

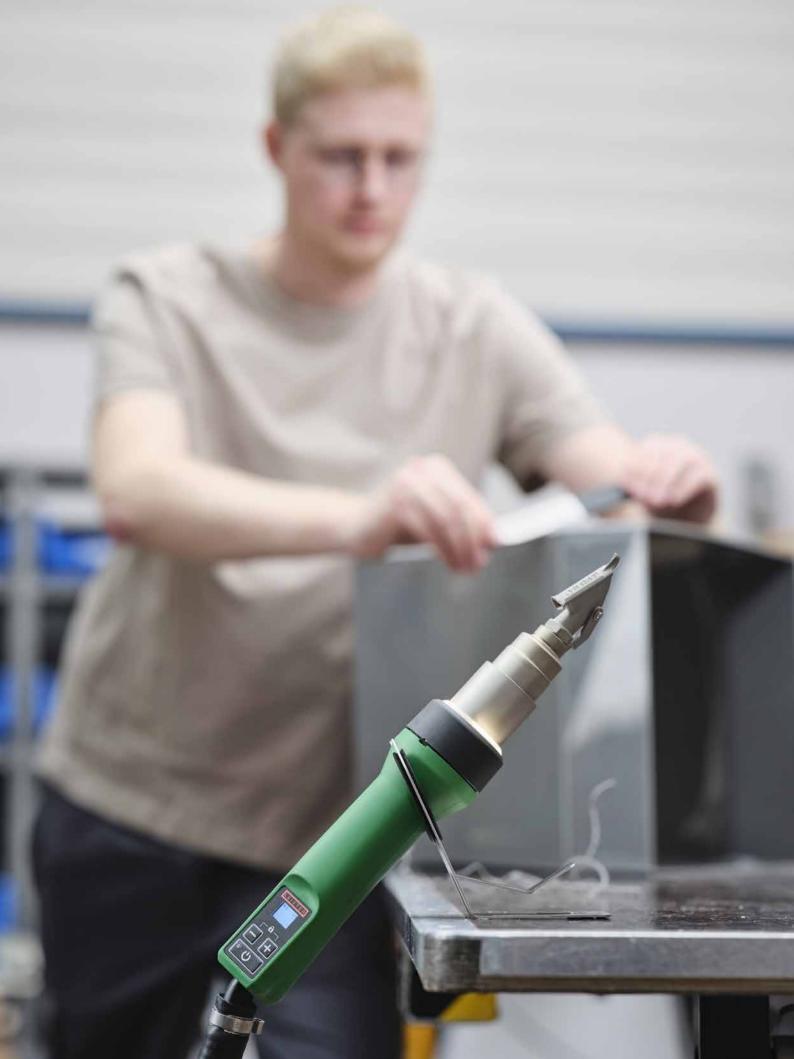
Plastic Fabrication



Extrusion and hot-air hand welders

The right choice for the specialist







Dear Leister customers

The selection of machines and equipment greatly influences the quality and success of your work. That is why we offer solutions that you can always count on and with which you are guaranteed to be able generate added value.

Our goal is to exceed your expectations. All of our devices and machines are designed and produced in Switzerland, because for us, quality and innovation are the highest priority. We have more than 70 years of experience in the fields of plastic welding and industrial process heat applications, and are constantly expanding this. Through direct contact with you in your workshop, at the construction site and through social media, we collect the necessary input that we then incorporate into the next generation of devices. Our engineers and designers combine your ideas with the latest technology to create unique products that meet your requirements. Here, we place particular importance on functionality, ergonomics and durability. That is why you can count on a reliable welder in all locations and environments.

We maintain a global and close-knit service and distribution network which enables us to serve you quickly and easily. Our expert distributors and own associations ensure that you can access our services across the globe.

In the following pages, see for yourself how our extensive product range will be able to support you in your work. You will also find a great deal of useful information on plastic welding in the brochure. Motivated by our principle, "Leister. We know how," we are eager to share our experience with you in order to make your work easier.

I hope you enjoy reading our brochure!

Reto Britschgi

Product Manager Plastic Fabrication

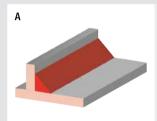


Plastic welding with Leister

With plastic welding, workpieces made of thermoplastic are joined inseparably to one another using a combination of thermal energy and pressure. Central factors are welding speed and the length of the welding process. Plastic welding is used in many areas: For the processing of tarpaulins and plastic sealing sheets, on the roof, in earthworks, hydraulic engineering or tunnel construction, for floor coverings, in vehicle repairs and in equipment construction.

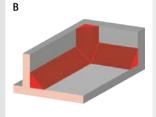
Know-how

Welding seam geometries galvanic tank



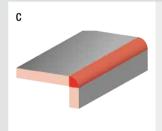
Fillet weld

The fillet weld is one of the most frequently-use seam geometries. It is produced by welding two workpieces that meet in a T-joint.



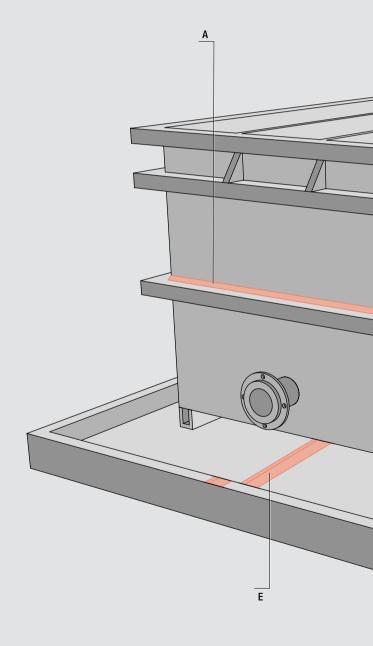
Interior corner seam

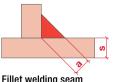
Interior corner seams are generally used on difficult-to-reach locations. Free forms and spline-shaped weld seam geometries are welded most efficiently like this.

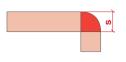


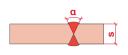
Corner seam appearance

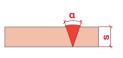
The outer corner seam is a fillet weld in which the weld seam runs along the edge of the workpieces which are standing together. Consequently, the weld is made along the outer longitudinal side (edge).

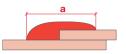












Fillet welding seam Corner outside seam

a = s * 0.7

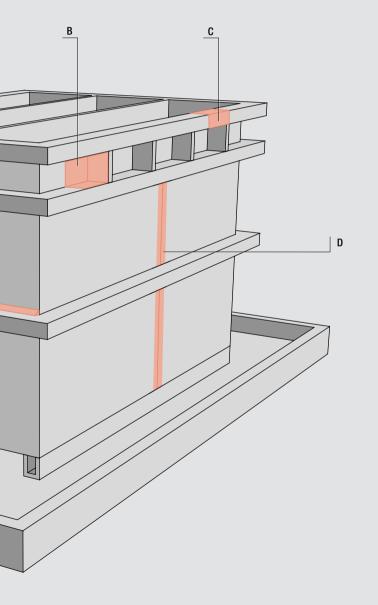
X-seam

 $s = 10 - 40 \text{ mm} = \alpha 60^{\circ}$ $s = 50 - 60 \text{ mm} = \alpha 50^{\circ}$

V-seam

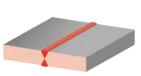
 $s = 5 - 20 \text{ mm} = \alpha 60^{\circ}$ $s = 25 - 30 \text{ mm} = \alpha 50^{\circ}$

Overlap seam



X-seam

The double-V seam is also known as an X-seam. It is a type of butt weld and consists of a combination of two V-seams on each of the two sides of the components to be joined.



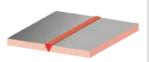
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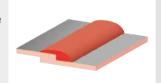
V-seam

In order to achieve the V-shaped angle that is typical for the V-seam, the workpieces are either beveled or positioned at an appropriate angle to each other.



Lap seam

Lap seams are mainly used for plastic sheets. Here, the sheets are arranged on top of each other and the weld seam is laid on the upper exposed material edge.





FUSION 2, compact and powerful

know-how

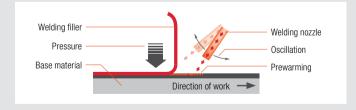
Thermal joining of plastics

Plastic welding requires a correspondence between the three welding parameters temperature, pressure and speed. In contrast to other joining methods, welding can achieve high resiliency and a strong, homogeneous welding seam. Plastic compounds are extremely robust and perfectly sealed when processed correctly. They can also be repaired without a loss of strength.

Hot gas welding with the torch separate from filler rod (WF)

Hot gas welding with the torch separate from filler rod is used primarily for areas that are difficult to access and for short seams. This welding process is preferred for processing amorphous plastics, in particular PVC. Especially with manual welding, pay special attention to maintaining uniform pressure and constant speed.

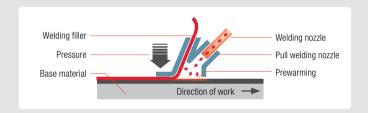
During welding, press the wire by hand vertically onto the groove. The force applied depends on the base material chosen and the dimension of the welding wire. Apply the heat flowing out of the tubular nozzle alternately to the welding wire and to the joint in an oscillating motion in the direction of welding until the end of the seam is reached. When realized correctly with the right temperature and appropriate pressure, a welding seam is formed on both sides of the weld bead in the form of a uniform double bead.



