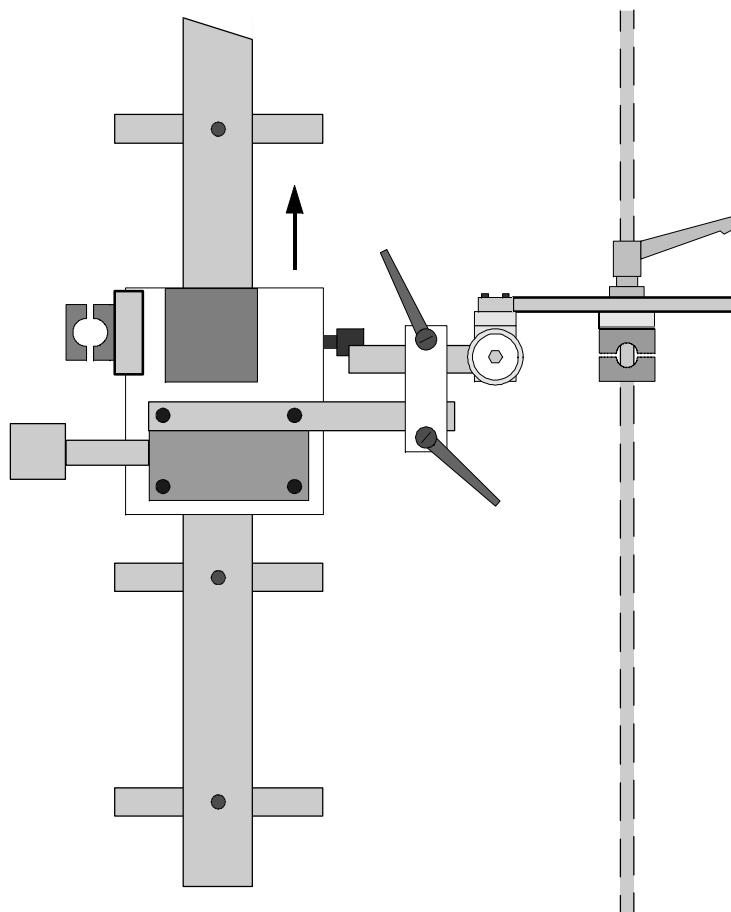


Railtrac

F1000/ FR1000



**Bruksanvisning
Brugsanvisning
Bruksanvisning
Käyttöohjeet
Instruction manual
Betriebsanweisung**

**Manuel d'instructions
Gebruiksaanwijzing
Instrucciones de uso
Istruzioni per l'uso
Manual de instruções
Οδηγίες χρήσεως**

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Rätt till ändring av specifikationer utan avisering förbehålles.
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1 DIRECTIVE

DECLARATION OF CONFORMITY

Esab Welding Equipment AB, S-695 81 Laxå, Sweden, gives its unreserved guarantee that automatic welding machine F1000/FR1000 from serial number 735 complies with standard EN 60292, in accordance with the requirements of directive (89/392/EEC) and addendum (93/68/EEC), and with standard EN 50199, in accordance with the requirements of directive (89/336/EEC) and addendum (93/68/EEC).

Laxå 2000-01-03



Anders Birgersson
Managing Director
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2 SAFETY

Users of ESAB welding equipment have the ultimate responsibility for ensuring that anyone who works on or near the equipment observes all the relevant safety precautions. Safety precautions must meet the requirements that apply to this type of welding equipment. The following recommendations should be observed in addition to the standard regulations that apply to the work place.

All work must be carried out by trained personnel well familiar with the operation of the welding equipment.

Incorrect operation of the equipment may lead to hazardous situations which can result in injury to the operator and damage to the equipment.

