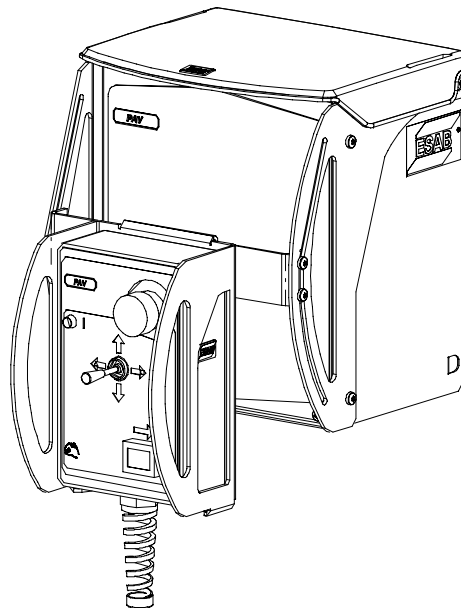
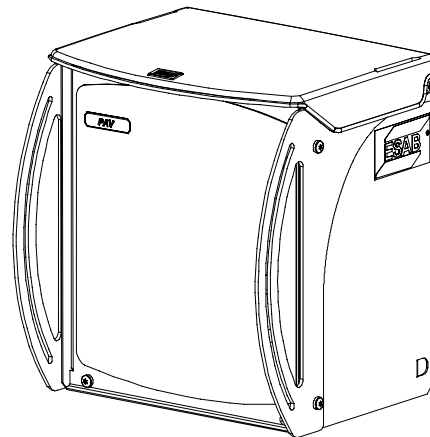
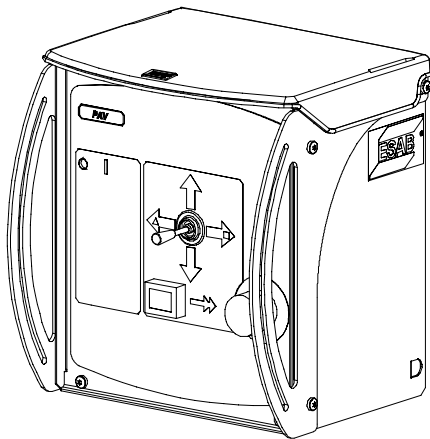


# PAV



**Bruksanvisning  
Brugsanvisning  
Bruksanvisning  
Käyttöohjeet  
Instruction manual  
Betriebsanweisung  
Manuel d'instructions  
Gebruiksaanwijzing  
Instrucciones de uso  
Istruzioni per l'uso**

**Manual de instruções  
Οδηγίες χρήσεως  
Instrukcja obsługi  
Kezelési utasítások  
Návod k používání  
Navod na pouitje  
Lietošanas pamācība  
Eksploataavimo instrukcijos  
Priručnik s uputama  
Manualul de instrucțiuni**

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Rätt till ändring av specifikationer utan avisering förbehålles.  
Ret til ændring af specifikationer uden varsel forbeholdes.  
Rett til å endre spesifikasjoner uten varsel forbeholdes.  
Oikeudet muutoksiin pidätetään.  
Rights reserved to alter specifications without notice.  
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Διατηρείται το δικαίωμα τροποποίησης προδιαγραφών χωρίς προειδοποίηση.  
Zastrzegamy sobie prawo do wprowadzenia zmian.  
Fenntartjuk az előzetes bejelentés nélküli változtatás jogát.  
Výrobce si vyhrazuje právo na změnu údajů bez předcházejícího upozornění.  
Výrobca si vyhradzuje právo na uskutočnenie zmien bez upovedomenia.  
Tiek paturētas tiesības bez iepriekšēja brīdinājuma izmainīt specifikācijas.  
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Rights reserved to alter specifications without notice.

Enheten är provad av ESAB i en allmän inkoppling.  
Ansvaret för den slutliga inkopplingens säkerhet och funktion åligger Intergratören.

---

Enheden er testet af ESAB i en generel forbindelse.  
Ansvaret for den endelige forbindelses sikkerhed og funktion påhviler integratoren.