High-speed hot gas welding (WZ)

High-speed hot gas welding requires a high-speed welding nozzle that corresponds to the shape of the fill material. The process is faster, more uniform, and consequently more efficient than pendulum welding. Furthermore, larger cross-sectional surfaces of the welding wire can be processed in one pass. This leads to less residual stress and thus to a lower welding effort.

Hold the welder with one hand, and with the other hand, press the welding wire into the nozzle. The nozzle design divides the hot gas, which in this way heats both the base material and the fill material. The latter is led through a preheating chamber and plasticized shortly before the two materials meet. The presser flap on the end of the nozzle is responsible for the welding force. You can finish the resulting weld seam using a suitable scraper after the welding process.

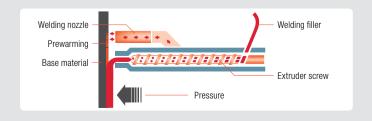


Hot gas extrusion welding (WE)

Hot gas extrusion welding is preferred over high-speed hot gas welding for wall thicknesses from about 6 mm. With extrusion welding, shorter working times, higher strength and lower internal stress is expected compared to manual welding. This leads to higher process reliability and greater efficiency.

For this, you require a welding shoe corresponding to the welding geometry and a welding filler consisting of the same material as the base material, which is plasticized in the extruder.

First, put joining surfaces into the thermoplastic state using hot air. Immediately press the extrudate onto the surfaces or into the joint using the welding shoe. Depending on the working position, you should apply different intensities of pressure. Welding speed is determined by the quantity of extrudate and by the dimensions of the weld seam. In addition, it must correspond to the prewarming of the base material.





Welding parameters for hand welding

Based on DVS 2207-3

Welding Process	Materials	Abbreviations	Hot gas temperature ¹⁾ °C	Hot gas volume flow ²⁾ I/min	Welding speed 3)		force (N) wire ø 4mm
	High-density polyethylene	PE-HD ⁴⁾	300 320	40 50	70 90	8 10	20 25
	Polypropylene, Types 1, 2, 3	PP-H; PP-B; PP-R	305 315	40 50	60 85	8 10	20 25
	Unplasticised polyvinyl chloride	PVC-U	330 350	40 50	110 170	8 10	20 25
	Chlorinated polyvinyl chloride	PVC-C	340 360	40 50	55 85	15 20	20 25
	Polyvinylidene fluoride	PVDF	350 370	40 50	45 50	15 20	25 30
Free hand welding	Acrylonitrile butadiene styrene	ABS 6)	350	N/A	N/A	N/A	N/A
(WF)	Polycarbonate	PC 6)	350	N/A	N/A	N/A	N/A
,	Polyamide	PA ⁶⁾	400	N/A	N/A	N/A	N/A
	Polybutylene terepht- halate	PBT ⁶⁾	350	N/A	N/A	N/A	N/A
	Low-density polyethylene	PE-LD ⁶⁾	270	N/A	N/A	N/A	N/A
	Polyurethane	PUR (Thermoplast) 6)	300	N/A	N/A	N/A	N/A
	XENOY	XENOY PC/PBTB 6)	350	N/A	N/A	N/A	N/A
	Plasticised polyvinyl chloride	PVC-P 6)	350	N/A	N/A	N/A	N/A
	Polyethylene terephthala- te glycol-modified	PETG ⁶⁾	200 215	N/A	N/A	N/A	N/A
	High density polyethylene	PE-HD	300 340	45 55	250 350	15 20	25 35
	Polypropylene, Types 1, 2, 3	PP-H; PP-B; PP-R	300 340	45 55	250 350	15 20	25 35
	Unplasticised polyvinyl chloride	PVC-U	350 370	45 55	250 350	15 20	25 35
	Chlorinated polyvinyl chloride	PVC-C	370 390	45 55	180 220	15 25	30 35
Draw welding (WZ)	Polyvinylidene fluoride	PVDF	365 385	45 55	200 250	15 25	30 35
	Ethylene Chloro Tri Fluoro Ethylene	E/CTFE 5)	350 380 5)	50 60 5)	220 250	10 15	N/A
	Fluorinated ethylene propylene	FEP	380 390	50 60	60 80	10 15	N/A
	Tetrafluorethylen Perfluormethylvinylether	MFA	395 405	50 60	60 80	10 15	N/A
	Perfluoroalkoxy alkanes	PFA	400 410	50 60	70	10 15	N/A

Please note:
The indicated welding parameter may vary depending on the ambient temperature and the material configuration.
Test welds need to be done and the parameter aligned accordingly! Leister takes no responsibility for poor quality welding!

Measured 5mm in the nozzle, in the centre of the nozzle opening.
 Drawn-in cold air volume at the ambient pressure.
 Depending on the welding filler material diameter and the welding groove geometry.
 PE 63, PE 80, PE 100
 Nitrogene recommended
 LEISTER empiric parameters

Welding parameters for extrusion welding

Based on DVS 2207-4

Welding Process	Materials	Abbreviations	Material temperature ¹⁾ °C	Hot gas temperature ²⁾ °C	Hot gas volume flow ³⁾ I/min	Welding speed ⁵⁾
	High-density polyethylene	PE-HD ⁴⁾	210-230	250-300	150-400	200-350
	Polypropylene, Types 1, 2, 3	PP-H; PP-B; PP-R	210-240	250-300	150-400	200-350
	Unplasticised polyvinyl chloride	PVC-U	190–200	330–360	150-400	200-350
Extrusion welding (WE)	Impact resistant polyvinyl chloride	PVC-HI	170–180	280-340	150-400	200-350
	Chlorinated polyvinyl chloride	PVC-C	195–210	300-360	150-400	200-350
	Polyvinylidene fluoride	PVDF	240–260	280-350	150-400	200-350
	Polyamide 6 6)	PA 6	280	315	150-400	200-350
	Polycarbonate 6)	PC	270	315	270	200-350
	Acrylonitrile butadiene styrene ⁶⁾	ABS	265	300	150	200-350
	Polystirene 6)	PS	245	280	150-400	200-350
	Polypropylen Athylen Propylen Terpolymer ⁶⁾	PP-EPDM	200-230	200–290	150-400	200-350
	Polyurethane (Thermoplast) 6) 7)	PUR	180	260-300	150-400	200-350

Measured with an insert thermometer at the exrudate outlet of the hand extruder. Measured 5mm in the nozzle, in the centre of the nozzle opening. Drawn-in cold air volume at the ambient pressure. PE 63, PE 80, PE 100 Cold air intake volume at ambient pressure, depending on the output volume. LEISTER empiric parameters Welding rod has to be predryed

Please note:
The indicated welding parameter may vary depending on the ambient temperature and the material configuration.
Test welds need to be done and the parameter aligned accordingly! Leister takes no responsibility for poor quality welding!



Know-how

Welding errors

In addition to a failure to adhere to the welding parameters, the following errors can lead to cavities, vacuoles and poor weld quality:

- Excessively high temperature
- Residual moisture in the welding filler
- Excessively high air humidity
- Wet hands
- Excessively cold welding shoe
- Low-quality plastic

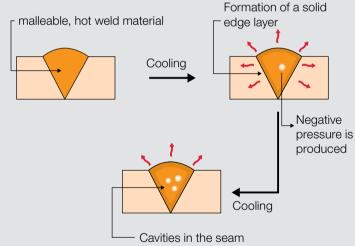
Base material and welding filler made of polyolefins can absorb moisture. The thicker the seam, the more frequently these phenomena occur. For this reason, you should store materials in a dry place and in their original packaging. You should avoid temperature differences between the welding parts to prevent the formation of condensation. Very thick welding seams must be welded in several work steps.



Rough surfaces on the seam can therefore be because...

- ...the welding shoe is too short.
- ...the welding shoe is too cold.
- ...the surface over which the welding shoe glides is too rough.

Vacuoles are caused by the excessively fast cooling of large weld seam cross-sections.





Bad example



Good example

Fields of application

Hot gas welding with the torch separate from filler rod, highspeed hot gas welding and hot gas extrusion welding are used in many areas.

General tank construction

Plastic is preferred for producing receptacles and tanks. Depending on the storage medium, they have significant advantages over metallic materials.

Galvanic

Galvanic processes are usually carried out using chemicals. The baths must also be resistant to thermal and electrical influences.

Water management

Fresh water and service water infrastructures place high demands on hygiene and corrosion. Thermoplastics offer stable behavior in this respect.

Ventilation

Ventilation systems in industrial environments often transport aggressive media. A long-term solution is only possible with the right plastic.

Maritime Industry

Boats, rafts and floating docks made of polyolefins are positively buoyant by nature, extremely robust and resistant to salt water.

Aquaculture, greenhouse beds

Aquaculture and greenhouses are very demanding in terms of microbes, fungi and chemical influences. Containers and pipes must be leaktight and capable of being sterilized.