1. Anyone who uses the welding equipment must be familiar with:
 - its operation
 - location of emergency stops
 - its function
 - relevant safety precautions
 - welding
2. The operator must ensure that:
 - no unauthorized person is stationed within the working area of the equipment when it is started up.
 - that no-one is unprotected when the arc is struck
3. The work place must:
 - be suitable for the purpose
 - be free from draughts
4. Personal safety equipment
 - Always wear recommended personal safety equipment, such as safety glasses, flame-proof clothing, safety gloves.
 - Do not wear loose-fitting items, such as scarves, bracelets, rings, etc., which could become trapped or cause burns.
5. General precautions
 - Make sure the return cable is connected securely.
 - Work on high voltage equipment **shall only be carried out by a qualified electrician.**
 - Appropriate fire extinguishing equipment must be clearly marked and close at hand.
 - Lubrication and maintenance must **not** be carried out on the equipment during operation.



WARNING



ARC WELDING AND CUTTING CAN BE INJURIOUS TO YOURSELF AND OTHERS. TAKE PRECAUTIONS WHEN WELDING. ASK FOR YOUR EMPLOYER'S SAFETY PRACTICES WHICH SHOULD BE BASED ON MANUFACTURERS' HAZARD DATA.

ELECTRIC SHOCK - Can kill

- Install and earth the welding unit in accordance with applicable standards.
- Do not touch live electrical parts or electrodes with bare skin, wet gloves or wet clothing.
- Insulate yourself from earth and the workpiece.
- Ensure your working stance is safe.

FUMES AND GASES - Can be dangerous to health

- Keep your head out of the fumes.
- Use ventilation, extraction at the arc, or both, to keep fumes and gases from your breathing zone and the general area.

ARC RAYS - Can injure eyes and burn skin.

- Protect your eyes and body. Use the correct welding screen and filter lens and wear protective clothing.
- Protect bystanders with suitable screens or curtains.

FIRE HAZARD

- Sparks (spatter) can cause fire. Make sure therefore that there are no inflammable materials nearby.

NOISE - Excessive noise can damage hearing

- Protect your ears. Use ear defenders or other hearing protection.
- Warn bystanders of the risk.

MALFUNCTION - Call for expert assistance in the event of malfunction.

READ AND UNDERSTAND THE INSTRUCTION MANUAL BEFORE INSTALLING OR OPERATING.

PROTECT YOURSELF AND OTHERS!

Note:

All warranty undertakings given by the supplier cease to apply if the customer attempts to rectify any faults on the machine during the warranty period.

3 INTRODUCTION

3.1 General

Railtrac 1000 is a series of equipment for mechanisation offering increased efficiency and better working environment when welding and cutting. The equipment can be used for both horizontal and vertical joints.

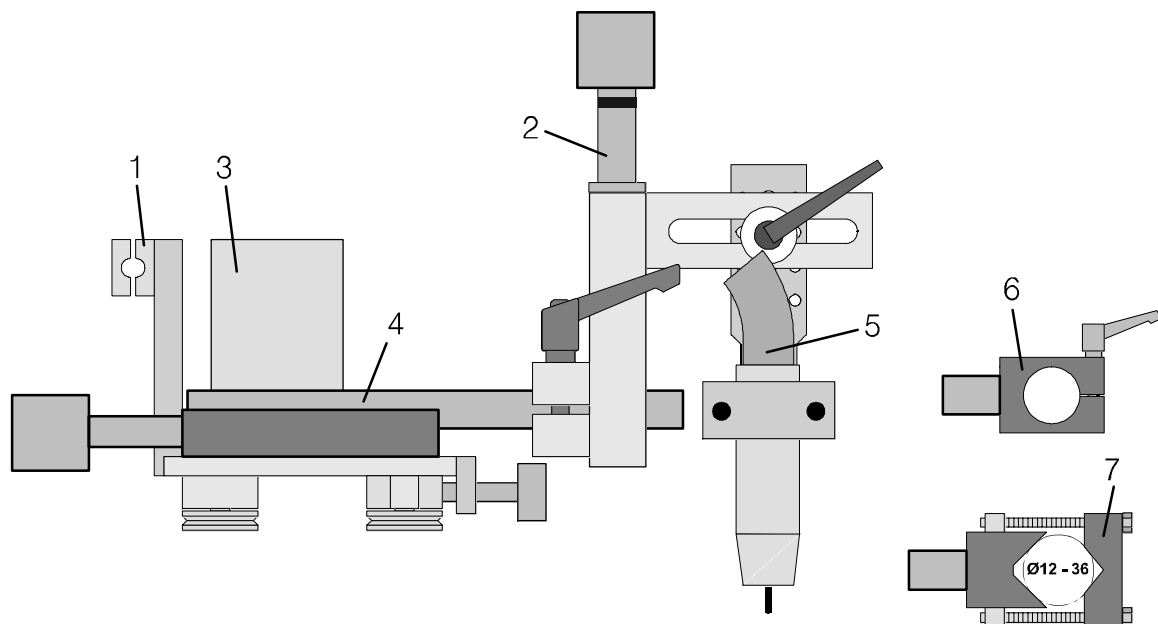
Railtrac F1000 (Flexi) and Railtrac FR1000 (Flexi Return adjustable start, stop and return functions) are two machines which can weld along curved objects.