---

Enheten er testet av ESAB i en generell tilkobling. Den som integrerer systemet, har ansvaret for sikkerheten og funksjonen ved den endelige tilkoblingen.

---

ESAB on koekäyttänyt yksikön yleisessä sähköliitännässä.  
Vastuu lopullisen kytkennän turvallisuudesta ja toimimisesta on integraattorilla.

---

The unit is tested by ESAB in a general purpose operation.  
Responsibility for the safety and function of the final operation remains with the Integrator.

---

Die Einheit wurde von ESAB in einer allgemeinen Schaltung geprüft.  
Die Verantwortung für die Sicherheit und Funktion der letztendlichen Schaltung liegt beim Integrator.

---

L'unité est testée par ESAB sur un raccordement général.  
L'Intégrateur est le seul responsable de la sécurité et du fonctionnement du raccordement définitif.

---

De eenheid werd door ESAB getest in een algemene schakeling.  
Diegene die de uiteindelijke schakeling uitvoert is aansprakelijk voor de veiligheid en werking ervan.

---

La unidad ha sido probada por ESAB en una conexión general.  
La seguridad y la funcionalidad de la conexión final son responsabilidad del Integrador.

---

L'unità è stata testata da ESAB in un impianto generico.  
La sicurezza e il funzionamento dell'impianto finale sono di responsabilità dell'installatore.

---

A unidade foi testada pela ESAB numa ligação de carácter geral.  
O integrador é responsável pela segurança da ligação final e pelo funcionamento.

---

Η μονάδα είναι δοκιμασμένη από την ESAB σε με κοινή σύνδεση.  
Η ευθύνη για την ασφάλεια και λειτουργία της τελικής σύνδεσης είναι του ολοκληρωτή.

---

Jednostka została przetestowana przez firmę ESAB dla ogólnej konfiguracji podłączenia.  
Za bezpieczeństwo i działanie końcowej konfiguracji podłączenia odpowiada Wykonawca.

---

Az egység az ESAB cégnél egy általános célú művelet során kipróbálásra került.  
A végső működés során a biztonságért és a működésért az integrátor felel.

---

Společnost ESAB jednotku testuje v obecném provozu.  
Odpovědnost za bezpečnost a funkčnost konečného provozu nese osoba, která provedla zabudování.

---

Jednotka je testovaná vo všeobecnej prevádzke spoločnosťou ESAB.  
Za bezpečnosť a funkčnosť konečnej prevádzky stále zodpovedá integrátor.

---

Iekārta ir ESAB pārbaudīta vispusīgas ekspluatācijas apstākļos.  
Par galaizmantošanas drošību un darbību atbildīgs ir integrators.

---

Įrenginio veikimas naudojant jį pagal benraįą paskirtį patikrintas ESAB.  
Už įrenginio galutinio veikimo saugą ir funkcijas atsako įrangos montuotojas.

---

ESAB je testirao jedinicu u operaciji opće namjene.  
Odgovornost za sigurnost i funkciju završne operacije ostaje na Integratoru.

-----  
Unitatea este testată de ESAB în timpul funcționării în scop general.  
Responsabilitatea pentru siguranță și funcționarea finală este a Integratorului.  
-----

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---

# 1 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 workplace.

All work must be carried out by trained personnel well-acquainted 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 unauthorised person is stationed within the working area of the equipment when it is started up.
  - no-one is unprotected when the arc is struck
3. The workplace 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 **may 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 take fumes and gases away 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 earmuffs 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!**