Pipeline construction

Polyethylene is the preferred material for unpressurized pipelines and for jacket tubes for long-distance pipelines. It is very durable against mechanical stress and can be processed extremely flexibly.

Plastic repair

Expertly performed repairs on thermoplastics restore 100% of the original function.



Storage tanks made of polyethylene



Galvanic bath made of polypropylene © Collini collini.eu



Working boats mad of polypropylene





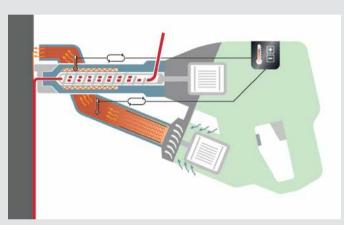


WELDPLAST - Closed loop system

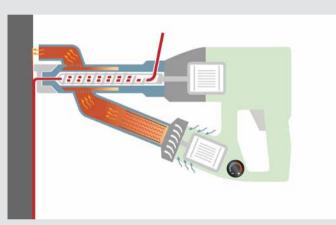
- Closed-loop control
- Little welding experience required
- Integrated display and temperature probe
- Precise temperature independent of environmental factors or quality of voltage source -> process reliability
- DVS-compliant

FUSION - Open loop system

- Open-loop control
- Requires more welding experience
- Neither display nor temperature probe
- Temperature depends on environmental factors and voltage source

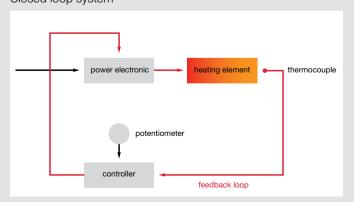


WELDPLAST

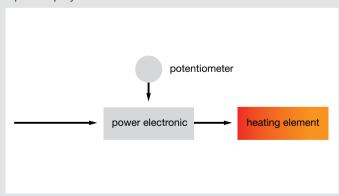


FUSION

Closed loop system



Open loop system









Air purification system, Spain. Material: HD-PE



The Wave House, San Diego. Material: PVC



Electroplating tank, Turkey. Material: PP

Plastic Fabrication

Overview of hand extruders	16
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The right tool for every application

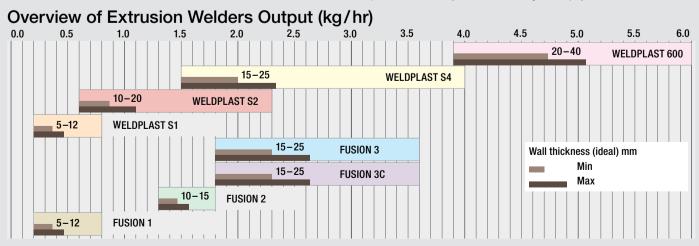
LEISTER hand extruders differ in their method of process control, output volume and design. To achieve optimal welding results, it is important to chose the right tool. Decisive selection criteria are the plastics to be processed, the thickness of the welding material, the product requirements and the welder's expertise. The following two tables serve as a selection guide. For more detailed information, please contact your LEISTER sales partner.

Product comparison

	Digitally regulated extrusion welders				Air heated extrusion welders			
			116				T ST	
Device type	WELDPLAST 600	WELDPLAST S4	WELDPLAST S2	WELDPLAST S1	FUSION 3	FUSION 3C	FUSION 2	FUSION 1
Output (HDPE) kg/hr	3.9 – 6	1.5 – 4	0.6 - 2.3	0.2 - 0.8	1.8 – 3.6	1.8 - 3.6	1.3 – 1.8	0.2 - 0.8
Material	HD-PE, PP	HD-PE, PP	HD-PE, PP, PVC	PE, PP, PVC, etc.	HD-PE, PP	HD-PE, PP	HD-PE, PP	PE, PP
Wall thickness mm	20 – 40	15 – 25	10 – 20	5 – 12	15 – 25	15 – 25	10 – 15	5 – 12
Welding rod \varnothing mm	4 – 5	3-4/4-5	3 – 4	3 – 4	3-4/4-5	3-4/4-5	4	3 – 4
Weight kg	14	8.7	5.8	4.7	7.2	6.9	5.9	3.4
Length mm	821	560	450	435	690	588	450	435
Voltage V~	230	230	230	230 / 120	230	230	230	230
Screw extruder	yes	yes	yes	yes	yes	yes	yes	yes
Container construction	√ √	//	$\checkmark\checkmark$	//	$\checkmark\checkmark$	$\checkmark\checkmark$	$\checkmark\checkmark$	$\checkmark\checkmark$
Pipeline construction	$\checkmark\checkmark$	//	$\checkmark\checkmark$	//	$\checkmark\checkmark$	$\checkmark\checkmark$	$\checkmark\checkmark$	$\checkmark\checkmark$
Landfills / civil engineering	$\checkmark\checkmark$	√ √	✓	0	$\checkmark\checkmark$	✓	0	•
Brushless blower	yes	yes	yes	yes	no	no	no	no
Remarks	1	1	1	1	2	2	2	3
Catalog page	20	21	22 / 23	24	25 / 26	25 / 26	27	18 / 19

^{✓✓} very suitable ✓ suitable ○ unsuitable 1: Air and Plast temperatures electronically controlled with integrated display.

^{3:} Warm air heated extruder, air temperature electronically controlled with integrated display.



^{2:} Hot air heated extruder temperature controlled manually.



Ingeniously simple - FUSION 1

Your satisfaction is our goal. Which is why we are developing welding devices to meet your requests and requirements. And with the usual LEISTER quality, of course. The reduced design of the FUSION 1 offers increased maneuverability when welding. Flexibility guarantees an optimally mountable handle. Ingeniously simple extrusion welding – FUSION 1.





FUSION 1 – More flexibility during welding thanks to its slim design

Digitally regulated extrusion welder

FUSION 1



- Controlled: Automatically controlled air temperature
- Suspension device: Effortlessly weld longer by hanging up the device
- Compact and slimline: Thanks to integrated air guide

Technical data		
Voltage	V~	230
Power	W	1200
Materials		PE, PP
Welding rod \varnothing	mm	3 – 4
Output Ø 3 HD-PE	kg/h	0.2 - 0.5
Output Ø 4 HD-PE	kg/h	0.3 - 0.8
Size $(L \times B \times H)$	mm	$435 \times 92 \times 133$ (236 with handle)
Weight	kg	3.4
Conformity marking		C€
Protection class II		

Article No.:

162.799	FUSION 1, 120 V / 1450 W, US plug
162.800	FUSION 1, 230 V / 1200 W, EU plug
163.165	FUSION 1, 230 V / 1200 W, CEE 3/16
163.163	FUSION 1, 230 V / 1200 W, CH plug
163.164	FUSION 1, 230 V / 1200 W, AU plug
166.367	FUSION 1, 220 V / 1100 W, KR plug

Included with purchase: FUSION 1, case, welding shoe, Allen key, instruction manual, handle

Accessories FUSION 1



General accessories





WELDPLAST S6: Powerful hand extruder.

The powerful WELDPLAST 600 hand extruder is Leister's most powerful extruder. Thanks to its high output rate, it's a convincing choice for welding large tanks and containers.



The WELDPLAST S6 is guided easily with the practical control wheel grip

Digitally regulated extrusion welder

WELDPLAST 600



- 6 kg output per hour
- · Highest possible preheating capacity
- Adjustable control wheel
- Maintenance-free hot-air blower
- Multifunctional display

Technical Data		
Voltage	V~	230
Power	W	3680
Material		PE / PP
Welding rod	mm	Ø 4 or Ø 5
Output	kg/h	3.9-6.0
Size (L \times W \times H)	mm	809 × 140 × 273
Weight	kg	12.2
Conformity mark		C€
Protection class I		(1)

Article No.:

170.461 WELDPLAST 600, 230 V/3680 W, industrial plug

Included with purchase: WELDPLAST 600, overlap welding shoe, storage case $\,$

Accessories WELDPLAST 600



General accessories



WELDPLAST S4: The workmate.

The WELDPLAST S4 is the first extruder of its kind with a brushless, maintenance-free motor for generating preheated air. Output of up to four kilograms per hour is made possible thanks to the S4's powerful drive system.



The powerful WELDPLAST S4 in use

Digitally regulated extrusion welder

WELDPLAST S4



- Compact housing design reduces noise and guarantees optimal cooling for the electronics and drive.
- Microprocessor regulates the welding process and monitors the tool
- Menu with function programs
- Dual-sided, twist-free wire intake
- Maintenance-free blower

Technical Data		
Voltage	V~	230
Power	W	3680
Material		PE / PP
Welding rod	mm	\varnothing 3 – 4 / \varnothing 4 – 5 mm
Output	kg/h	1.5 – 4.0
Size (L \times W \times H)	mm	560 × 110 × 300
Weight	kg	8.7
Conformity mark		C€
Protection class I		

Article No.:

116.948 WELDPLAST S4, 230 V / 3680 W, 3-4 mm, Euro plug, blank welding shoe

146.813 WELDPLAST S4, 230 V / 3680 W, 4 – 5 mm, Euro plug, welding shoe K 15

Included with purchase: WELDPLAST S4, preheat nozzle large, medium and small, storage case

Accessories WELDPLAST S4



General accessories





WELDPLAST S2 / S2 PVC: The masterpieces.

