

# MASTER

9904

Operation instructions  
Gebrauchsanweisung  
Gebruiksaanwijzing  
Manuel d'utilisation

1913520E

## MASTER 2850



Français Nederlands Deutsch English

Read carefully these instructions before you use the welding machine !

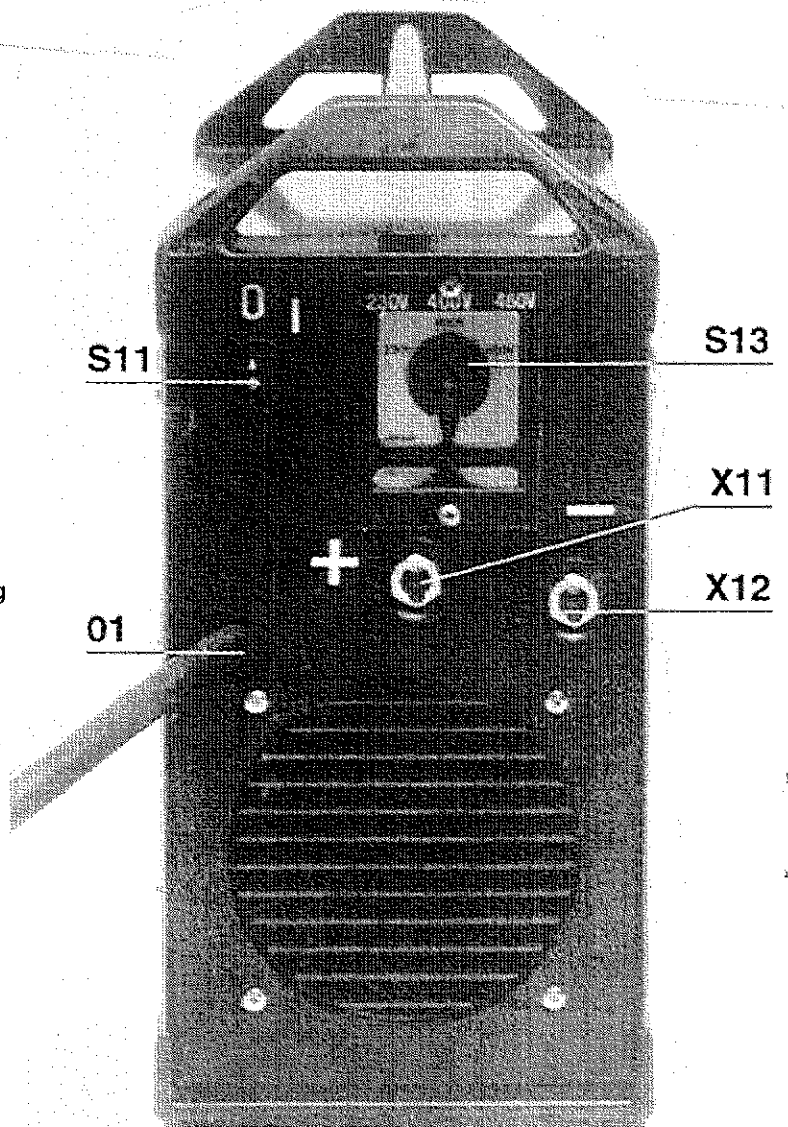
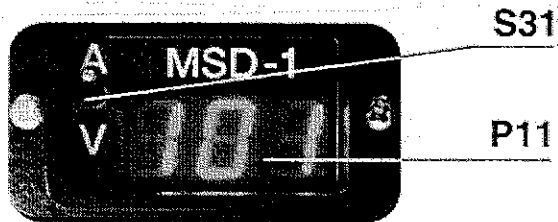
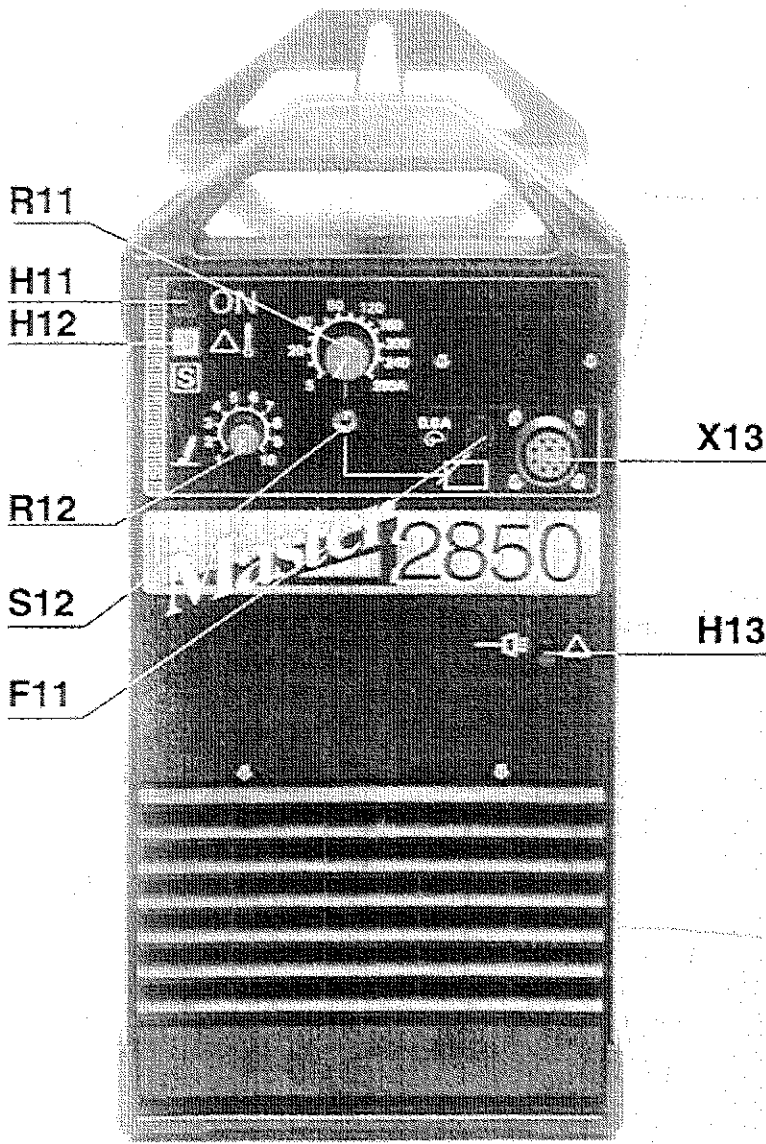
Bitte, lesen Sie diese Gebrauchsanweisungen vor Gebrauch der Schweißmaschine !