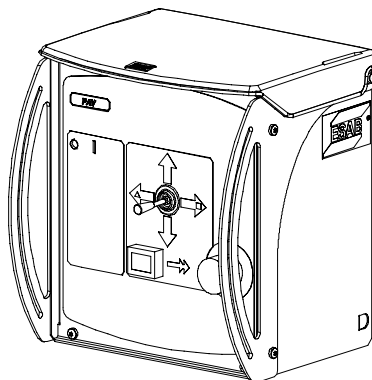
## 2 INTRODUCTION

### 2.1 General

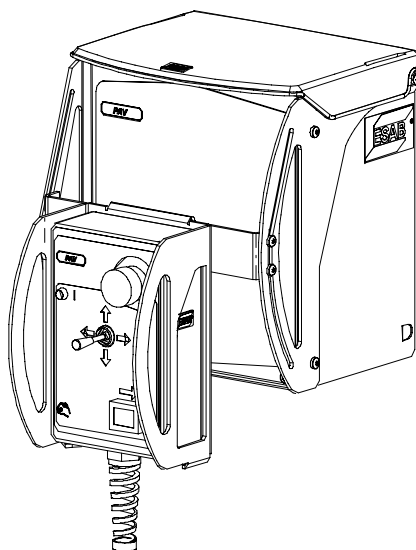
**PAV** is a control system for motorised slides. The system is available in several variants, see below.

### 2.2 Variants

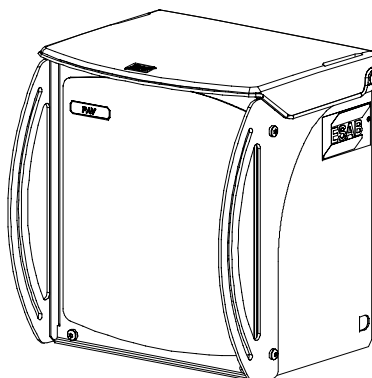
- Joint-tracking unit with control panel.



- Joint-tracking unit with portable control box.



- Built-in component for columns and booms.





## 2.3 Technical data

	<b>PAV</b>
<b>Supply voltage</b>	42V AC, 50–60 Hz
<b>Current output</b>	450 V A
<b>Ambient temperature</b>	–15° C – + 45° C
<b>Relative atmospheric humidity</b>	Max. 98%
<b>Max. motor current</b>	6A 100%
<b>Enclosure class</b>	IP 23
<b>Current limits</b>	15 A (hardware current limit)
<b>Power supply fusing</b>	10 A slow
<b>Motor regulator, type</b>	Switched four quadrant reg.
<b>Rotor voltage</b>	40 V DC
<b>Field voltage, separate magnetised motor</b>	60 V DC
<b>Weights:</b>	
Joint-tracking unit	6,2 kg
Portable control box:	2,7 kg (complete with 4m cable and protection)

