



PLASTIC WELDING

**Weld roofing
membranes
with Leister.**

**Wrinkle-free
and faultless.**



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 50 years. For several years now we have also been offering innovative and effective laser systems and microsystems. 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, therefore, we have established a dense network of service centers throughout the world - guaranteeing excellent service anytime and anywhere.

Plastic welding

We have remained the worldwide market leader in this field for decades. The performance and reliability of our products make us the first choice for welding machines for plastic processing. Leister products are used in roof sealing systems, floor coverings, plastic sheeting, earthworks, hydraulic and tunnel engineering, process equipment manufacturing and for vehicle repair.

Process heat

Hot air is increasingly deployed in industrial processes, whether for activation, heating, curing, melting, shrinking, welding, sterilization, drying or warming. Certainly, Leister is the preferred choice. Our customers profit from our extensive engineering knowledge and our advice in the conceptual design of hot-air applications.

Laser systems

Our innovative solutions for precision plastic welding open up new manufacturing methods. Laser systems are used in automobile production, medical and sensor assembly, microsystems technology or for soldering electronic components. As the technological leader, Leister possesses the knowledge, methods, and patented concepts, which are perfectly suited to fulfil specific customer requirements.

Microsystems

In today's world the smallest structures play a huge roll. To keep our customers ahead of the field in the future, we are developing and producing micromechanical sensors and micro-optical components in our clean rooms today.

Leister Process Technologies is an **ISO 9001:2000** certified enterprise.



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Roof stays sealed using Leister.

First rate quality is called for when laying and welding roofing membranes. After all, small errors can have expensive repercussions. That is why professionals rely on Leister and our line of precise, durable and easy-to-operate devices. 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 elastomer bitumen roofing membranes. As the worldwide market leader in the hot air plastic welding industry, Leister knows what roofing professionals need to succeed.

Hot air welding machine

VARIMAT V

This tried and tested automatic welding machine for roofing membranes is now better than ever: the new VARIMAT V also displays voltage and welding seam length. A model specifically for overlap welding of elastomer bitumen is also available.



- Overlap welding of PVC-P, ECB, EPDM, CSPE and TPO roofing membranes as well as elastomer bitumen
- Easy welding, also of homogenous and thin roofing membranes
- Wrinkle-free welding up to 5 m/min
- Patented pendulum pressure roller guarantees uniform pressure also on uneven surfaces
- Digital display of set and actual values of welding speed and temperature
- Constant temperature and speed independent of voltage fluctuations and ambient temperature

Technical Data		(for bitumen)		
Voltage	V~	230	400	(400)
Power consumption	W	4600	5700	(6300)
Frequency	Hz	50 / 60		
Temperature	°C	20 – 620		
Speed	m/min	0.5 – 5		
Welding pressure	N	190		
Air flow range	%	50 – 100		
Pressure static	Pa	500 (50 mbar)		
Noise emission level L _{pA}	dB	67		
Welding seam width	mm	40	(80, 100, 120)	
Size (L × W × H)	mm	640 × 430 × 330		
Weight	kg	35 with 5 m cord	(38)	
Marking of conformity		CE		
Approval mark		S		
Protection class I		⊕		

Semi automatic welding tool

TRIAC DRIVE PID

Horizontal, vertical, diagonal. This tried and tested semi-automatic welding machine can be used universally. The increased welding speed compared with manual welding gives rise to higher productivity.



- Overlap welding of PVC-P, ECB, EPDM, CSPE and TPO roofing membranes
- Faster and more efficient than hand welding
- Small and compact
- Steplessly adjustable speed for high welding seam quality
- Can be used in the most confined spaces
- Different welding seam widths

Technical Data			
Voltage	V~	120	230
Power consumption	W	1700	
Frequency	Hz	50 / 60	
Temperature	°C	20 – 600	
Speed	m/min	0.5 – 3	
Noise emission level L _{pA}	dB	65	
Welding seam width	mm	30 40	
Size L × W × H	mm	300 × 230 × 380	
Weight	kg	4.15 with 3 m cord	
Marking of conformity		CE	
Approval mark		S	
Certification scheme		CCA	
Protection class I		⊕	

Hot air welding machine

X84

Weighing just 6.1 kilograms, the X84 can also be used on high-pitched roofs; with its powerful drive, the X84 overcomes every slope with constant speed and welding quality.