Lees deze gebruiksaanwijzing aandachtig door voor u de lasmachine in gebruik neemt !

Veuillez lire et appliquer ces instructions avant utilisation de la machine !

 **KEMPEI**

OPERATION CONTROL AND CONNECTORS  
 BEDIENUNGSELEMENTE UND ANSCHLÜSSE  
 BEDIENING EN AANSLUITINGEN  
 COMMANDES ET CONNECTEURS

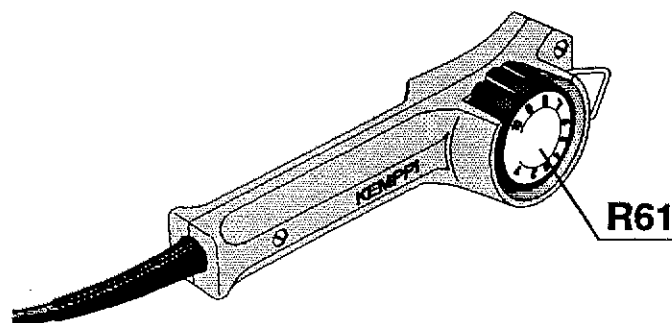


- |            |  |  |   |
|------------|--|--|---|
| <b>P11</b> | Current/Voltage meter<br>Strom-/Spannungsmesser<br>Volt-/ampere meter<br>Ammètre/Voltmètre   | <b>MSD1</b>  | Accessories<br>Zusatzausrüstung<br>Accessoires<br>Accessoires |
| <b>S31</b> | Selection for current/voltage measuring<br>Wahl für Strom-/Spannungsmessung<br>Keuzeschakelaar voor de stroom/spanning aflezing<br>Sélection commande de mesure de courant et de tension |  |   |
| <b>F11</b> | Fuse for remote control connection<br>Sicherung für Fernregelanschluß<br>Zekering voor aansluiting voor afstandbediening<br>Fusible pour connecteur commande à distance                  | 0,8 A slow-blow<br>0,8 A träge<br>0,8 A traag<br>0,8 A temporisé |   |

- H11** Signal lamp I/O  
 Signallampe I/O  
 Signaallamp I/O  
 Voyant lumineux I/O
- H12** Warning lamp for thermal shield  
 Warnungslampe für Wärmeschutz  
 Waarschuwinglicht voor thermische overbelasting  
 Feu indicateur pour écran thermique
- H13** Warning lamp for wrong voltage  
 Warnungslicht für fehlerhafte Spannung  
 Signaallamp  
 Témoin d'erreur de tension
- R11** Adjustment of welding current  
 Einstellung für Schweißstrom  
 Regeling voor lasstroom  
 Réglage du courant de soudage
- R12** Adjustment of MMA welding dynamics  
 Einstellung für Stabelektrodenschweiß-Dynamik  
 Regeling voor elektrodenlassen-dynamiek  
 Réglage pour dynamique du soudage électrode
- S11** Main switch I/O  
 Hauptschalter I/O  
 Hoofdschakelaar I/O  
 Interrupteur principal I/O
- S12** Selection for local/remote control  
 Wahl für Nah-/Fernregelung  
 Keuze voor paneel-/afstandbediening  
 Sélection commande locale/à distance
- S13** Voltage change-over switch  
 Spannungswechselfschalter  
 Keuzeschakelaar voor spanningsverandering  
 Commutateur de changement de tension
- X11** Welding and return current connections  
**X12** Schweiß- und Rückleitungsanschlüsse  
**X12** Aansluiting voor las- en werkstuk kabel  
 Connecteur courant de soudage et de masse
- X13** Connection for remote control  
 Anschluß für Fernregelung  
 Aansluiting voor afstandbediening  
 Connecteur commande à distance
- 01** Inlet of mains cable  
 Durchführung des Netzkabels  
 Doorvoer voor aansluitkabel  
 Passe-câbles