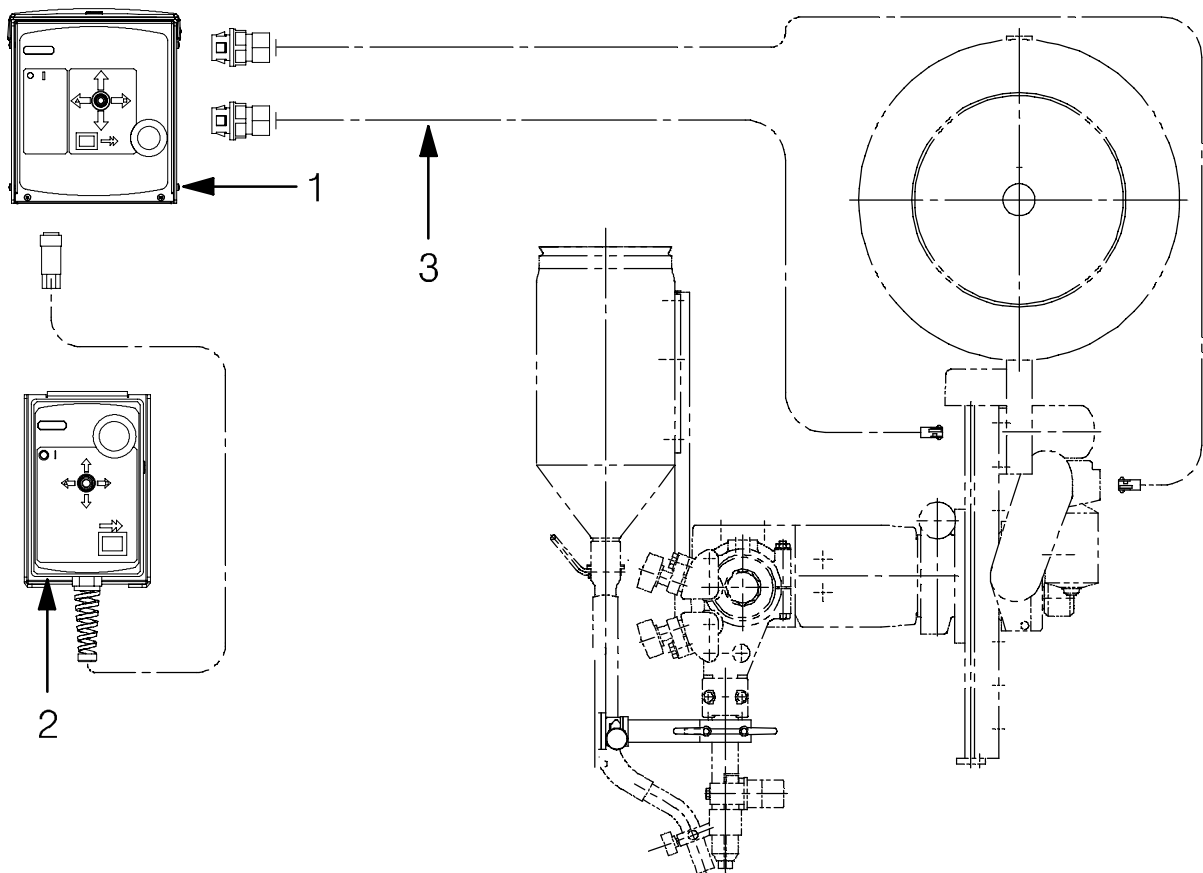
### Enclosure class

The **IP** code indicates the enclosure class, i. e. the degree of protection against penetration by solid objects or water. Equipment marked **IP 23** is designed for indoor and outdoor use.

## 2.4 Main parts

1. Joint-tracking unit (with or without control panel)
2. Portable control box
3. Motor cable (see **Accessories**)

For more information, see the chapter "**Operation**", on page 12.



---

## **3    INSTALLATION**

---

### **3.1    General**

*The installation must be executed by a professional.*

### **3.2    Installation and connection**

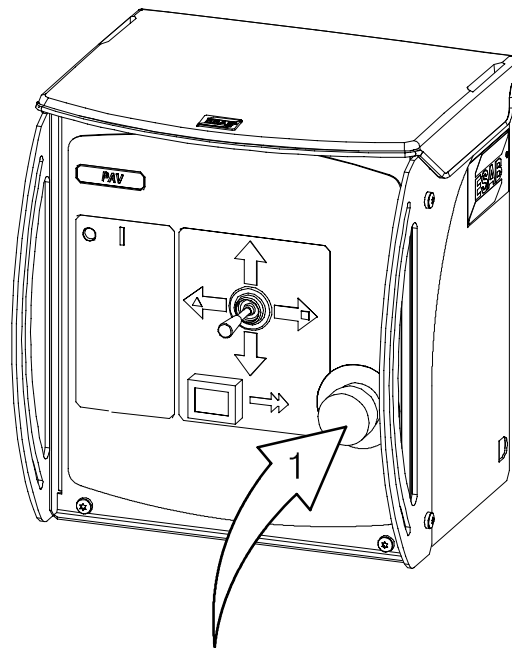
1. Measurement information, see the dimension drawings on pages 253-254.
2. Connection, see the diagrams on pages 250-252.
3. Check that the required output and voltage is available for complete installation.

## 4 OPERATION

### 4.1 General

**General safety regulations for the handling of the equipment can be found on page 54. Read through before you start using the equipment!**

### 4.2 Joint-tracking unit with control panel



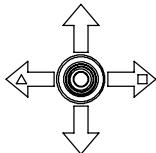
#### **Emergency stop (1)**

- One press on the button activates EMERGENCY STOP

**NB!** An emergency stop must never be reset before the cause of the abnormal function or signal has been established and rectified.