WELDPLAST S2 and S2 PVC are masterpieces of modern technology. While externally they fulfill the highest requirements of functionality and design, their interior satisfies the highest expectations concerning the material to be processed. The WELSDPLAST S2 PVC has integrated corrosion protection and has been especially designed to satisfy the high requirements of PVC extrusion welding. Their perfect seam quality makes both – WELDPLAST S2 and S2 PVC – reliable partners for today and tomorrow.

Digitally regulated extrusion welder

WELDPLAST S2



- Maintenance-free blower
- · Perfect weld seam quality
- Multifunctional display
- Ergonomic and handy
- Successfully operated worldwide

Technical Data		
Voltage	V~	230
Power	W	3000
Material		PE / PP
iviateriai		Other materials on request
Welding rod	mm	Ø 3 oder Ø 4
Output Ø 3 mm	kg/h	PE: 0.6 – 1.3 PP: 0.5 – 1.2
Output Ø 4 mm	kg/h	PE: 1.0 – 2.0 PP: 0.9 – 2.0
Size $(L \times W \times H)$	mm	$450\times98\times260$
Weight	kg	5.8
Conformity mark		C€
Protection class I		(1)

Article No.:

127.215	WELDPLAST S2, 230 V / 3000 W, EU plug
140.707	WELDPLAST S2, 230 V / 3000 W, CN plug
146.341	WELDPLAST S2, 200 V / 2400 W, w/o plug
156.131	WELDPLAST S2, 230 V / 3000 W, CEE 3/16
176.839	WELDPLAST S2, 230 V / 3000 W, CH plug

Included with purchase: storage case

Digitally regulated extrusion welder

WELDPLAST S2 PVC



- Optimized for PVC-U
- · Perfect weld seam quality
- PVC specific extrusion menu
- Corrosion protection
- Standby mode

Voltage V~ 230 Power W 3000 Material PVC-U, PE, PP Other materials on request Other materials on request	Technical Data		
Material PVC-U, PE, PP	Voltage	V~	230
Material	Power	W	3000
Other materials on request	Material		PVC-U, PE, PP
other materials on request	iviaterial		Other materials on request
Welding rod mm \varnothing 3 oder \varnothing 4	Welding rod	mm	Ø 3 oder Ø 4
Output \varnothing 3 mm kg/h PVC-U: $0.9 - 1.7$ PE: $0.6 - 1.3$	Output Ø 3 mm	kg/h	PVC-U: 0.9 – 1.7 PE: 0.6 – 1.3
Output \varnothing 4 mm kg/h PVC-U: 1.5 $-$ 2.7 PE: 1.0 $-$ 2.3	Output ∅ 4 mm	kg/h	PVC-U: 1.5 – 2.7 PE: 1.0 – 2.3
Size (L \times W \times H) mm $450 \times 98 \times 260$	Size $(L \times W \times H)$	mm	$450\times98\times260$
Weight kg 5.8	Weight	kg	5.8
Conformity mark C €	Conformity mark		C€
Protection class I	Protection class I		(1)

Article No.:

 135.724
 WELDPLAST S2 PVC, 230 V / 3000 W, EU plug

 140.708
 WELDPLAST S2 PVC, 230 V / 3000 W, CN plug

 146.342
 WELDPLAST S2 PVC, 200 V / 2400 W, w/o plug

 156.804
 WELDPLAST S2 PVC, 230 V / 3000 W, CEE 3/16

 169.929
 WELDPLAST S2 PVC, 220 V / 2750 W, KR plug

Included with purchase: storage case

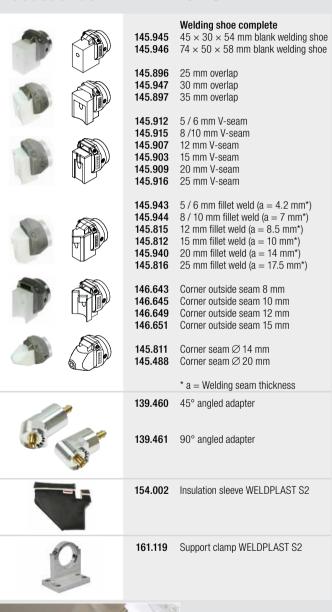


The handy WELDPLAST S2 in action



Even inside radiuses are easy to weld

Accessories WELDPLAST S2



Accessories WELDPLAST S2 PVC





With the WELDPLAST S2 perfect welds are possible



The 45° angled adapter for the WELDPLAST S2 facilitates welding in difficult positions. (accessory)

General accessories







WELDPLAST S1: Outstandingly compact.

With the new WELDPLAST S1 compact extruder, you can achieve perfect seam quality.



Nozzle welding made easy with the WELDPLAST S1

Digitally regulated extrusion welder

WELDPLAST S1



- Functional, ergonomic design with comfort grip areas
- Extremely high output power of 0.8 kg/h (HD-PE)
- Integrated LED lighting and hanging point
- Can work with all typical kinds of plastic
- Multifunction panel with predefined welding parameters
- BL blower, adjustable air volume

Technical Data		
Voltage	V~	230 / 120 / 100
Power	W	1600 / 1800 / 1500
Material		HD-PE, LD-PE, PP, PVC-U PVC-C, PVDF, ECTFE, PA
Welding rod	mm	Ø 3 – 4
Output	kg/h	0.2 – 0.8 (PVC up to 1.15 kg/h)
Size (L \times W \times H)	mm	435 × 91 × 264
Integrated welding profiles		HD-PE, PP, PVC-U,PVC-C, PVDF 10 free profile storage spaces
Weight	kg	4.7
Conformity mark		C€
Protection class I		

Article No.:

Alticic No	
148.396 WELDPLAST S1, 230 V / 1600 W, \varnothing 3 – 4	mm, EU plug
148.395 WELDPLAST S1, 120 V / 1800 W, Ø 3 – 4 r	nm, w/o plug
148.394 WELDPLAST S1, 100 V / 1500 W, \varnothing 3 – 4 i	mm, EU plug
156.140 WELDPLAST S1, 230 V / 1600 W, UK plug	
169.928 WELDPLAST S1, 220 V / 1500 W, KR plug	
177.272 WELDPLAST S1, 230 V / 1600 W, CEE 3/16	
Included with purchase: WELDPLAST S1, 4 pre-heating	nozzles

 \varnothing 14 mm, welding shoe K10, storage case

Accessories WELDPLAST S1

	149.430	Welding shoe complete Blank
	149.402 148.627 149.401	Fillet weld 5/6 Fillet weld 8/10 Fillet weld 12
	149.388 149.383 149.385	V-seam 3 / 4 V-seam 5 / 6 V-seam 8 / 10
	149.364	Corner For additional welding shoes, see Weldplast S2 PVC
8	152.720	Nozzle extension
	153.143	Angled adapter 45°
	153.236	Angled adapter 90°
	149.600	Top hot-air guide
	149.456	Hot-air tube, position 6h \varnothing 14 mm
	149.467	Hot-air tube, position 9h/3h \varnothing 14 mm (standard)
	154.107	Air nozzle set Ø 14 mm (standard)
	154.002	Insulation sleeve WELDPLAST S1/S2

General accessories



FUSION 3: Long and slim.

With its long and narrow shape, the FUSION 3 enables comfortable work, even on the floor.

FUSION 3C: Short and handy.

The somewhat shorter FUSION 3C provides an astounding output volume of up to 3.6 kilograms per hour.

Air heated extrusion welder

FUSION 3



- High-quality welding performance
- Compact and handy
- Motor start-up protection prevents cold start
- Simple operation
- Dual-sided twist-free wire intake
- 360° rotating welding shoe

Technical Data					
		Version Ø 3 − 4		Version \emptyset 4 – 5	
Welding rod \varnothing	mm	3 4 4 5			5
Output PE	kg/h	2.0 - 2.5 2.7 - 3.6 2.1 - 2.6 2.7 -			2.7 - 3.6
Output PP	kg/h	1.8 - 2.3	2.5 - 3.4	1.8 - 2.4	2.5 - 3.4
Voltage	V~	230			
Power	W	3500			
Material		PE / PP			
Size $(L \times W \times H)$	mm	670 × 90 × 180			
Weight	kg	7.2			
Conformity mark		C€			
Protection class II					

Article No.:

118.300	FUSION 3, 230 V / 3500 W, Ø 3 − 4 mm, EU plug
144.615	FUSION 3, 230 V / 3500 W, \varnothing 4 – 5 mm, EU plug
140.020	FUSION 3, 230 V / 3500 W, \varnothing 3 – 4 mm, CEE 3/16
143.835	FUSION 3. 230 V / 3500 W. Ø 4 – 5 mm. CEE 3/16

Included with purchase: FUSION 3, storage case

Air heated extrusion welder

FUSION 3C



- High-quality welding performance
- Compact and handy
- Motor start-up protection prevents cold start
- Simple operation
- Dual-sided, twist-free wire intake
- 360° rotating welding shoe