- Small, light and compact
- Also suitable for uneven surfaces
- Constant welding pressure
- Controlled welding speed
- Choice of two levels for air flow

Technical Data		
Voltage	V~	120 230
Power consumption	W	1900 2300 / 2900
Frequency	Hz	50 / 60
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)
Noise emission level L_{pA}	dB	67
Welding seam width	mm	30
Size (L × W × H)	mm	300 × 310 × 250
Weight	kg	6.1 with 3 m cord
Marking of conformity		CE
Approval mark		Ⓢ
Protection class II		Ⓜ

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		
Voltage	V~	42 120 200 230 230
Power consumption	W	1000 2700 3000 2300 3400
Frequency	Hz	50 / 60
Temperature	°C	20 – 650
Air flow (20°C)	l/min	320, manual air slide
Pressure static	Pa	3000 (30 mbar)
Noise emission level L_{pA}	dB	65
Size (L × Ø)	mm	320 × 95, handle Ø 64
Weight	kg	1.5 (with 3 m cord)
Marking of conformity		CE
Approval mark		Ⓢ
Certification scheme		CCA
Protection class II		Ⓜ



VARIMAT V used for overlap welding of plastic roofing membranes.



TRIAC DRIVE PID used for welding plastic roofing membranes in a light dome.



X84 used to weld an under-roof liner on a high-pitched roof. Weighing only 6.1 kg, the X84 copes with any incline at constant speed.



TRIAC PID with a 20 mm wide slot nozzle and pressure roller used to weld plastic roofing membranes.

Hand tool

TRIAC PID

Thanks to micro-processor controlled temperature and electronic monitoring. The preferred hand tool for welding with high quality.



- Reproducible results thanks to digital display of set and actual temperature
- Welding results independent of voltage fluctuations and ambient temperature
- Adaptor tube with heat protection
- Electronic heating element protection
- Motor shut-off at minimal carbon level
- Suitable for continuous operation
- Multiple replacement of carbon brushes possible

Technical Data

Voltage	V~	42	100	120	200	230
Power consumption	W	1000	1400	1600	1400	1600
Frequency	Hz	50 / 60				
Temperature	°C	50 – 600				
Air flow (20°C)	l/min	230				
Pressure static	Pa	ca. 3000 (30 mbar)				
Noise emission level L_{pA}	dB	65				
Size (L x Ø)	mm	340 x 90, handle Ø 56				
Weight	kg	1.4 (with 3 m cord)				
Marking of conformity		CE				
Approval mark		S				
Certification scheme		CCA				
Protection class II		□				

Hand tool

TRIAC S

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



- Adaptor tube with heat protection
- Electronic heating element protection
- Motor shut-off at minimal carbon level
- Multiple replacement of carbon brushes possible
- Suitable for continuous operation

Technical Data

Voltage	V~	42	100	120	200	230
Power consumption	W	1000	1400	1600	1400	1600
Frequency	Hz	50 / 60				
Temperature	°C	20 – 700				
Air flow (20°C)	l/min	230				
Pressure static	Pa	ca. 3000 (30 mbar)				
Noise emission level L_{pA}	dB	65				
Size (L x Ø)	mm	340 x 90, handle Ø 56				
Weight	kg	1.4 (with 3 m cord)				
Marking of conformity		CE				
Approval mark		S				
Certification scheme		CCA				
Protection class II		□				

Hand tool

HOT JET S

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



- Worldwide the smallest hand tool
- Electronic steplessly controlled temperature
- Electronic steplessly controlled air flow
- Electronic heating element protection
- Low noise
- Integrated flexible tool stand

Technical Data

Voltage	V~	100 120 230
Power consumption	W	460
Frequency	Hz	50 / 60
Temperature	°C	20 – 600
Air flow (20°C)	l/min	20 – 80
Pressure static	Pa	max. 1600 (16 mbar)
Noise emission level L_{pA}	dB	59
Size (L x Ø)	mm	235 x 70, handle Ø 40
Weight	kg	0.6 (with 3 m cord)
Marking of conformity		CE
Approval mark		Ⓢ
Certification scheme		CCA
Protection class II		Ⓜ

Tensiometer

EXAMO

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





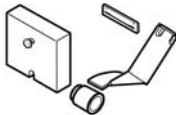
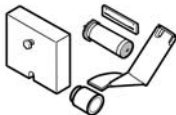
- Designed for construction site conditions
- Handy, robust and light
- Digital display of elongation, peak force, tear force, test speed and position
- With optional data recording on a memory card
- Optional for geotextiles

