



***ELECTRICAL FITTINGS WELDER  
SVEL - 950***

Operating Instructions / Warranty Card

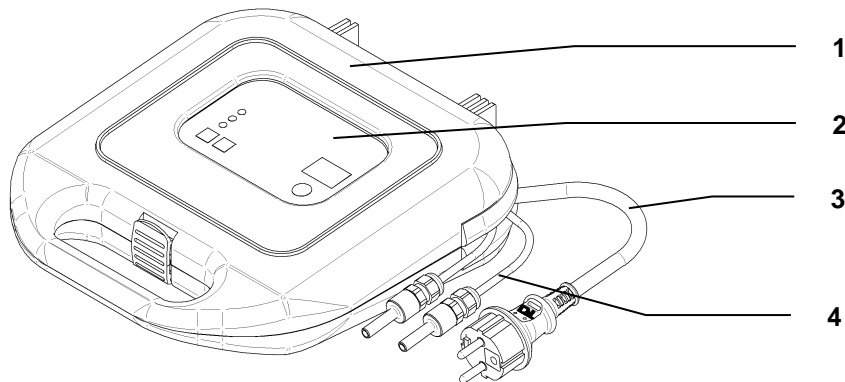
# 1. Introduction

Dear customer

The equipment you have just purchased was manufactured by DYTRON EUROPE s.r.o., the largest manufacturer of plastic welding equipment in the Czech Republic. We believe you will be satisfied with the quality and reliability of the product.

Before operating the equipment for the first time, please read these Operating Instructions carefully. They provide important information on the safe and correct operation and maintenance of your electrical fittings welder.

## 2. Equipment Description



The electrical fittings welder is an electrical device for welding electrical fittings using a precisely defined technological procedure.

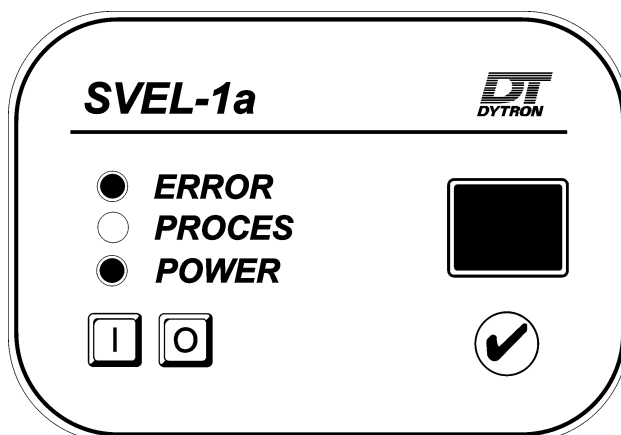
The welder comes in a plastic case (1) which includes a power supply cable (3) and cables with terminals (4) that can be attached to the electrical fitting to be welded. The equipment is controlled by push buttons and a display on the panel (2).

The welder is for welding polypropylene electrical fittings not identified by a bar code. The diameters of the electrical fittings can range from 20 mm to 315 mm. The amount of energy used for welding is set automatically and the operator cannot adjust it.

**This welder must not be used for welding electrical fittings made of other materials, those intended for the installation of gas piping or those identified with a bar code!!!**

## 3. Operation of the Equipment

### 3.1 Control panel



The following control and indication elements are located on the control panel:

- **Push button "I"** switches the welder over from the standby to the active mode.
- **Push button "O"** switches the welder over from the active to the standby mode.
- **Push button "✓"** switches on the welding process.

**Reminder:** All control elements are protected against unintentional switching on by a response time delay. Therefore the push button must be pressed for approximately 1 second.

- **Green indication diode** (POWER) signals that the welder is connected to the mains.
- **Yellow indication diode** (PROCESS) signals the welding process.
- **Red indication diode** (ERROR) notifies errors occurring before or during the welding process.
- **Display** - indicates the welding process.

### 3.2 Connection to the Mains

After the power cord has been plugged into the mains socket, the display lights up for a fraction of a second and the green LED (POWER) remains lit. The electrical fittings welder is in standby mode. Electrical fittings can be connected to the welder in this mode.