Technical Data					
		Version	Version \emptyset 3 – 4		Ø4-5
Welding rod \varnothing	mm	3 4 4 5			5
Output PE	kg/h	2.0 - 2.5 2.7 - 3.6 2.1 - 2.6 2.7 -			2.7 - 3.6
Output PP	kg/h	1.8 - 2.3 2.5 - 3.4 1.8 - 2.4 2.5 - 3			2.5 - 3.4
Voltage	V~	230			
Power	W	3200			
Material		PE / PP			
Size $(L \times W \times H)$	mm	588 x 98	x 225		
Weight	kg	6.9			
Conformity mark		C€			
Protection class II					

Article No.:

123.866	FUSION 3C, 230 V / 3200 W, \varnothing 3 – 4 mm, EU plug			
144.826	FUSION 3C, 230 V / 3200 W, \varnothing 4 – 5 mm, EU plug			
173.794	FUSION 3C, 230 V / 3200 W, \varnothing 3 – 4 mm, without shoe, industrial plug			
140.028	FUSION 3C, 230 V / 3200 W, Ø 3−4 mm, CEE 3/16			
143.837	FUSION 3C, 230 V / 3200 W, \varnothing 4–5 mm, CEE 3/16			
166.365	FUSION 3C, 220 V / 3000 W, \varnothing 3 -4 mm, KR plug			
176.838	FUSION 3C, 230 V / 3200 W, \varnothing 3 -4 mm, CH plug			
Included with purchase: FUSION 3C, storage case				





Perfectly stored in the case



FUSION 3C during the welding of a fillet weld

Accessories FUSION 3 / 3C



The insulation sleeve protects the machine from heat loss, as well as protects the operator from direct contact with the extruder.



* a = Welding seam thickness

General accessories

≥ 30 📳

FUSION 2: The small powerhouse.

The FUSION 2 convinces with its ergonomic design. The simple operation and first-class welding quality have helped it to become the breakthrough product.



In operation during container construction in China

Air heated extrusion welder

FUSION 2



- At 450 mm, it is the shortest in its performance class!
- Motor start-up protection prevents cold start
- Simple operation
- Dual-sided, twist-free wire intake
- 360° rotating welding shoe
- Integrated electronics for stepless adjustment of the preheating temperature and output quantity

Technical Data		
Voltage	V~	230 / 120
Power	W	2800
Material		PE / PP
Air temperature	°C	up to 340
Plastification temperature	°C	up to 300
Welding rod	mm	Ø 4
Output PE	kg/h	1.3 – 1.8
Size $(L \times W \times H)$	mm	$450\times98\times225$
Weight	kg	5.9
Conformity mark		C€
Protection class II		
Size (L × W × H) Weight Conformity mark	mm	450 × 98 × 225 5.9 C €

Article No.:

119.200	FUSION 2, 230 V / 2800 W, EU plug
150.102	FUSION 2, 120 V / 2800 W, CEE 3/16
139.197	FUSION 2, 230 V / 2800 W, CEE 3/16
166.366	FUSION 2, 220 V / 2600 W, KR plug
176.837	FUSION 2, 230 V / 2800 W. CH plug

Included with purchase: FUSION 2, blank welding shoe, storage case

Accessories FUSION 2



General accessories





Automated, modular, customized - WELDPLAST 200-i / 610-i

LEISTER offers you two modules for automated extrusion welding and 3D printing. WELDPLAST 200-i and 610-i are set up to allow both simple and fully automated expansion and can be mounted on robots or integrated into machines. This modular design allows you to bring your projects to fruition without making any compromises.

Built-in extruder module

WELDPLAST 200-i / 610-i



Customized

Depending on requirements – choose between extruder modules which can be extended to meet specific needs



Modular

Select an extruder module and simply add the relevant hot air and communication components



Controlled

Monitor and control all parameters such as temperatures and emissions

The drive and communication components of both extruder modules, which can be freely chosen by the user, can be tailored fully to meet individual needs. By incorporating additional sensors, the process can be controlled and monitored as required.

Electrical and mechanical adaptation points are already set up so that the modules for various processes such as those requiring preheated air can be integrated.

State-of-the-art industrial interfaces or similar interfaces can be installed to aid communication.





WELDPLAST 200-i / 610-i – robotic extrusion welding and 3D printing designed for automated continuous operation

Built-in extruder module

WELDPLAST 200-i / 610-i



- Automated: Designed for automated continuous operation
- **Up to date:** All components are compliant with current industry standards

Technical data		WELDPLAST 200-i	WELDPLAST 610-i
Voltage	V~	230	230
Heating power	W	600	1600
Welding additive	mm	3 – 4	4 – 5
Material output ø 3 mm	kg/h	0.1-1.4	
Material output ø 4 mm	kg/h	0.1-2.0	0.1-4.0
Material output ø 5 mm	kg/h		0.1-8.4
Welding materials		HDPE, LDPE, LLDPE, PVC-U, ABS, PVC-C, PU, PC, PS	HDPE, LDPE, LLDPE, PP
Dimensions full disassembly $(L \times W \times H)$	mm	660 × 191 × 220	876 × 191 × 210
Protection class I			
Included with purchase: Extrusion module, CAD data, parts list, operating manual, suggested electrical diagram			

WELDPLAST 200-i

O La	163.322	WELDPLAST 200-i, 230V
	163.575	Connection kit 200-i/610-i
A 600.	164.414	Air heater kit 200-i
	139.869 140.455 140.459	LHS 21S CLASSIC, 230V/1kW LHS 21S PREMIUM, 230V/1kW LHS 21S SYSTEM, 230V/1kW

WELDPLAST 610-i

54.5	172.580	WELDPLAST 610-i, 230V
	163.575	Connection kit 200-i/610-i
	164.415	Air heater kit 610-i
	139.872 140.457 140.461	LHS 21L CLASSIC, 230V/3.3kW LHS 21L PREMIUM, 230V/3.3kW LHS 21L SYSTEM, 230V/3.3kW





Check the weld seam dimension easily

General accessories hand extruder

	131.451	Tool rest WELDPLAST S2 / S2 PVC / FUSION 2 FUSION 3C
V	148.923	WELDPLAST S1
	160.454	WELDPLAST S4 / WELDPLAST S6 / FUSION 3
	136.231	Pre-heat reflector WELDPLAST S1/S2 / S2 PVC / S4 / S6 FUSION 2 / 3 / 3C
	134.361	Air filter WELDPLAST S1 / S2 / S2 PVC (included with purchase)
V., 00	143.776	Textile dust filter WELDPLAST S1 / S2 PVC (in combination with Air filter) (not included with purchase)
Se spring	135.082	Air filter FUSION 2 / 3C
	155.829	Air filter WELDPLAST S2
	153.009	Corner Press Tool
TUSTO .	152.676	Welding Gauge
	154.259	Scraper blade
	154.026	Contour scraper
13.30	136.961	Temperature measuring device G1200
90	136.962	Insertion probe type K, \varnothing 3 × 100 mm
/ "7	136.963	Insertion probe type K, \varnothing 1.5 × 100 mm
STATUS .	142.570	Tool case $229 \times 199 \times 55$ suitable for article 136.961



Heating element

109.984 230 V / 2200 W, WELDPLAST S4 / S2 / S2 PVC

113.268 230 V / 1100 + 1100 W, FUSION 3 123.561 230 V / 1750 W, FUSION 2 / 3C 149.265 230 V / 1000 W, WELDPLAST S1 149.529 120 V / 1100 W, WELDPLAST S1 149.530 100 V / 1050 W, WELDPLAST S1 151.026 120 V / 1750 W, FUSION 2



144.095 Welding rod de-reeler



Storage case (included with purchase)
169.851 WELDPLAST 600
123.173 WELDPLAST 54 / FUSION 3
119.540 WELDPLAST S2 / S2 PVC / S1 / FUSION 2/ 3C

PLASTFIX lends the weld seam the necessary holding pressure.





TRIAC ST: Design meets experience

The new TRIAC ST from Leister is primarily used for welding and plastic fabrication. During its development, a deliberate choice was made to do without extra technical features. Instead it is distinguished by comfort, being reliable versatile, robust and user friendly, like its predecessor the TRIAC S. A prominent feature here is the two-component handle, which is not only attractive, but also gives the user perfect grip. The low weight of less than 1 kg/2.18 lbs ensures a perfect weight balance.



TRIAC AT: Robust and intelligent.

The TRIAC AT is an intelligent hot-air hand tool for welding and shrinking plastics that is suitable for on-site use. It is designed for the needs of even the most demanding professional. Every tool undergoes stringent quality checks prior to leaving the factory in Switzerland. This high-quality hot-air hand tool is equipped for all situations. Its universal areas of application are virtually unlimited. The TRIAC AT will continue to prove its merit in any weather condition and is just as effective outside as it is indoors – all during continuous operation.

