



PLASTIC WELDING

**Weld roofing  
membranes  
with Leister.**

**Wrinkle-free  
and faultless.**



# 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                             | %     | 50 - 100              |                |
| Pressure static                      | Pa    | 500 (50 mbar)         |                |
| Noise emission level L <sub>pA</sub> | 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                     |                |
| Certification scheme                 |       | CCA                   |                |
| 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 hand 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               | 1700 |
| Frequency                            | Hz    | 50 / 60            |      |
| Temperature                          | °C    | 20 – 600           |      |
| Speed                                | m/min | 0.5 – 3            |      |
| Noise emission level L <sub>pA</sub> | 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)<br>Level 3: 2100 (21 mbar) |
| Noise emission level L <sub>pA</sub> | 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 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       |
| Power consumption                    | W     | 1000                  | 2700 | 3000 | 2300 3400 |
| Frequency                            | Hz    | 50 / 60               |      |      |           |
| Temperature                          | °C    | 20 – 650              |      |      |           |
| Air flow (20°C)                      | l/min | 500, manual air slide |      |      |           |
| Pressure static                      | Pa    | 3000 (30 mbar)        |      |      |           |
| Noise emission level L <sub>pA</sub> | 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                        |       | Ⓢ                     |      |      |           |
| 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

With stepless temperature control and electronic monitoring, the TRIAC PID is the preferred hand tool for works 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 × Ø)                  | mm    | 340 × 90, handle Ø 56 |      |      |      |      |
| Weight                        | kg    | 1.4 with 3 m cord     |      |      |      |      |
| Marking of conformity         |       | CE                    |      |      |      |      |
| Approval mark                 |       | E                     |      |      |      |      |
| Certification scheme          |       | CCA                   |      |      |      |      |
| Protection class II           |       | □                     |      |      |      |      |

## Hand tool

### TRIAC S

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



- 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 × Ø)                  | mm    | 340 × 90, handle Ø 56 |      |      |      |      |
| Weight                        | kg    | 1.4 with 3 m cord     |      |      |      |      |
| Marking of conformity         |       | CE                    |      |      |      |      |
| Approval mark                 |       | E                     |      |      |      |      |
| 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 working.



- 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 × Ø)                  | mm    | 235 × 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 required peeling, tensile and shearing forces? EXAMO performs right on the construction site – quick, reliable and uncomplicated.





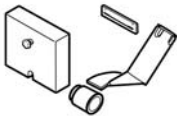
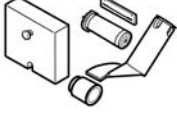
- Designed for construction site conditions
- Handy, robust and light
- Digital display of elongation, peak force, tear force, test speed and position
- With optional data recording on a memory card
- Optionally for geotextiles

#### Technical Data

|                       |        | 300F                           | 600F                            |
|-----------------------|--------|--------------------------------|---------------------------------|
| Type                  |        | 300F                           | 600F                            |
| Voltage               | V~     | 120 230                        | 120 230                         |
| Power consumption     | W      | 200 200                        | 200 200                         |
| Frequency             | Hz     | 50 / 60                        | 50 / 60                         |
| Tensile load          | N      | 4000                           | 4000                            |
| Jaw spacing           | mm     | 5 – 300                        | 5 – 300                         |
| 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 × W × H)      | mm     | 750 × 270 × 190 (Storage case) | 1050 × 270 × 190 (Storage case) |
| Weight                | kg     | 14                             | 17.5                            |
| Marking of conformity |        | CE                             | CE                              |
| Approval mark         |        | Ⓢ                              | Ⓢ                               |
| Certification scheme  |        | CCA                            | CCA                             |
| Protection class I    |        | Ⓜ                              | Ⓜ                               |

## Accessories for Roofing

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

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

Technical data are subject to change without notice.

Nozzles are not included to the hand tools.



**Headquarter:**

Leister Process Technologies  
Riedstrasse  
6060 Sarnen/Switzerland  
phone: +41 41 662 74 74  
fax: +41 41 662 74 16  
leister@leister.com

**China:**

Leister Technologies Ltd.  
Building A, 1588 Zhuanxing Road  
Shanghai 201 108 PRC  
phone: +86 (21) 6442 2398  
fax: +86 (21) 6442 2338  
leister@leister.cn



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