**REMOTE CONTROL DEVICES**  
**FERNREGLER**  
**AFSTANDBEDIENINGEN**  
**COMMANDES A DISTANCE**

**C 100C**



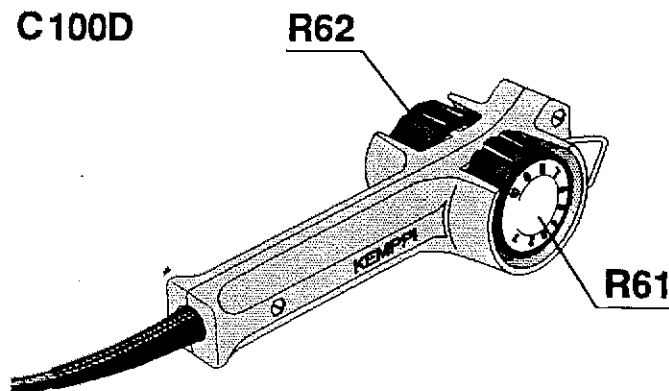
Control of MMA/TIG welding current (R61), reference scale 1-10.

Einstellung für Stabelektroden-/WIG-Schweißstrom (R61), Referenzskala 1-10.

Lasstroomregeling elektroden-/TIG-lasen (R61), schaal 1-10.

Réglage du courant de soudage Electrode/TIG (R61), échelle de mémoire 1-10.

**C 100D**



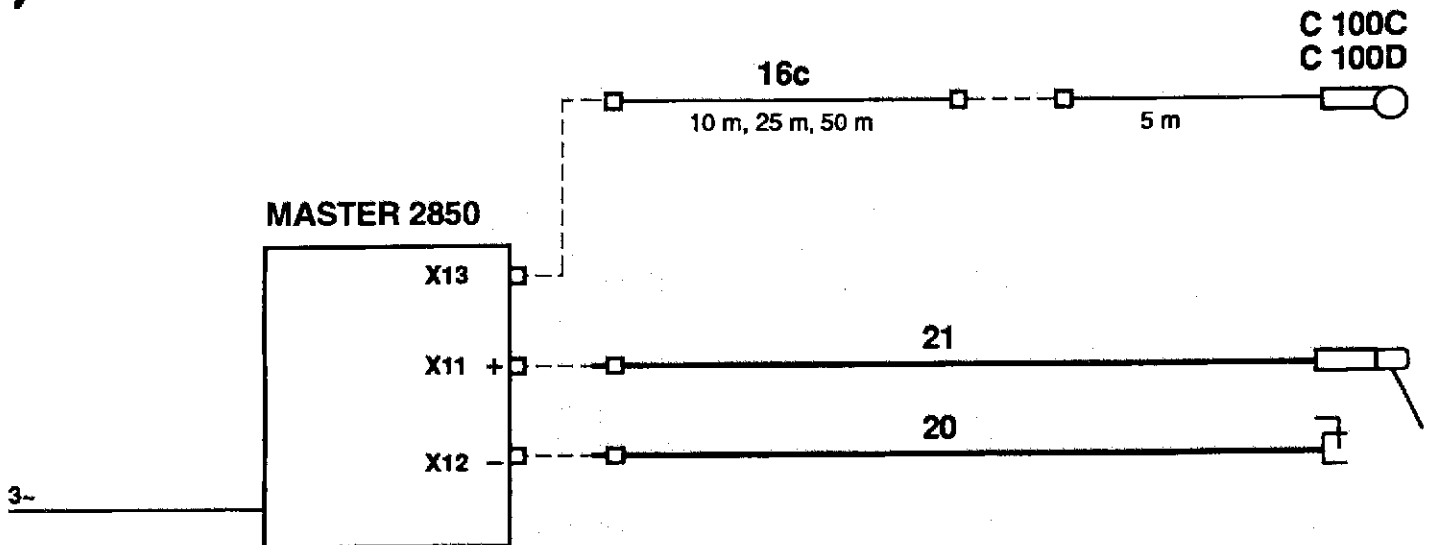
Rough control (R61), reference scale 1-10, and fine control +/- (R62) for MMA/TIG welding current.