Hot-air hand tool

TRIAC ST



- Suitable for the work site
- Functional design: two-component handle grip and optimum center of gravity ensure good ergonomics
- Quick clean air filters
- Automatic carbon stop and heating element protection provide automatic protective measures

Technical data		
Voltage	V~	120 / 230
Frequency	Hz	50 / 60
Power	W	1600 / 1600
Temperature	°C	40 – 700
Air volume (20°C)	I/min	240 (500 at max. temp)
Dynamic pressure	Pa	3000
Ø Nozzle holder	mm	31.5
Emission	dB(A)	67
Size (L $\times \varnothing$)	mm	338×90 , handle $\varnothing 56$
Weight	kg	<1 (without power cord)
Conformity mark		C€
Approval mark		\$ [©
Protection class II		
A		

Article No.:

141.308	TRIAC ST, 120 V / 1600 W for push-fit nozzles with UK-plug
141.309	TRIAC ST, 230 V / 1600 W for push-fit nozzles with UK-plug
141.311	TRIAC ST, 230 V / 1600 W for push-fit nozzles with CH plug
141.227	TRIAC ST, 230 V / 1600 W for push-fit nozzles with Euro plug
144.013	TRIAC ST, 230 V / 1600 W for screw-on nozzles with Euro plug
153.891	TRIAC ST, 220 V / 1600 W for push-fit nozzles with KR-plug

Hot-air hand tool

TRIAC AT



- Suitable for the work site
- Closed loop controlled temperature
- Open loop controlled air volume
- Intelligent «e-Drive» operating unit
- Ergonomic handling
- Modern design

Technical data				
Voltage	V~	120 / 230		
Frequency	Hz	50 / 60		
Power	W	1600 / 1600		
Temperature	°C	40 – 620		
Air volume (20°C)	I/min	160 - 240 (500 at max. temp)		
Dynamic pressure	Pa	1600 – 3000		
\varnothing Nozzle holder	mm	31.5		
Emission	dB(A)	67		
Size $(L \times \varnothing)$	mm	338×90 , handle $\varnothing 56$		
Weight	kg	1 (without power cord)		
Conformity mark C €				
Approval mark		3 (3)		
Protection class II				
Article No.:				
141.319 TRIAC AT, 120 V / 1600 W, with UK-plug				
141.320 TRIAC AT, 230 V / 1600 W, with UK-plug				
141.314 TRIAC AT, 230 V / 1600 W, with Euro-plug				
141.322 TRIAC AT. 230 V / 1	600 W. with	CH-plua		

142.737 TRIAC AT, 230 V / 1600 W for screw-on nozzles with Euro plug 148.005 TRIAC AT, 220 V / 1600 W, for push-fit nozzles with KR-plug









Draw welding with combination nozzle

Accessories TRIAC ST / TRIAC AT

•	100.303	\varnothing 5 mm, tubular nozzle, push-fit
	105.575	\emptyset 5 × 100 mm, tubular nozzle, push-fit
	106.982	\emptyset 5 × 150 mm, extension nozzle, push-fit
	105.576	tubular nozzle Ø 5 mm, 90° curved
	106.996	Tacking nozzle, push-fit on Ø 5 mm tubular nozzle
9 /	105.431	3 mm speed weld nozzle, with small air-slide, push-fit on ∅ 5 mm tubular nozzle
0	105.432	4 mm speed weld nozzle, with small air-slide, push-fit on Ø 5 mm tubular nozzle
	105.433	5 mm speed weld nozzle, with small air-slide, push-fit on ∅ 5 mm tubular nozzle
	107.139	4.5×12 mm speed weld nozzle for fillet weld, push-fit on \varnothing 5 mm tubular nozzle
C	107.137	8 mm speed weld nozzle for tape welding, push-fit on ∅ 5 mm tubular nozzle
A M		Speed weld nozzle, push-fit on Ø 5 mm tubular nozzle
B	106.992 106.993	5.7 mm, profie A 7 mm, profile B
B	106.989 106.990 106.991	Ø 3 mm Ø 4 mm Ø 5 mm
4	156.470	Speed weld nozzle bend \varnothing 5 mm, push-fit on \varnothing 5 mm tubular nozzle

	105.622	arnothing 5 mm, tubular nozzle, screw-on
	106.988	Tacking nozzle, screw-on
	126.552	arnothing 4 mm drawing nozzle, screw-on for fluor plastics
	113.666 113.399 113.876 113.874	Ø 3 mm drawing nozzle with tacking tip, screw-on Ø 4 mm drawing nozzle with tacking tip, screw-on Ø 3 mm drawing nozzle without tacking tip, screw-on Ø 4 mm drawing nozzle without tacking tip, screw-on
A B	113.670 113.877 106.986 106.987	Drawing nozzle triangular-shaped With tacking tip, screw-on 5.7 mm, profile A Without tacking tip, screw-on 5.7 mm, profile A Without tacking tip, screw-on 7 mm, profile B Without tacking tip 7 × 5.5 mm
	143.833	Nozzle adapter for screw-on nozzles
	143.332 156.092 144.134	Protection tube for screw-on nozzles (for TRIAC ST until april 2017) Protection tube for screw-on nozzles (for TRIAC ST from mai 2017) Protection tube for screw-on nozzles (for TRIAC AT)
Ties .	141.375	Connection adapter M14 for \varnothing 21 mm nozzle with plug
	142.717	Heating element for TRIAC ST / TRIAC AT, 230 V / 1550 W TRIAC ST / TRIAC AT, 120 V / 1550 W
	142.718	

HOT JET S: Small and powerful.

As the most compact hot-air hand tool from Leister, the HOT JET S' low weight of 600 grams (including cord and slim handle) ensures high-powered, fatigue-free welding.



Popular for repair work: HOT JET S

Hot-air hand tool

HOT JET S



- The smallest Leister hot-air hand tool
- Stepless, electronically controlled temperature
- Stepless, electronically controlled air flow
- Low noise
- Flexible, integrated tool stand

Technical data		
Voltage	V~	120 / 230
Frequency	Hz	50 / 60
Power	W	460 / 460
Temperature	°C	40 – 600
Air volume (20°C)	I/min	40 - 110 (200 at max. temp)
Pressure static	Pa	230 – 1600
\varnothing Nozzle holder	mm	21.3
Emission	dB(A)	59
Size $(L \times \varnothing)$	mm	235×70 , handle $\varnothing 40$
Weight	kg	0.4 (without power cord)
Conformity mark		C€
Approval mark		3 3
Protection class II		

Article No.:

100.648 HOT JET S, 230 V / 460 W, with Euro plug 100.862 HOT JET S, 120 V / 460 W, without plug 100.854 HOT JET S, 230 V / 460 W, with AUS plug

140.030 HOT JET S, 220V/ 460W for push-fit nozzles with KR-plug

Accessories HOT JET S

	107.144	Ø 5 mm tubular nozzle, push-fit
	106.996	Tacking nozzle, push-fit on Ø 5 mm tubular nozzle
2/	106.989	3 mm speed welding nozzle, push-fit on \varnothing 5 mm tubular nozzle
D	106.990	4 mm speed welding nozzle, push-fit on Ø 5 mm tubular nozzle
	106.991	5 mm speed welding nozzle, push-fit on ∅ 5 mm tubular nozzle
1	156.470	Speed weld nozzle bend \varnothing 5 mm, push-fit on \varnothing 5 mm tubular nozzle
11/10	106.992	5.7 mm, A profilee speed welding nozzle, push-fit
A B	106.993	7 mm, B profilee speed welding nozzle, push-fit
C	107.137	8 mm speed welding nozzle for tape welding, push-fit on Ø 5 mm tubular nozzle
	143.831	Nozzle adapter for screw-on nozzles
	100.818	230 V / 435 W heating element





PENWELD A illuminated plastic welding

The PENWELD A external-air welder is suitable for precise plastic welding in apparatus and tank construction. The work light integrated in the handle keeps the welding zone under control even in dark sections.

External air hand tool

PENWELD A



- Rotating connection for flexibility when working
- Specific hose characteristics for better usability
- Service friendly junction box
- Choice between application-optimized variations
- Constant welding thanks to precise temperature



Integrated LED work light

lechnical data		
Voltage	V~	120 V; 230
Frequency	Hz	50 / 60
Power	W	1000 – 1550
Temperature	°C	60 – 600
Temperature setting stepless		Yes
Display		Yes
Outdoor use		Yes
Nozzle connection (∅)		31.5 mm; M14
Size (L $\times \varnothing$)	mm	$254.0 - 282.0 \times 54$, handle $\varnothing 37$
Conformity mark		C€ EŘ
Protection class II		

Article No.:

AI LICIE INU	"
173.367	PENWELD 305-A, 230 V / 1000 W, 3 m, M14, EU plug
173.368	PENWELD 305-A, 120 V / 1000 W, 3 m, M14, US plug
173.369	PENWELD 305-A, 230 V / 1000 W, 3 m, M14, CH plug
173.370	PENWELD 305-A, 230 V / 1000 W, 8 m, M14, EU plug
173.371	PENWELD 305-A, 230 V / 1000 W, 8 m, M14, CH plug
173.376	PENWELD 500-A, 230 V / 1550 W, 3 m, EU plug
173.377	PENWELD 500-A, 120 V / 1550 W, 3 m, US plug
175.598	PENWELD 505-A, 230 V / 1550 W, 8 m, M14, EU plug
177.344	PENWELD 500-A, 230 V / 1550 W, 3 m, CN plug
177.346	PENWELD 505-A, 230 V / 1550 W, 8 m, M14, CN plug



Intuitively operable



Logically designed

The handy, robust PENWELD S external-air welder is intentionally simple in design to enable intuitive operation and withstand heavy loads. Different device variants cover individual needs.