Technical Data

		300F	600F
Typ		300F	600F
Voltage	V~	120 230	120 230
Power consumption	W	200	200
Frequency	Hz	50 / 60	50 / 60
Tensile load	N	4000	4000
Jaw spacing	mm	5 – 300	5 – 600
Range	mm	300	600
Testing speed	mm/min	10 – 300	10 – 300
Sample thickness	mm	max. 7	max. 7
Sample width	mm	max. 40 (60 optional)	max. 40 (60 optional)
Force sensor		yes	yes
Memory card recording		optional	optional
Size (L x W x H)	mm	750 x 270 x 190 (storage case)	1050 x 270 x 190 (storage case)
Weight	kg	14	17.5
Marking of conformity		CE	CE
Approval mark		Ⓢ	Ⓢ
Protection class I		Ⓜ	Ⓜ

Accessories for Roofing

106.972		Pressure roller with ball bearings (brass)	107.131		Wide slot nozzle 80mm, push-fit > TRIAC PID > TRIAC S
106.974		Pressure roller 80 mm (silicon)	107.132		Wide slot nozzle 40 mm, push-fit > TRIAC PID > TRIAC S
106.975		One-arm pressure roller 40 mm, with ball bearings (silicon)	107.133		Wide slot nozzle 40 mm, perforated push-fit > TRIAC PID > TRIAC S
106.976		Pressure roller 28 mm (PTFE)	107.142		Wide slot nozzle 20 mm, push-fit > HOT JET S
106.977		Pressure roller 28 mm (silicon)	107.144		Tubular nozzle Ø 5 mm, push-fit > HOT JET S
106.989		Speed welding nozzle 3 mm, push-fit on tubular nozzle Ø 5 mm	100.303		Tubular nozzle Ø 5 mm, push-fit > TRIAC PID > TRIAC S
106.990		Speed welding nozzle 4 mm, push-fit on tubular nozzle Ø 5 mm			
106.991		Speed welding nozzle 5 mm, push-fit on tubular nozzle Ø 5 mm			
107.123		Wide slot nozzle 20 mm, push-fit > TRIAC PID > TRIAC S	107.258		Wide slot nozzle 70 x 10 mm, push-fit > ELECTRON
107.124		Angled nozzle 20 mm, 90°, push-fit > TRIAC PID > TRIAC S	107.266		Wide slot nozzle 75 x 2 mm, push-fit (with tool holder) > ELECTRON
107.125		Angled nozzle 20 mm, 60°, push-fit > TRIAC PID > TRIAC S	115.274 115.176 115.186		Pressure roller 12 mm Pressure roller 30 mm Pressure roller 38 mm > TRIAC DRIVE PID
107.129		Wide slot nozzle 60 mm, push-fit > TRIAC PID > TRIAC S	115.275		Double supporting carrier > TRIAC DRIVE PID
107.130		Wide slot nozzle 40 mm, 60° bent, push-fit > TRIAC PID > TRIAC S	115.276		Single supporting carrier > TRIAC DRIVE PID
			115.284		Guide handle > TRIAC DRIVE PID

<p>115.283 115.279 115.281 115.699 115.701 115.703</p>		<p>Overlap welding nozzle 12 mm, with grip, inside, push-fit Overlap welding nozzle 30 mm, with grip, inside, push-fit Overlap welding nozzle 38 mm, with grip, inside, push-fit Overlap welding nozzle 12 mm, without grip, inside, push-fit Overlap welding nozzle 30 mm, without grip, inside, push-fit Overlap welding nozzle 38 mm, without grip, inside, push-fit</p>
<p>115.282 115.278 115.280 115.698 115.700 115.702</p>		<p>Overlap welding nozzle 12 mm, with grip, outside, push-fit Overlap welding nozzle 30 mm, with grip, outside, push-fit Overlap welding nozzle 38 mm, with grip, outside, push-fit Overlap welding nozzle 12 mm, without grip, outside, push-fit Overlap welding nozzle 30 mm, without grip, outside, push-fit Overlap welding nozzle 38 mm, without grip, outside, push-fit</p>
<p>108.923 108.924 108.925</p>		<p>Welding unit bitumen-kit 80 mm, 230V~ Welding unit bitumen-kit 100 mm, 230V~ Welding unit bitumen-kit 120 mm, 230V~</p>
<p>108.926 108.927 108.928</p>		<p>Welding unit bitumen-kit 80 mm, 400V~ / 6100W Welding unit bitumen-kit 100 mm, 400V~ / 6100W Welding unit bitumen-kit 120 mm, 400V~ / 6100W</p>



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Our close worldwide network of more than 120 Sales and Service Centres in more than 60 countries.