Each equipment consists of a travel carriage, a rail and a control box.

The rail is made of extruded aluminium and can easily be extended, shortened or stiffened. As the rail does not contain any racks the risk of service interruption due to spatter from the weld is minimised.

The flexible rail can be bent down to a diameter of three meters without being deformed. For diameters between three and one meter the rail will be permanently deformed. For smaller diameters specially rolled rings are used.

The rail is attached to the ground by way of magnetic brackets or vacuum brackets. For secure attachment each vacuum holder consists of one ejector and two vacuum suction cups.



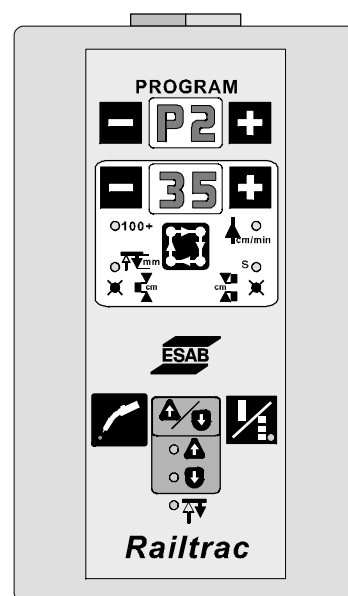
- | | |
|---------------------|----------------------|
| 1. Cable support | 5. Torch holder |
| 2. Vertical slide | 6. Esab PSF (Option) |
| 3. Horizontal slide | 7. Universal |
| 4. Carriage | |

3.2 Control box

The control box has memory for 5 pre-programmed welding schedules.

All values on the display are true values in mm, cm or seconds.

By means of the control box the machine can be started and stopped with or without welding, the welding direction be selected, the welding speed adjusted and machine set for rapid speed.



3.3 Technical data

	Railtrac F1000/FR1000
Power supply	30-46 VAC / 36-60 VDC
Power consumption	30 W
Weight (excluding rail)	7 Kg
Dimension rail	50x60 mm
Min. bend diameter	Ø 3000 mm
Slide vertical adjustment	±22 mm
Slide horizontal adjustment	±28 mm
Max. temperature machine/magnet	70° C
Max. temperature vacuum brackets	100° C
Welding speed	100 - 1500 mm/min
Quick transport speed	1500 mm/min
Interval welding	10 - 990 mm
Preheat	0.0 - 9.9 s
Crater filling time	0.0 - 9.9 s
Backfill	0 - 99 mm
Torch holder	Ø12 - 36 mm

4 INSTALLATION

4.1 General

The installation shall be executed by a professional.