Grobeinstellung (R61), Referenzskala 1-10, und Feineinstellung +/- (R62) für Stabelektroden-/WIG-Schweißstrom.

Grofregeeling (R61), schaal 1-10, en fijnregeling +/- (R62) voor lasstroom elektroden-/TIG-lasen.

Réglage d'approche (R61), échelle de mémoire 1-10, et réglage fin +/- (R62) du courant de soudage Electrode/TIG.

CABLES  
KABEL  
KABELS  
CABLES



**16c** Extension cable for remote control  
Verlängerungskabel für Fernregelung  
Verlengkabel voor afstandbediening  
Câble prolongateur pour commande à distance

**20** Return current cable  
Stromrückleitungskabel  
Werkstukkabel  
Câble de masse

**21** Cable for MMA welding  
Kabel für Stabelektrodenschweißen  
Kabel voor elektrodenlassen  
Câble soudage Electrode

**C 100C**  
**C 100D** Remote control devices, see also pages 3 and 6  
Fernregler, auch Seiten 3 und 10 sehen  
Afstandbedieningen, zie ook pag. 3 en 13  
Commandes à distance voir également pages 3  
et 17

**T 120** ..... 6185252  
Transport unit  
Fahrwagen  
Onderwagen  
Chariot

|   |         |
|---|---------|
| <b>MSD1</b> .....                       | 6185666 |
| <b>C 100C</b> .....                     | 6185410 |
| <b>C 100D</b> .....                     | 6185413 |
| <b>16c/10 m</b> .....                   | 6185451 |
| /25 m .....                             | 6185452 |
| /50 m .....                             | 6185453 |
| <b>MASTER 2850</b> .....                | 6130283 |
| <b>20/5 m – 35 mm<sup>2</sup></b> ..... | 6184311 |
| /10 m – 35 mm <sup>2</sup> .....        | 6184312 |
| <b>21/5 m – 35 mm<sup>2</sup></b> ..... | 6184301 |
| /10 m – 35 mm <sup>2</sup> .....        | 6184302 |

# ENGLISH

**MASTER 2850** is a DC power source for MMA welding, designed for demanding professional use, suitable for mains voltages 3~ 230 V, 3~ 400 V and 3~ 460 V.

The **MASTER 2850** power source is protected against overload with overcurrent protections and thermal releases. Operation of a thermal release is indicated with a signal lamp on the front panel of the machine.

The power source is also protected against momentary over- and undervoltages as well as against wrong selected mains voltage, of which is warned by a signal lamp on the front panel of the machine.

To **MASTER** can be connected as accessory the meter unit **MSD 1** as well as different kinds of remote control units.

## TECHNICAL DATA

| <b>MASTER 2850</b>               |  |
|----------------------------------|--|
| Mains voltage 3~, 50/60 Hz       | 220 V -10 % ... 240 V +6%<br>380 V -10 % ... 415 V +6%<br>440 V -10 % ... 480 V +6%  |
| Rated power 3~ 230 V             | 35 % ED 240 A / 10.0 kVA   |
|                                  | 60 % ED 185 A / 7.0 kVA  |
|                                  | 100 % ED 142 A / 5.0 kVA   |
| Rated power 3~ 400 V<br>3~ 460 V | 35 % ED 280 A / 12.0 kVA   |
|                                  | 60 % ED 217 A / 8.0 kVA  |
|                                  | 100 % ED 165 A / 6.5 kVA   |
| Connection cable                 | 4 x 6 mm <sup>2</sup> S  |
| Fuses                            | 16 A slow-blow<br>16 A slow-blow   |
| Welding current range            | 230 V 15 A / 20 V ... 240 A / 29.6 V<br>400 and 460 V 15 A / 20 V ... 280 A / 31.2 V |
| Max. welding voltage             | 55 V / 280 A, 56 V / 166 A   |
| Electrode sizes to be welded     | ø 1.5 ... ca. 6 mm   |
| Welding current control          | stepless   |
| Open circuit voltage             | 75 V DC  |
| Efficiency                       | 81 % (280 A / 31.2 V)  |
| Power factor                     | 0,91 (280 A / 31.2 V)  |
| Open circuit power               | ca. 25 W   |
| Storage temperature range        | -40 ... +60 °C   |
| Operation temperature range      | -20 ... +40 °C   |
| Temperature class                | H (180 °C) / B (130 °C)  |
| Degree of protection             | IP 23C   |
| External dimensions:             | length 625 mm  |
|                                  | width 215 mm   |
|                                  | height 445 mm  |
| Weight                           | 31 kg  |
| Remote control connection        | 24 V AC, fuse 0.8 A slow-blow  |
| Welding cable connections        | DIX50  |
| Shielding gas connection         | R 1/8 in internal thread   |

The product meets conformity requirements for CE marking.