### 3.3 Working Procedure for Welding

THIS BRIEF DESCRIPTION FOR OPERATING THE EQUIPMENT IS NOT UNDER ANY CIRCUMSTANCES MEANT TO REPLACE THE REQUIRED WELDER'S TRAINING COURSE. IT DOES NOT INCLUDE ANY TECHNOLOGICAL PROCEDURES RECOMMENDED BY THE MANUFACTURERS OF PIPES AND ELECTRICAL FITTINGS.

#### Procedure:

- Put the welder into the standby mode (refer to Chap. 3.2);
- Connect the electrical fitting to the welder;
- Press the "I" button. The welder will switch over to the active mode and the display will show "00". At this moment the welder is ready for operation;
- Start the welding process by pressing the "√" button. The course of the welding process is indicated by the yellow LED (PROCESS). The display shows the time of welding as a percentage. The range is 00 – 99, i.e. 100 numbers (%);
- After the time required for welding elapses, "99" will remain on the display and the yellow LED (PROCESS) will go off. This indicates the end of the welding process.

**Reminder:** The welding process can be stopped at any time by pressing the "0" push button. An interruption is indicated as an error - refer to Chap. 4.

**Tip:** Before welding the next electrical fitting, the welder should be switched over to the standby mode by pressing the "0" push button and the whole cycle repeated.

When welding more complicated distribution systems in one place, special cables can be used and several electrical fittings can be welded simultaneously. The following table shows the possibilities of welding more than one electrical fittings.

Electrical fitting size (mm)	Maximum number of electrical fittings welded simultaneously
20	10
25	10
32	8
40	6
50	5
63	3
75	2

**Reminder:** If the welding process is interrupted, the welding the same electrical fitting must not be repeated!!!

## 4. Error Messages and the Elimination of Less Complicated Defects

The SVEL-1a welder has automatic defect diagnostics. If a defect occurs, the red LED (ERROR) lights up.

The following table gives a list of defects (error messages) along with the actions that should be undertaken to eliminate them.

Defect type	Description	Action
E1 (Error 1)	No electrical fitting is connected after starting the welding process	Check the connection of the contacts of the electrical fitting and the supply cables (disrupted cable, terminal torn off, etc.). Press the "0" push button for approx. 1 second to switch the welder over to the standby mode and repeat the whole cycle. If the system keeps displaying E1, replace the electrical fitting. If this is unsuccessful, contact your service centre.
E2 (Error 2)	There is a short-circuit in the connected electrical fitting	Identical to E1
E3 (Error 3)	A defect in the connected electrical circuit or in the electrical fitting resisting winding occurred during the welding process. This error is displayed alternately with the occurrence time of the defect.	Press the "0" push button and keep pressed for approx. 1 second to switch the welder over to the standby mode. The display will show the percentage of the finish of the welding process. The possibility of repeating the welding process must be consulted with the manufacturer of the fitting.
E4 (Error 4)	The interior temperature of the welder exceeded the allowed limit. At the same time, all functions of the equipment, except the switch-off push button, have been interlocked.	Disconnect the welder from the power supply and place it in a shady place to cool down for a period of 10 –15 minutes. <b>Never cool the welder with water, ice or by placing it in a refrigerator. If cooled down incorrectly, the welder can be damaged!!!</b>
E5 (Error 5)	The welding process was interrupted by the operator	
E5 (Error 6)	Defect in the equipment	Take the equipment to your service centre.

## 5. Specifications

<b>Equipment type</b>	<b>SVEL - 950</b>
Power supply (V):	230
Power input (W):	920
The method of interference elimination complies with ČSN EN 55011 (33 4225)	
The intensity of warming-up the power cords complies with ČSN EN 563 (83 3278)	
Protection:	IP 24
Range of working temperatures (°C):	0 - 45
Dimensions LxWxH (mm):	140x115x60
Power cord length (m):	min. 1.6
Length of electrical fitting connecting cables (m):	2
Weight (kg):	1

## 6. Safety Instructions

All products manufactured by DYTRON EUROPE s. r. o. have been tested by a national testing laboratory and a Certificate of Conformance has been issued. The technical requirements used to assess conformance are imposed by EU 89/392 EEC, EU 73/23 EEC and EU 89/336 EEC directives. The products are safe.