**Signal lamp** ○ | (white)

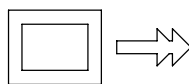
- Illuminates when the power has been switched on.



#### **Control lever**

- Manual control of the servo slides Up/Down and Left/Right.




#### **Lamp pushbutton (rapid speed)**

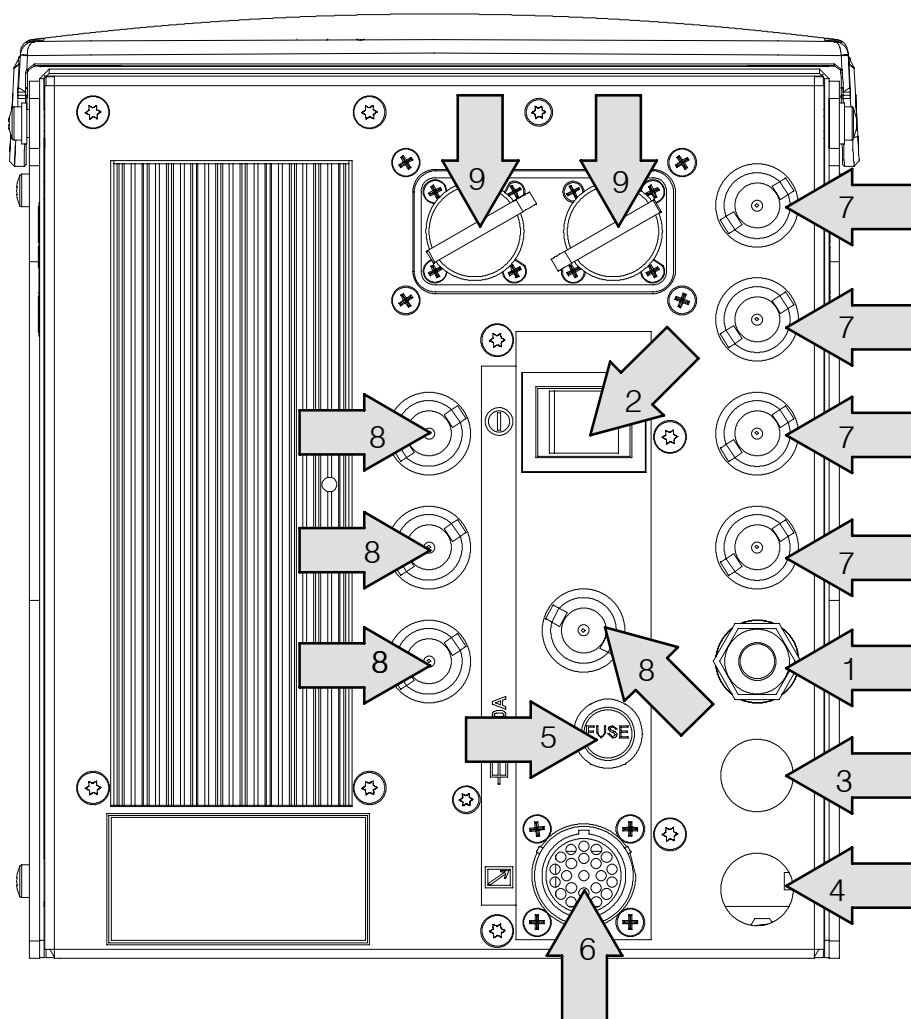


Selection of low or high speed during manual positioning with the control lever.