## INSTALLATION

### Siting the machine

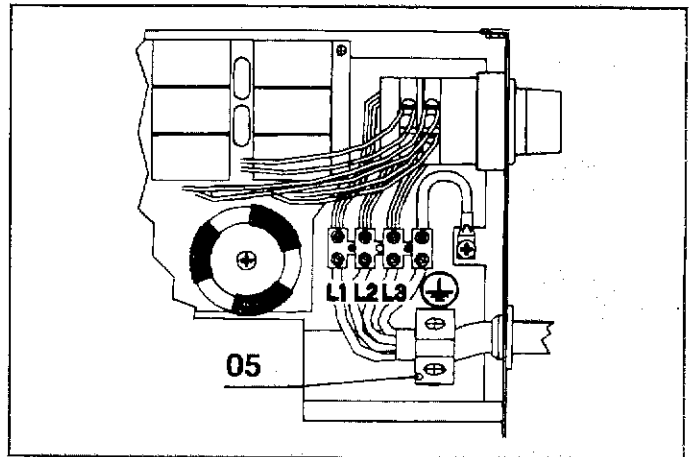
- By siting of the machine you should consider the following:
- Site the machine on a fixed dry base, from which there doesn't come any dust etc. into suction air.
  - SEE TO THAT THE MACHINE IS POSITIONED AWAY FROM THE LINE OF PARTICLE SPRAY, CREATED BY GRINDING TOOLS ETC.
  - Preferably site the machine somewhat higher above the floor level.
  - See to that in front of the machine as well as at the rear of the machine there is at least 20 cm free distance to allow good circulation of the cooling air through the machine.
  - PROTECT THE MACHINE AGAINST HEAVY RAIN AND IN HOT CIRCUMSTANCES AGAINST DIRECT SUNSHINE.
  - Ensure the free circulation of the cooling air.

### Connection to the mains supply

**CONNECTION OF THE MAINS CABLE AND MOUNTING AND CHANGE OF THE PLUG SHOULD ONLY BE CARRIED OUT BY A COMPETENT ELECTRICIAN.**

BEFORE CONNECTING THE MAINS CABLE REMOVE HANDLE AND CASING PLATE OF THE MACHINE.

By change of the mains cable take into attention the following:  
The cable is entered into the machine through the inlet ring on the rear panel of the machine and fastened with a cable clamp (05). The phase leads of the cable are coupled to connections L1, L2 and L3. The earth protection coloured green-yellow is coupled to connection  $\oplus$ .



Sizes of the mains cables and fuse ratings for the machine at 100 % duty cycle are specified in the table below:

| <b>MASTER 2850</b> |   |
|--------------------|---|
| Rated voltage      | 3~ 230/400/460 V                                      |
| Fuses              | 16 A slow-blow  |
| Connection cable   | 4 x 6 mm <sup>2</sup> S <sup>*</sup>                  |
| Extension cables   | 5 x 6 mm <sup>2</sup> S <sup>*</sup> (recommendation) |

<sup>\*</sup> In cables of S type there is a protective grounding conductor coloured green-yellow.

### Welding and feed-back current cables

Use only copper cable with cross-sectional area of at least 35 mm<sup>2</sup>.  
DON'T USE THINNER CABLES due to voltage losses and heating.  
Fasten the earthing press of the feed-back current cable carefully, preferably direct onto the piece to be welded. The contact surface of the press should always be as large as possible.

CLEAN THE FASTENING SURFACE FROM PAINT AND RUST!

# OPERATION CONTROL SWITCHES AND POTENTIOMETERS AND THEIR USE

## Main switch I/O

When you turn the switch into I-position, pilot lamp H11 for readiness for use on the front panel is lit, open circuit voltage comes to welding cable connectors and the machine is ready for use.

**ALWAYS START AND SWITCH OFF THE MACHINE WITH THE MAIN SWITCH, NEVER USE THE MAINS PLUG AS A SWITCH.**

## Voltage change-over switch

With voltage change-over switch S13 you can select operating voltage of unit to be according to mains voltage. 3 positions of switch are marked with rated values for voltage ranges 230, 400 and 460 V.

**FIRST TURN MAIN SWITCH INTO POSITION ZERO! SELECT THE RIGHT VOLTAGE RANGE BEFORE CONNECTING WITH MAINS.**

## Wrong selection of voltage

**SELECTION 230 V / MAINS 400 OR 460 V: SIGNAL LAMP IS ILLUMINATED.**

**SELECTION 400 OR 460 V / MAINS 230 V: UNIT WON'T GET STARTED.**


**WRONG SELECTION BETWEEN 400 AND 460 V: UNDER-OR OVERVOLTAGE PROTECTION IS WORKING, IF TRUE MAINS VOLTAGE IS DEVIATING FROM RANGE FOR NORMAL OPERATION.**

**OPERATION MAY CAUSE BREAKS WHICH CAN BE OBSERVED IN ARC**

## Pilot lamp

The pilot lamps of the machine report about the electric operation:

**ON** The green pilot lamp H11 for readiness for use is always on, when the machine is connected to mains supply and the main switch is in I-position.