4.2 Connections

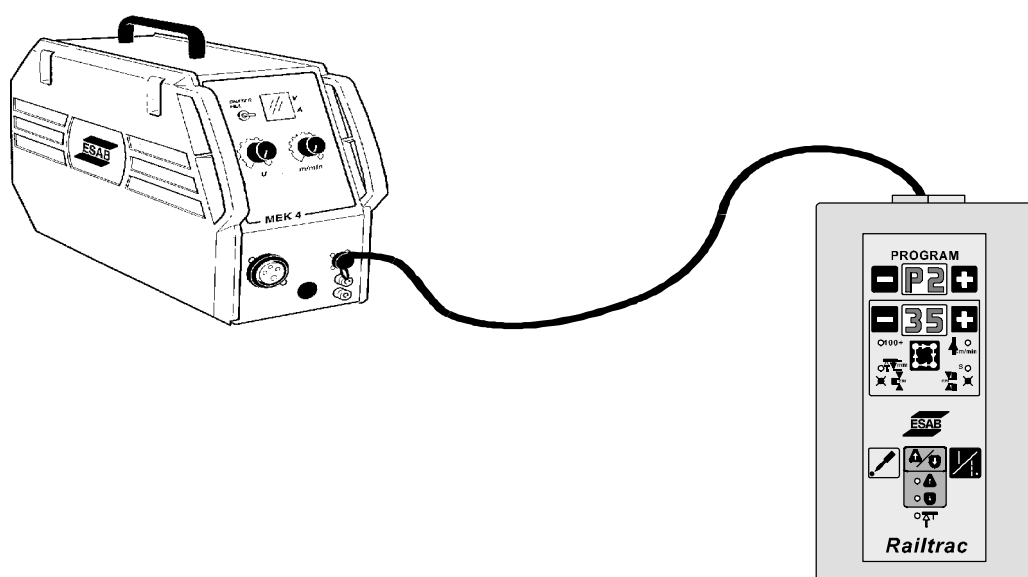
MEK 4 wire feeders

Cable kit MEK4

0457 462 880

Control cable, 23 pins

0457 360 880



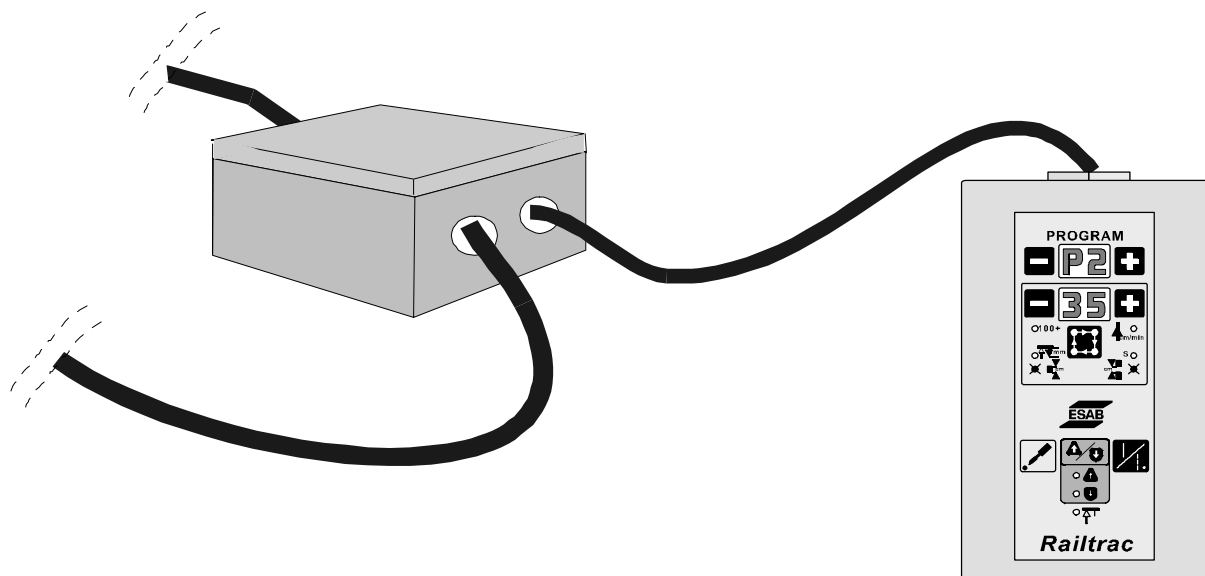
Universal

230 V Transformer

0457 467 880

Universal control cable

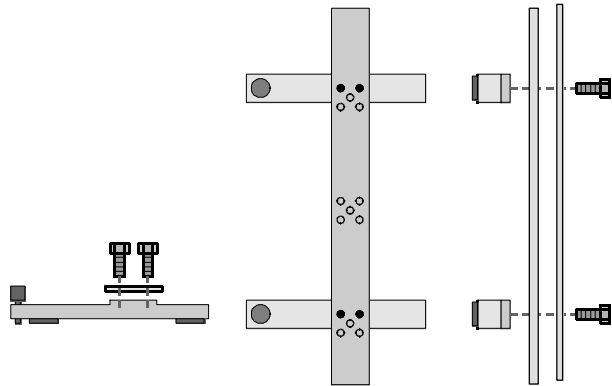
0457 360 881



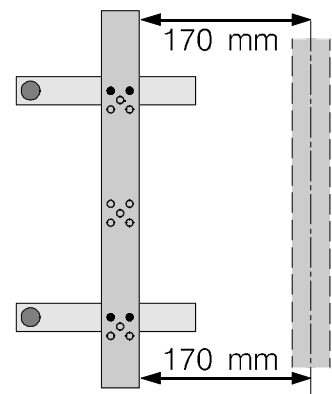
4.3 Mounting

Follow the instructions below for the mounting of brackets, carriage, torch holder and for connection of the control box.