External air hand tool

PENWELD S



- Robust and simple construction
- Short and light for longer working periods
- Recessed rotary knob against accidental adjustment
- High quality, sturdy hose

Technical data

Voltage	V~	120 V; 230
Frequency	Hz	50 / 60
Power	W	1000 – 1550
Temperature	°C	60 - 600
Temperature setting stepless		Yes
Display		No
Outdoor use		Yes
Nozzle connection (∅)		31.5 mm; M14
Size (L $\times \varnothing$)	mm	$254.0 - 275.0 \times 54$, handle $\varnothing 37$
Conformity mark		C€ EK
Protection class II		

Article No.:

173.372	PENWELD 305-S, 230 V / 1000 W, 3 m, M14, EU plug
173.373	PENWELD 305-S, 230 V / 1000 W, 3 m, M14, CH plug
173.374	PENWELD 305-S, 120 V / 1000 W, 3 m, M14, US plug
173.375	PENWELD 305-S, 230 V / 1000 W, 8 m, M14, EU plug
173.378	PENWELD 500-S, 230 V / 1550 W, 3 m, EU plug
173.379	PENWELD 500-S, 120 V / 1550 W, 3 m, US plug
177.345	PENWELD 500-S, 230 V / 1550 W, 3 m, CN plug

Accessories PENWELD S

	105.622	\varnothing 5 mm tubular nozzle, 15° screw-on
	106.988	Tacking nozzle, screw-on
	113.666 113.399	 Ø 3 mm round drawing nozzle with tacking tip, screw-on Ø 4 mm round drawing nozzle, with tacking tip, screw-on
D	113.876 113.874	 Ø 3 mm round drawing nozzle without tacking tip, screw-on Ø 4 mm round drawing nozzle, without tacking tip, screw-on
A B B	113.670 113.877 106.986 106.987	Triangular drawing nozzle with tacking tip, screw-on, 5.7 mm, profile A without tacking tip, screw-on 5.7 mm, profile A without tacking tip, screw-on 7 mm, profile B without tacking tip, screw-on 7 x 5.5 mm
11/18	126.552	$\ensuremath{{\varnothing}}$ 4 mm drawing nozzle, screw-on for fluor plastics
	127.726 127.727	Angular adapter for screw-on nozzles, screw-on 30° 45°
C	170.881	Tool stand PENWELD
	172.330 172.333	One-touch fitting G3/8" One-touch fitting G1/2"
	172.331	Coupler plug Ø 14 mm



AIRSTREAM 100: Mobile with strong air supply.

The mobile AIRSTREAM 100 blower supplies the right amount of air for Leister's DIODE, PENWELD and LABOR heat guns. A suitable adapter is included in the scope of delivery to easily connect the heat guns.



Air compressor for mobile use

Blower

AIRSTREAM 100



- Mobile
- Generates clean, filtered air
- Low maintenance and long service life
- Separate device switch to handle tool with ease
- Safely stored thanks to the tool rack

Accessories AIRSTREAM 100



172.330 One-touch fitting G3/8"



172.331 Coupler plug Ø 14 mm

Technical Data		
Voltage	V~	230
Power	W	72
Frequency	Hz	50
Air volume	L/min	80 (Total)
Emission	dB(A)	< 48
Size (L \times B \times H)	mm	440 × 228 × 227
Weight	kg	7.2
Conformity mark		C€
Protection class I		

Article-No.:

171.350 AIRSTREAM 100, 230 V / 72 W, CH-plug 171.351 AIRSTREAM 100, 230 V / 72 W, EU-plug



AIRSTREAM ST: The quiet and efficient air supply unit.

With its plug & play functionality, all you need to do is plug in the AIRSTREAM ST for a constant supply of clean, dry air – for welding constructions with the highest cleanliness requirements.



AIRSTREAM ST, the quiet air supply unit

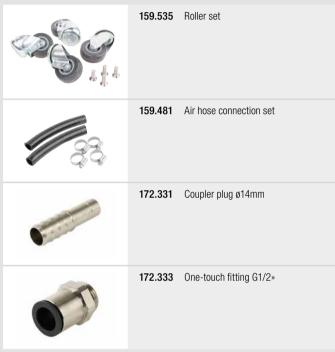
Blower

AIRSTREAM ST



- Quiet operating mode
- Cool-Down-Mode
- Low energy consumption
- Two hand tools can be connected
- Compatible mit PENWELD, DIODE and LABOR
- Flow meter
- Brushless technology

Accessories AIRSTREAM ST



Technical Data		
Voltage	V~	230
Power	W	215
Frequency	Hz	50
Air volume	L/min	200 (Total)
Emission	dB(A)	< 48
Size (L \times B \times H)	mm	$600 \times 250 \times 362$
Weight	kg	24
Conformity mark		C€
Protection class I		

Article-No.:

158.822 AIRSTREAM ST, 230 V / 215 W, EU-plug 161.052 AIRSTREAM ST, 230 V / 215 W, CH-plug



Easy parallel operation.



ROBUST: The powerhouse.

Versatile and operable at high ambient temperatures of up to 60 °C. Despite its small size, the ROBUST is a real powerhouse. This blower can simultaneously supply air for up to three hot-air hand tools.



ROBUST blower, serving as the external air supply

Blower

ROBUST



- High-performance, compact design
- Sound-suppression
- Can be integrated at any position
- Can be used as an external air supply up to max. 3 DIODE S or max. 3 LABOR S (with 107.281 hose adapter)

Technische Daten			
Frequency	Hz	50	60
Power	W	250	250
Air volume (20 °C)	I/min	1200	1300
Static pressure	kPa	8.0	10.5
Max. ambient temperature	°C	60	60
Max. air inlet temperature	°C	60	60
Noise emission level	dB(A)	62	62
Protection (IEC 60529)		IP 54	IP 54
Outside diameter air inlet	\varnothing mm	38	38
Outside diameter air outlet	\varnothing mm	38	38
Weight	kg	8.0	8.0
Conformity mark			
Protection class I			

Artikei-Nr.:				
Voltage V~	50 Hz	1 × 120	1 × 230	$3 \times 230 / 400$
	60 Hz			$3 \times 440 - 480$
Without cord	Article No.:	103.434		103.429
3 m cord / Euro plug	Article No.:		103.432	

Accessories ROBUST

	107.354	Stainless steel filter, push-fit on air intake
	107.281	Ø 38 mm hose connection adapter, 3 output each 14 mm
	113.859	Ø 14 mm air hose
0	101.031	arnothing 14 mm hose clip for air hose



External air hand tool

DIODE S



- Operated with MINOR or ROBUST blower or with compressed air
- Cooled heating element tube
- Suitable for field applications when used in combination with a MINOR blower

Hand tool and blower

DIODE S with MINOR



MINOR blower and DIODE S

• Ideal for assembly work

Technical data		
Voltage	V~	120 / 230
Power	W	1600
Temperature	°C	20 - 600
Size (L $\times \varnothing$)	mm	265×57 , handle $\varnothing 40$
Weight	kg	1.15 kg (with 3 m cord / 3 m air hose)
Conformity mark		C€
Protection class II		

Article No.:

101.279	DIODE S, 230 V / 2000 W, EU plug
101.280	DIODE S, 230 V / 2000 W, M14, EU plug
101.281	DIODE S, 230 V / 1600 W, EU plug
101.282	DIODE S, 230 V / 1600 W, M14, EU plug
101.291	DIODE S, 120 V / 1600 W, US plug
101.292	DIODE S, 120 V / 1600 W, M14, US plug
101.293	DIODE S, 120 V / 1600 W, CEE 3/16
177.270	DIODE S, 230 V / 1600 W, M14, CN plug
Additional	versions available upon request

Technical data		
Voltage	V~	120 / 230
Power	W	1600
Temperature	°C	20 – 600
Size (L $\times \varnothing$)	mm	265×57 , handle $\varnothing 40$
Weight	kg	2.5 kg (with 3 m cord / 1.5 m air hose)
Conformity mark		C€
Protection class II		

Article No.:

101.441	DIODE S / MINOR, 230 V / 1700 W, 1.5 m, EU plug
101.447	DIODE S / MINOR, 120 V / 1700 W, US plug
101.449	DIODE S / MINOR, 100 V / 1500 W, JP plug
108.870	DIODE S / MINOR, 230 V / 1700 W, 1.5 m, M14, EU plug
136.241	DIODE S / MINOR, 230 V / 1700 W, CN plug

Additional versions available upon request





The MINOR blower as an air suppy for the DIODE S

MINOR: The mobile air supplier.

Don't be deceived by the MINOR's small size and low weight. This blower delivers sufficient air to enable quality work with the DIODE S or LABOR S.