 Yellow pilot lamp H12 of thermal protection is on when thermostat has released due to overheating of machine. The cooling fan is cooling down the machine and when the pilot lamp goes off, the machine is again ready for welding.

Warning lamp H13 for wrong voltage selection is illuminated, when the equipment gets high overvoltage, e.g. 400 V, when in equipment there is as selected the 230 V range.

**You cannot weld with the equipment before you have selected the right operating voltage.** Reset of operation is automatic, but can take 0.5 min.

**AFTER THE LAMP HAS BEEN ILLUMINATED, TURN THE MAIN SWITCH INTO POSITION ZERO AND CHECK AND SELECT WITH VOLTAGE CHANGE-OVER SWITCH THE RIGHT MAINS VOLTAGE.**

## Local/remote control of welding current

You can control the welding current either from local control R11 of the machine or from a control which is connected to the remote control connector X13. When you use the remote control unit, the switch S12 should be in the remote control position.

Suitable remote control units: C 100C, and C 100D, see page 3

## Control for electrode dynamics

Master 2850 is an inverter power source, which due to its high control speed enables the DC+ and the DC- MMA welding even under difficult conditions.

With control potentiometer R12 for MMA dynamics you can change behaviour of arc in drop short circuits. Changing of dynamics can be seen as "coarseness" or "softness" of arc.

When control for dynamics is in the middle (control 5...6), the machine is suitable for universal use.

With coarse arc (control 7...8) you can weld with minimum currents of electrode, and then e.g. at position welding the sticking of electrode is prevented.

For cellulose covered electrodes is recommended a very coarse arc (control 9...10).

Soft arc (control 1...4) is used to produce a weld without spatter among others with stainless and base type filler materials.

## Meter equipment

Panel meter mounted into machine shows current or voltage values depending on position of meter selector S31 according to following:

**On no-load:** current set value or machine's no-load voltage

**In welding:** real welding current or machine's terminal voltage



**Meter doesn't show arc voltage but machine's terminal voltage.** Note that due to cable losses, arc voltage might be several volts lower than machine's terminal voltage with long welding cables.

## Operation of the cooling fan

The cooling fan of MASTER starts during welding and operates for some time after welding has been stopped.

## Electrodes to be welded

By the MASTER power sources you can use all electrodes designed for DC or AC welding within the current limits of the machine in question.

MASTER 2850 power source is suitable for carbon arc gouging and cutting according to its max. effect.

| REFERENCE MAX. ELECTRODE DIAMETERS / YIELD |  |
|--|--|
| Electrode type                             | Master 2850                            |
| Fe - rutile                                | ø 5 mm / 95 %                          |
| Fe - base                                  | ø 6 mm / 100 %                         |
| Fe - high-yield                            | ø 5 mm / 180 %<br>ø 4 mm / 250...270 % |
| Ss - rutile                                | ø 6 mm                                 |
| Ss - base                                  | ø 6 mm                                 |
| Ss - high-yield                            | ø 6 mm / 150 %                         |
| Hard facing by welding                     | ø 5 mm / 100 %                         |

## OPERATION SAFETY

**NEVER WATCH THE ARC WITHOUT A FACE SHIELD DESIGNED FOR ARC WELDING!**

THE ARC DAMAGES UNPROTECTED EYES!  
THE ARC BURNS UNPROTECTED SKIN!

**PROTECT YOURSELF AND THE SURROUNDINGS AGAINST THE ARC AND HOT SPRAY!**

**REMEMBER GENERAL FIRE SAFETY!**

PAY ATTENTION TO THE FIRE SAFETY REGULATIONS. WELDING IS ALWAYS CLASSIFIED AS A FIRE RISK OPERATION.

WELDING WHERE THERE IS FLAMMABLE OR EXPLOSIVE MATERIAL IS STRICTLY FORBIDDEN.

IF IT IS ESSENTIAL TO WELD IN SUCH AN AREA REMOVE INFLAMMABLE MATERIAL FROM THE IMMEDIATE VICINITY OF THE WELDING SITE.

FIRE EXTINGUISHERS MUST ALWAYS BE ON SITE WHERE WELDING IS TAKING PLACE.

**NOTE!** SPARKS MAY CAUSE IGNITION MANY HOURS AFTER COMPLETION OF WELDING.

**WATCH OUT FOR THE MAINS VOLTAGE!**

TAKE CARE OF THE CABLES - THE CONNECTION CABLE MUST NOT BE COMPRESSED, TOUCH SHARP EDGES OR HOT WORK PIECES.