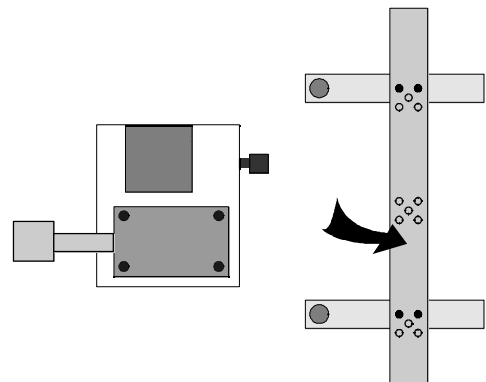
- Mount the magnet brackets on the aluminium rail.
If necessary, attach the stiffener bar.



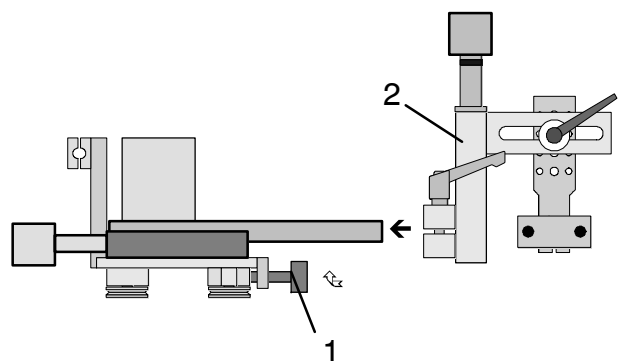
- Adjust the rail parallel to the joint.



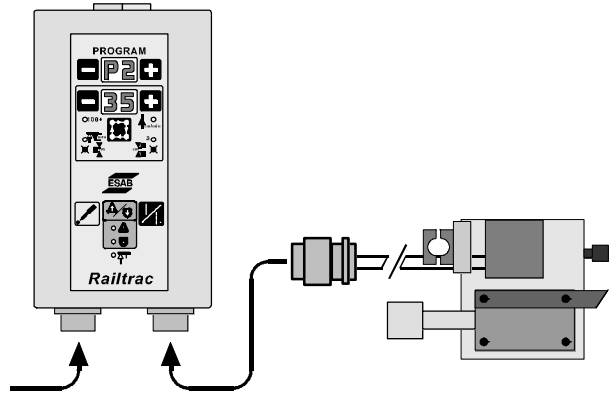
- Put the carriage on the rail.



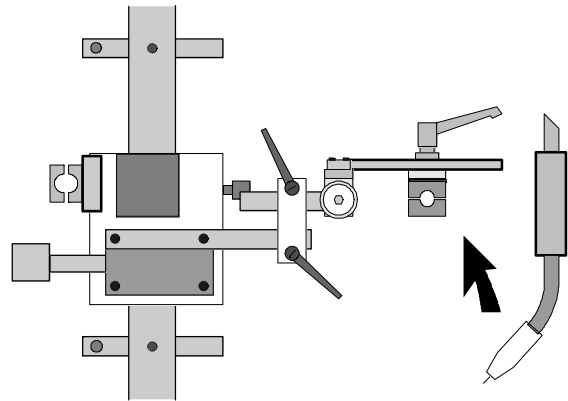
- Tighten the locking screw (1).
Mount the torch holder (2).



