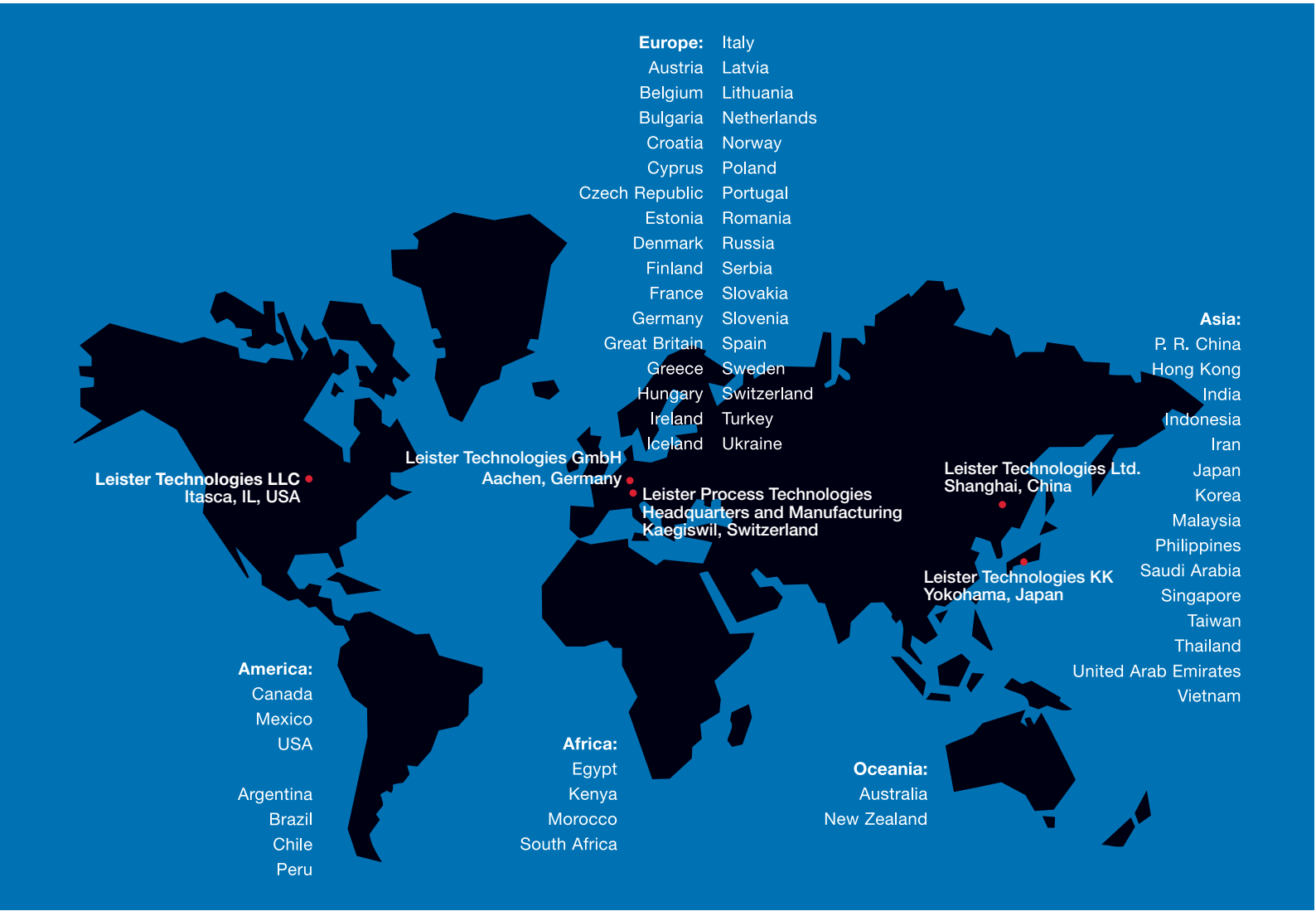
Specifications are subject to change without prior notice.



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Swiss Made Quality

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