FAULTY CABLES ARE ALWAYS A FIRE RISK AND HIGHLY DANGEROUS.

DO NOT LOCATE THE WELDING MACHINE ON WET SURFACES.

DO NOT TAKE THE WELDING MACHINE INSIDE THE WORK PIECE (I.E. IN CONTAINERS, CARS ETC.)

**ENSURE THAT NEITHER YOU NOR GAS BOTTLES OR ELECTRICAL EQUIPMENT ARE IN CONTACT WITH LIVE WIRES OR CONNECTIONS!**

DO NOT USE FAULTY WELDING CABLES.  
ISOLATE YOURSELF BY USING DRY AND NOT WORN OUT PROTECTIVE CLOTHES.

DO NOT WELD ON WET GROUND.  
DO NOT PLACE THE WELDING CABLES ON THE POWER SOURCE OR OTHER ELECTRICAL EQUIPMENT.

**WATCH OUT FOR THE WELDING FUMES!**

ENSURE THAT THERE IS SUFFICIENT VENTILATION.  
FOLLOW SPECIAL SAFETY MEASURES WHEN YOU WELD METALS WHICH CONTAIN LEAD, CADMIUM, ZINC, MERCURY OR BERYLLIUM.

**NOTE THE DANGER CAUSED BY SPECIAL WELDING JOBS!**

WATCH OUT FOR THE FIRE AND EXPLOSION DANGER WHEN WELDING CONTAINER TYPE WORK PIECES.

## MAINTENANCE

The amount of use and the working environment should be taken into consideration when planning the frequency of maintenance of the machine. Careful use and preventive maintenance will help to ensure trouble-free operation.

### Cables

Check the condition of welding and connection cables daily.  
**DO NOT USE FAULTY CABLES!**

Make sure that the mains connection cables in use are safe and according to laid down regulations.

**THE REPAIR OF MAINS CONNECTION CABLES SHOULD BE CARRIED OUT ONLY BY AN AUTHORISED ELECTRICIAN.**

### Power source

**NOTE!** DISCONNECT THE PLUG OF THE MACHINE FROM THE MAINS SOCKET AND WAIT APPROX. 2 MINUTES (CAPACITOR CHARGE) BEFORE REMOVING THE CASING PLATE

Check at least every half year:

- Electric connections of the machine - clean the oxidized parts and tighten the loosened ones

**NOTE!** YOU MUST KNOW CORRECT TENSION TORQUES BEFORE STARTING THE REPAIRATION OF THE JOINTS.

- Clean the inner parts of the machine from dust and dirt e.g. with a soft brush and vacuum cleaner.

**DO NOT USE COMPRESSED AIR, THERE IS A RISK THAT DIRT IS PACKED EVEN MORE TIGHTLY INTO GAPS OF COOLING PROFILES!**

**DO NOT USE PRESSURE WASHING DEVICE!**

**ONLY AUTHORISED ELECTRICIAN SHALL CARRY OUT REPAIRS TO THE MACHINES.**

### Regular maintenance

KEMPPI-SERVICE REPAIR SHOPS MAKE REGULAR MAINTENANCE ACCORDING TO AGREEMENT.

The major points in the maintenance procedure are listed as follows:

- Cleaning of the machine

- Checking and maintenance of the welding tools

- Checking of switches and potentiometers

- Checking of electric connections

- Checking of mains cable and plug

- Damaged parts or parts in bad connection are replaced by new ones

- Maintenance testing. Operation and performance values of the machine are checked, and adjusted when necessary by means of test equipment

## OPERATION DISTURBANCES

IN CASE OF PROBLEMS CONTACT THE KEMPPI WORKS IN LAHTI, FINLAND OR YOUR KEMPPI-DEALER.

Check the maintenance objects before the machine is sent to the service repair shop.

### Operation of the overload protection



**Yellow pilot lamp H12 of thermal protection** is lit when thermostat has operated due to overheating of machine.

The thermostat of machine will operate, if machine is continuously loaded over rated values or cooling air circulation is blocked.

COOLING FAN COOLS DOWN THE MACHINE AND WHEN THE PILOT LAMP GOES OFF THE MACHINE IS AUTOMATICALLY READY FOR WELDING.

### Control fuses

The fuse F11 on the front panel of the machine is as protection of remote control connection X13.

As protection of machine there is on control card 2 pc 2,0 A slow-blow cartridge fuses in the safety voltage circuit.

- Reason for burning of a fuse might be a damaged control card.

Use same type and rating of fuse which is marked beside the fuse adapter.

**DAMAGE CAUSED BY A WRONG TYPE FUSE, IS NOT COVERED BY THE GUARANTEE.**

# TERMS OF GUARANTEE

KEMPPI OY provides a guarantee for products manufactured and sold by them if defects in manufacture and materials occur. Guarantee repairs must be carried out only by an Authorized KEMPPI Service Agent. Packing, freight and insurance costs to be paid by third party. The guarantee is effected on the day of purchase. Verbal promises which do not comply with the terms of guarantee are not binding on guarantor.