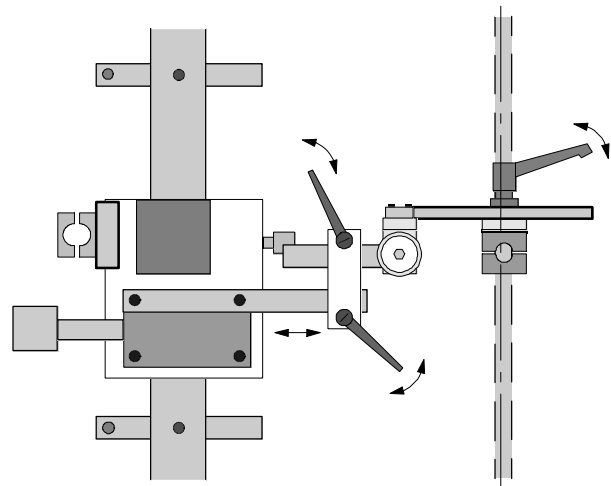
- Connect the control box.



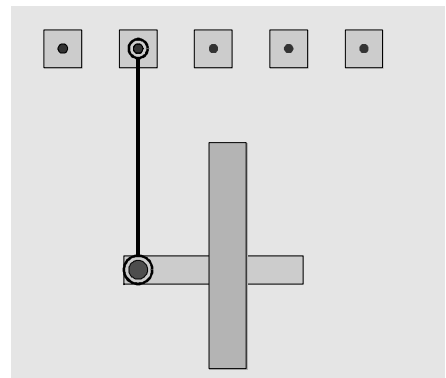
- Mount the torch and fix the hose package.



- Adjust the welding gun for correct position.



- Secure the rail from falling down by way of a wire or the like.

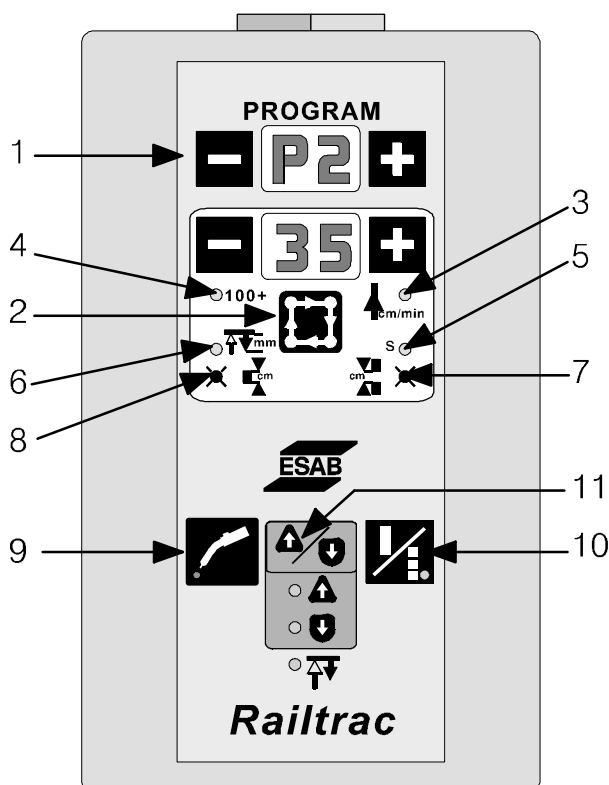


5 OPERATION

5.1 General

General safety regulations for the handling of the equipment appear from page 48. Read through before you start using the equipment!