Accessories DIODE S

With push-fit nozzle

With push in hozzic		
	100.303	\varnothing 5 mm tubular nozzle, for versions with nozzles, push-fit
A B	106.992 106.993 106.989 106.990 106.991 156.470	Speed welding nozzle, push-fit on Ø 5 mm tubular nozzle 5.7 mm, profilee A 7 mm, profilee B 3 mm 4 mm 5 mm 5 mm bent
	106.996	Tacking nozzle, push-fit on \varnothing 5 mm tubular nozzle
	143.833	Nozzle adapter for screw-on nozzles
	100.689 100.702	Heating element DIODE S, 230 V / 1550 W Heating element DIODE S, 120 V / 1600 W
Vith screw-on nozzle		
	105.622	\varnothing 5 mm tubular nozzle, screw-on
	106.988	Tacking nozzle, screw-on
D O	113.666 113.399 113.876 113.874	Ø 3 mm round drawing nozzle with tacking tip, screw-on Ø 4 mm round drawing nozzle, with tacking tip, screw-on Ø 3 mm round drawing nozzle without tacking tip, screw-on Ø 4 mm round drawing nozzle, without tacking tip, screw-on
A ® B	113.670 113.877 106.986 106.987	Triangular drawing nozzle, with tacking tip, screw-on, 5.7 mm Without tacking tip, screw-on 5.7 mm, profile A Without tacking tip, screw-on 7 mm, profile B 7×5.5 mm
4	126.552	4 mm drawing nozzle, screw-on, for fluor plastics
(T)	141.375	Connection adapter M14 for

Blower

MINOR



- Lightweight and compact
- Powerful
- Serves as a mobile air supply for the DIODE S and LABOR S
- Suitable for work on construction sites

Technical data		
Voltage	V~	230
Power	W	100
Air volume (20°C)	I/min	400
Pressure static	Pa	4000 (40 mbar)
Air outlet (external)	mm	14.5
Size $(L \times \emptyset)$	mm	250×95 , handle \varnothing 64
Weight	kg	1.15 (with 3 m cord)
Conformity mark		C€
Protection class II		

Article No.:

108.747 MINOR, 230 V / 100 W, with Euro plug 109.988 MINOR, 120V / 100W, with UK plug

Additional versions available upon request

42 leister.com

Ø 21.3 mm nozzle with plug

LABOR S: Small and handy.

Developed for laboratory use but also eminently suitable for small welding tasks where access is difficult.



LABOR S, used in combination with MINOR as an external air supply

External Air Hand tool

LABOR S



- Temperature adjustment via rotary knob
- Very small and handy device
- Ideal for draw welding and tacking
- Air supply with ROBUST blower, MINOR (p. 27) or with compressed air
- Ideal for mobile use when coupled with MINOR blower

Technical data		
Voltage	V~	230
Power	W	800 / 900
Temperature	°C	20 - 600
Size (L $\times \varnothing$)	mm	180, handle Ø 32
Weight	kg	0.15 (without air hose and without cordl)
Conformity mark		C€
Approval mark		
Protection class II		

Article No.:

101.716 LABOR S with connection box, 230 V / 800 W

with Euro plug, air hose 3 m

101.754 LABOR with MINOR blower, 230 V / 900 W

with Euro plug, air hose 1.5 m

Additional versions available upon request

Accessories LABOR S

	107.144	arnothing 5 mm tubular nozzle, push-fit
A B	106.992 106.993 106.989 106.990 106.991 156.470	Speed weld nozzle, push-fit on ∅ 5 mm tubular nozzle 5.7 mm, profilee A 7 mm, profilee B 3 mm 4 mm 5 mm 5mm bent
-	106.996	Tacking nozzle, push-fit on Ø 5 mm tubular nozzle
	143.831	Nozzle adapter for screw-on nozzles
-	107.146	\varnothing 2 mm soldering nozzle
	107.151	\varnothing 4 mm soldering nozzle
	107.148	\varnothing 3 × 1.5 mm soldering nozzle, oval
	105.622	\varnothing 5 mm tubular nozzle, screw-on
	106.988	Tacking nozzle, screw-on
	113.666 113.399 113.876	 Ø 3 mm round drawing nozzle with tacking tip, screw-on Ø 4 mm round drawing nozzle, with tacking tip, screw-on Ø 3 mm round drawing nozzle without tacking tip, screw-on
D	113.874	Ø 4 mm round drawing nozzle, without tacking tip, screw-on
A	113.670	Triangular drawing nozzle, with tacking tip, screw-on, 5.7 mm
A B	113.877	Without tacking tip, screw-on 5.7 mm, profile A
	106.986	Without tacking tip, screw-on 7 mm, profile B
	106.987	7 × 5.5 mm
	126.552	4 mm drawing nozzle, screw-on, for fluor plastics
	101.581	230 V / 800 W heating element





Remove the oxide layer from the welding rod



With the contour scraper, perfect weld seam pre- and post-processing is achieved

Hot-air hand tools

General accessories

General accesso	ries				
0	106.976	28 mm pressure roller (PTFE)		137.855 138.902 138.539	Leister cutter with four spare blades Hooked blade for LEISTER-cutter (10 dispenser with 10 pcs=100 pcs) Straight-edge blade for LEISTER-cutter (10 dispenser with 10 pcs = 100 pcs)
	106.972	Brass pressure roller with ball bearings		151.382 153.009	Kehlfix Plastfix
CUSTO C	152.676	Weld seam template		160.353	Cable cord roller 25 m, with 1 × CEE 400V and 2 × EU socket 230V Cable cord roller 25 m, with 1 × CEE
20	157.544	Leister Universal scissors 260 mm with special shaft grinding		161.152 161.207	400 V and 2 × T23 CH socket 230 V Cable cord roller 25 m, with 1 × CEE 400 V and 2 × Typ E with ground pin socket 230 V
	154.259	Scraper blade		164.048	Cable cord roller 45 m, 4 × 230 V, EU socket Cable extension cord 15 m PUR 5 x 2.5 mm2, with CEE 400V plug
St. James	154.026	Contour scraper		159.239	Cable extension cord 15 m PUR 3 x 2.5 mm2, with EU plug 230V
	106.997	Ø 6 mm rotary burr for drilling machine, for car repairs		136.961	Temperature measuring device G1200
	116.798	Brass brush		136.962	Insertion probe type K, Ø 3 × 100 mm
and the state of t	142.647	Brass brush Ø 3 mm	9	136.963	Insertion probe type K, Ø 1.5 × 100 mm
	107.348	Tool rest for TRIAC AT, TRIAC ST, LABOR S	TITUE .	142.570	Tool case $229 \times 199 \times 55$ suitable for article 136.961

More at the new accessories catalog at leister.com/accessories



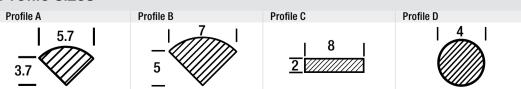


Welding rods

Welding accessories PE 104.283 HDPE welding rod A 3 104.294 HDPE welding rod A 3 104.284 HDPE welding rod B 5 104.299 HDPE welding rod B 5 106.650 HDPE welding band C 1 104.300 LDPE welding rod D 3 161.612 HDPE welding rod D 2 116.918 HDPE welding rod D 2 2 Welding accessories PP 104.287 PP welding rod A 3 106.642 PPs welding rod, flame resistant A 3 104.288 PP welding rod B 5 126.356 PP welding band C 2 161.611 PP welding rod D 2 Welding accessories PVC 104.296 PVC-U welding rod A 3 106.641 PVC-U welding rod A 3 106.641 PVC-U welding rod A 3	3 3 5 1				
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106.641 PVC-U welding rod △ △ △ △ △ △	3				
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104.280 PVC-U welding rod B	5				
104.279 PVC-U welding rod B	5				
109.925 PVC-U welding rod □ □ 4	1				
104.302 PVC-P welding rod (soft) A	3				
Welding accessories ABS					
104.295 ABS welding rod	3				
113.587 ABS welding rod	,				
107.027 ABS welding band c □ 1	3				

Article		Profile	Colour		
Welding a	ccessories div.	Pro	පි	ş	
104.297	PA welding rod	A⋘		3	
104.313	PC welding rod / ABS / ALPHA (Honda)	A⋘		3	
104.308	PUR welding rod	A⋘		3	
106.654	Xenoy welding band	C ===		2	
104.304	PVDF welding rod	A⋘		3	
104.303	POM welding rod	A⋘		3	
112.185	PC/PBTX Xenoy welding rod	A⋘		3	
Test bund	les				
107.036	Test bundle bodywork welding rods, each consistir profile A pieces of 37 cm single marked 6× HDPE, 6× PP, 6× PA, 6× ABS, 6× PCABS / AF 6× PC / PBTP / Xenoy	•	onda,		
107.037	Test bundles standard each consisting of profile A pieces of 37 cm single marked 5× PVC-U, 5× PVC-P, 5× PP, 5× ABS, 5× HDPE, 3× PC, 3× PA, 3× POM, 3× LDPE, 3× PC / ABS / ALPHA Honda / PBTP / Xenoy				
Test bundle welding band each consisting of profile C pieces of 37 cm single marked 9× HDPE, 8× 2 mm white, 9× PP, 8× 2 mm natural, 9× ABS, 8× 2 mm white / PBTP / Xenoy grey					

Profile sizes



Dimensions in mm



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