## Limitations on guarantee

The following conditions are not covered under terms of guarantee: defects due to natural wear and tear, non-compliance with operating and maintenance instructions, connection to incorrect or faulty supply voltage (including voltage surges outside equipment spec.), incorrect gas pressure, overloading, transport or storage damage, fire or damage due to natural causes i.e. lightning or flooding.

This guarantee does not cover direct or indirect travelling costs, daily allowances or accomodation.

Note: Under the terms of the guarantee, welding torches and their consumables, feed, drive rollers and feeder guide tubes are not covered. Direct or indirect damage due to a defective product is not covered under the guarantee. The guarantee is void if changes are made to the product without approval of the manufacturer, or if repairs are carried out using non-approved spare parts.

The guarantee is also void if repairs are carried out by non-authorized agents.

## Guarantee period

The guarantee is valid for one year from date of purchase, provided that the machine is used for single-shift operation.

The guarantee period for double and treble shift operation is six months and four months respectively.

## Undertaking guarantee repairs

Guarantee defects must be informed to KEMPPI or authorised KEMPPI Service Agents within the guarantee period. Before any guarantee work is undertaken, the customer must provide proof of purchase and serial number of the equipment in order to validate the guarantee.

The parts replaced under the terms of guarantee remain the property of KEMPPI.

Following the guarantee repair, the guarantee of the machine or equipment, repaired or replaced, will be continued to the end of the original guarantee period.

# DEUTSCH

**MASTER 2850 ist eine Gleichstromquelle für das Stabelektroden-Schweißen, die für anspruchsvollen Fachmannsgebrauch konzipiert worden ist, und die für Anschlußspannungen von 3~ 230 V, 3~ 400 V und 3~ 460 V geeignet ist.**

**Die MASTER 2850-Stromquelle ist gegen die Überlastung mit Strombegrenzungen und Thermorelais geschützt. Über die Funktion des Thermorelais wird durch eine Signallampe an der Frontwand der Maschine informiert.**

**Die Stromquelle ist auch gegen momentane Über- und Unterspannungen sowie gegen die fehlgeählte Anschlußspannung geschützt, von der durch eine Signallampe an der Frontwand der Maschine gewarnt wird. Zum MASTER kann man als Zusatzgerät die Messereinheit MSD 1 sowie verschiedene Fernregleinheiten anschließen.**

## TECHNISCHE DATEN

| MASTER 2850                              |  |
|--|--|
| Anschlußspannung 3~, 50/60 Hz            | 220 V -10 % ... 240 V +6%<br>380 V -10 % ... 415 V +6%<br>440 V -10 % ... 480 V +6%  |
| Anschlußleistung 3~ 230 V                | 35 % ED 240 A / 10.0 kVA<br>60 % ED 185 A / 7.0 kVA<br>100 % ED 142 A / 5.0 kVA      |
| Anschlußleistung 3~ 400 V                | 35 % ED 280 A / 12.0 kVA<br>60 % ED 217 A / 8.0 kVA<br>100 % ED 165 A / 6.5 kVA      |
| Anschlußkabel / Sicherungen              | 4 x 6 mm <sup>2</sup> S<br>230 V 16 A träge<br>400 und 460 V 16 A träge              |
| Schweißstrombereich                      | 230 V 15 A / 20 V ... 240 A / 29.6 V<br>400 und 460 V 15 A / 20 V ... 280 A / 31.2 V |
| Max. Schweißspannung                     | 55 V / 280 A, 56 V / 166 A   |
| Die zu schweißenden Stabelektrodengrößen | ø 1.5 ... ca. 6 mm   |
| Einstellung für Schweißstrom             | Stufenlos  |
| Leerlaufspannung                         | 75 V DC  |
| Wirkungsgrad                             | 81 % (280 A / 31.2 V)  |
| Leistungsfaktor                          | 0,91 (280 A / 31.2 V)  |
| Leerlaufleistung                         | ca. 25 W   |
| Lagertemperaturbereich                   | -40 ... +60 °C   |
| Betriebstemperaturbereich                | -20 ... +40 °C   |
| Isolierstoffklasse                       | H (180 °C) / B (130 °C)  |
| Schutzart                                | IP 23C   |
| Maße:                                    | Länge 625 mm<br>Breite 215 mm<br>Höhe 445 mm   |
| Gewicht                                  | 31 kg  |
| Anschluß für Fernregelung                | 24 V AC, Sicherung 0.8 A träge   |
| Schweißkabelanschlüsse                   | DIX50  |
| Schutzgasanschluß                        | R 1/8 in Innengewinde  |

Die Anlage erfüllt die Konformitätsansprüche des CE-Zeichens.