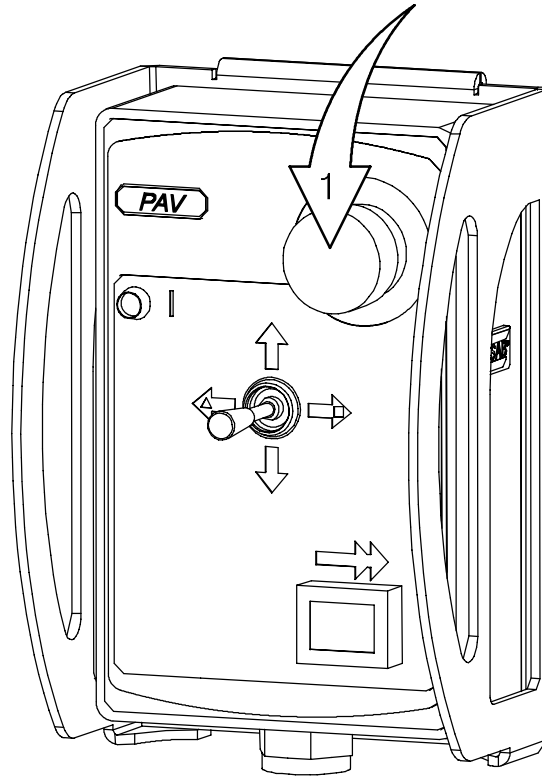
- One press on the button activates rapid speed.  
A lamp in the button illuminates when the function is activated.
- Return to low speed by pressing the button again  
Check that the lamp has gone out before carrying out further commands.

### 4.3 Joint-tracking unit (Rear section)

1		Connection, power supply 42 V
2		Switch Power supply On/Off
3		Socket, for connecting the vertical slide motor
4		Socket, for connecting the horizontal slide motor
5	 10A	Control fuse, 10 A slow
6		Socket (23-pin), for connecting the portable control box.
7		Sockets, for connecting the limit position switch
8		Extra sockets
9		Service contacts



#### 4.4 Portable control box



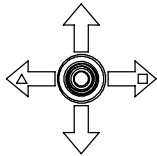
##### **Emergency stop (1)**

- One press on the button activates EMERGENCY STOP

**NB!** An emergency stop must never be reset before the cause of the abnormal function or signal has been established and rectified.

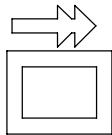
**Signal lamp** ○ □ (white)

- Illuminates when the power has been switched on.



##### **Control lever**

- Manual control of the servo slides Up/Down and Left/Right.



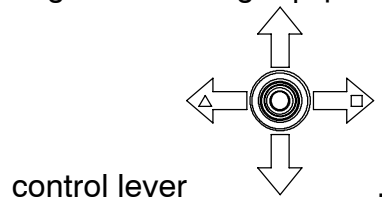
##### **Lamp pushbutton (rapid speed)**

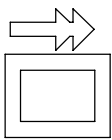
Selection of low or high speed during manual positioning with the control lever.

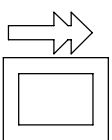
- One press on the button activates rapid speed.  
A lamp in the button illuminates when the function is activated.
- Return to low speed by pressing the button again  
Check that the lamp has gone out before carrying out further commands.

## 4.5 Positioning before welding start

1. Align the welding equipment into position in relation to the weld joint with the



2. For rough settings, press the lamp pushbutton . The lamp illuminates.

3. For precise settings and during welding, check that the lamp pushbutton  is not depressed. The lamp should be switched off.

---

## **5 MAINTENANCE**

---

### **5.1 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.*

- Check that the cables are intact and that they are correctly connected.
- Clean the equipment with compressed air regularly.
- Follow the instructions for the internal components.

---

## **6 ACCESSORIES**

---

	<b>Ordering number:</b>
Intermediate transformer for separate power supply, from mains power 190, 220, 380, 415, 440, 500V 50 Hz 200, 230, 380, 415, 440, 500V 60 Hz to secondary 42V, 660 VA	0148636002
Cable 3 x 2.5 mm <sup>2</sup> , connection, transformer	0262613404
A6 servo slide ball bushing type with permanent magnetised motor 42 V DC	0334333xxx
A6 motor driven slide, slide bearing mounted long runner, with A6 VEC motor 42V - 4000 rpm ratio 74:1	0334426xxx
Motor cable. The cable is available in different lengths, see the appropriate sales brochure for the servo slide. (Contact ESAB's sales office.)	0417310xxx





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