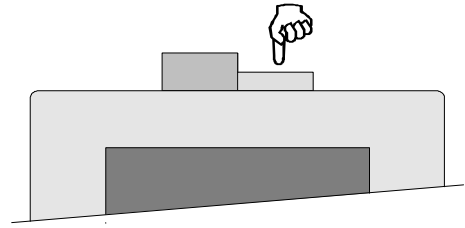
5.2 Control box



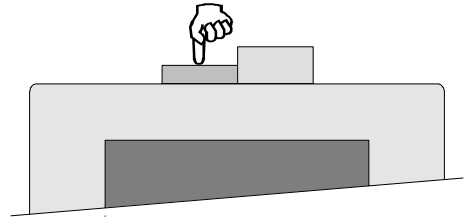
1	Program selection	The unit can store 5 different programmes, P1-P5.
2	Select	Select menus for programming welding speed, crater-/ filling time, backfill and intermittent welding
3	Speed	The display shows the programmed welding speeds in cm/min.
4	100+	Indicates when the display shows speeds above 100cm/min.
5	Crater filling time	The time for which the machine stands still and the wire feeders built-in crater filling function is activated.
6	Backfill	Backfill can be used for the crater filling if the power unit does not incorporate the crater fill feature. The carriage reverses a short distance (adjustable 0-9,9 cm) at the end of each weld in order to fill the crater.
7	Interval	LED is blinking. Interval 1 - 99 cm between each weld.
8	Weld length	LED is blinking. Weld length is 1 -99 cm.
9	Weld ON/OFF	Red LED indicates weld on. No LED indicates off.
10	Intermittent or continuous welding	The green LED indicates that the machine is set for interval welding.
11	Welding direction	To be selected before carriage is started.

5.3 Start/Stop

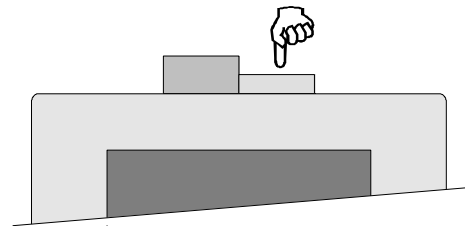
- Start (green push-button)



- Stop (red push-button)



- If **Crater filling time** or **Backfill** have been pre-programmed you have to stop the welding with the push-button for **Start** (green)



6 MAINTENANCE

6.1 General

Note:

All warranty undertakings given by the supplier cease to apply if the customer attempts to rectify any faults on the machine during the warranty period.

Daily

Check that all cables and plugs are intact.

Clean the magnet, vacuum cups and air hoses and check for damage.

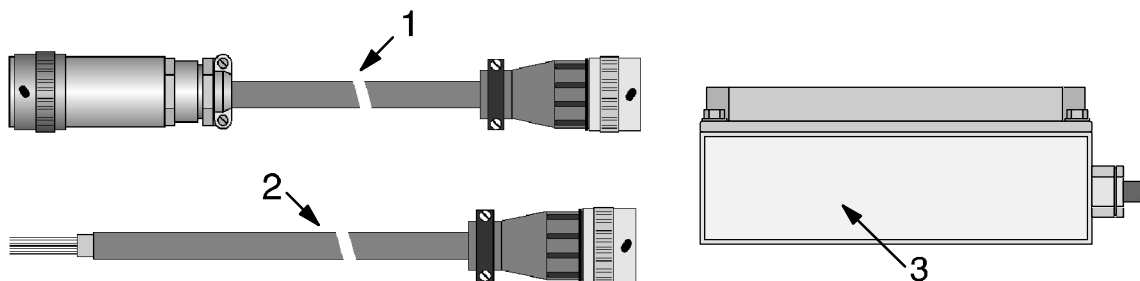
Check that the rail is not damaged.

Clean the carriage and the torch holder.

7 ACCESSORIES

7.1 General

- 1. Control cable (12p-23p) Railtrac -MEK 0457 360 880
- 2. Universal connection cable 12-pin plug 0457 360 881
- 3. Transformer 230/36 VAC with 12-pin plug 0457 467 880



- Cable kit MEK 4 for 23-pin plug 0457 462 880
- Connection cable for 12-pins + 4-pins plug 0457 360 883
- Connection kit with 4-pin remote control plug 0443 341 880
- Floating welding head 0398 145 211

A **floating welding head** holds the torch of the welding or cutting equipment at a constant height above the surface during the work.

8 SPARE PARTS

Spare parts are ordered through your nearest ESAB representative, see back cover. When ordering spare parts, please state machine type and number as well as designation and spare part number as shown in the spare parts list on page 137. This will simplify dispatch and ensure you get the right part.