Despite the above, we recommend following these safety instructions:

- Use the welder:
  - to weld electrical fittings
  - in an environment free from aggressive gases, combustibles and explosives
- The electrical fittings welder must not:
  - come into contact with water
  - be used in a damp environment
  - be used for work it is not designed for
  - be suspended by the power cord or by the fitting connecting cables
  - be left switched on unattended
  - be dismantled and repaired in an unauthorised service shop
- Fittings in water must not be welded.
- Protect your welder from shocks that could result in damage to the electronics or in damage to the equipment as a whole.
- The equipment must only be operated by a person properly trained by a welding instructor.
- According to EN 60 335-1, electrical fittings welders are classified as class I manual tools. For safety reasons, use power sockets that are properly earthed when working in a normal environment (this also applies to extension cords which should be three-core cables connected in compliance with the applicable standards). The socket should be protected with a ground fault interrupter.
- An insulation transformer should be used for protection when working in an outdoor environment.
- Avoid using damaged and unprofessionally repaired extension cables or cables of an unknown origin.
- Make sure the power supply cables and sockets are in good order.
- If the power cord of this appliance is damaged, it should be replaced by the manufacturer or a service engineer or a similarly qualified person to avoid any dangerous occurrences.

- **Electrical fittings are connected using special resistance cables. Warming up the cables complies with the working conditions of the equipment and certainly does not imply a defect. Never repair or replace the cables if damaged. If these cables or the supply cord is damaged, they should be replaced by a new one by the manufacturer or by a service centre.**

## 7. Safety Inspections

Initial inspections of products are performed by the manufacturer. According to EN 60 335-1, users are advised to inspect class I manual tools within the periods stated in the table below.

Group	Frequency
<b>A</b> (the tool is used infrequently - up to 100 operating hours per year)	6 months
<b>B</b> (the tool is used frequently in short periods (100 to 250 operating hours per year))	3 months
<b>C</b> (the tool is used frequently for longer periods (more than 250 operating hours per year))	2 months

**DYTRON can provide all inspections on request.**

The correct functioning of the welder should be verified at least once a year. DYTRON can provide this inspection upon request.

The safety inspection date (month/year) is permanently marked on the equipment.

**CAUTION!** When an extension cable is used with the welder to connect it to the mains, for safety reasons, it should be inspected along with the welder in compliance with EN 60 335-1.

## 8. Maintenance

The welder does not require any special maintenance. The electronics case, the supply cables and the terminals used to connect the electrical fittings should be kept clean. If the equipment becomes heavily soiled, it should be cleaned with a damp rag and a soap solution and only used again after it is properly dried. Cable terminals can be cleaned with ethanol (de-natured alcohol). After wet cleaning, the welder and the terminals for the connection of electrical fittings should be properly dried. Always perform maintenance and cleaning work with the equipment disconnected from the mains!

## 9. Old Welder Disposal

DYTRON EUROPE s.r.o. will safely dispose of rejected welders for a token fee. Please hand over or send welders to your service centre.

## 10. Warranty Conditions

- DYTRON EUROPE s.r.o. is not responsible either for the loss of profit, good reputation and business, or accidental, special and consequent damage occurring from the use or, on the contrary, the impossibility to use this product.
- The manufacturer is responsible for the quality and good workmanship of the electrical fittings welder for a period of 12 months from the date of purchase, provided it is used and operated in accordance with the conditions shown in the instructions.
- All defects which are due to a failure in the product or in the material will be repaired free of charge during the warranty period.
- The warranty period will be extended by the time that the product is being repaired under the warranty.
- The warranty does not apply to cases:
  - which occur because of the incorrect operation of the equipment;
  - which occur because of the non-adherence to the technical conditions of the equipment operation;
  - of usual wear;
  - of intentional damage;
  - of damage to the equipment which occurs as a result of an unpreventable incident or a natural disaster (fire, flood, theft, violent damage, etc.).
- The warranty is void if the Warranty Card is not properly completed by the seller.
- The Warranty Card is a part of the equipment.

## 11. List of Authorised Service Shops

for the Czech Republic:

**DYTRON EUROPE s.r.o.**  
**Toužimská 943/24a**  
**197 00 Praha 9 - Kbely**  
**Tel.: +420-266190031-3**

for Slovakia:

**ant s.r.o.**  
**Staré grunty 17**  
**841 04 Bratislava**  
**Tel.: +421-260103718-9**  
**Fax: +421-265425164**

Date of acceptance for repair		Guarantee period extended until:	Defect description	Signature
Guarantee repair	Post-guarantee repair			