

Safety Instructions

- EN** Safety instructions
- FI** Turvallisuusohje
- SV** Säkerhetsanvisningar
- NO** Sikkerhetsanvisninger
- DA** Sikkerhedsanvisninger
- DE** Sicherheitsvorschriften
- NL** Veiligheidsinstructies
- FR** Consignes de sécurité
- ES** Instrucciones de seguridad
- PL** Instrukcje bezpieczeństwa
- RU** Техника безопасности
- ZH** 安全手冊
- PT** Instruções de segurança
- IT** Istruzioni per la sicurezza

EN Safety Instructions

These instructions contain important information which either supplements or supersedes other instruction relating to this product. Read these instructions carefully before commencing operation.

Furthermore, the installation and use of the device must follow the instructions given in the international standard: IEC 60974-9 Arc welding equipment – Part 9: Installation and use.

Use of personal protective equipment

- The arc and its reflecting radiation damage unprotected eyes. Shield your eyes and face appropriately before you start welding or observe welding. Also note the different requirements for the darkness of the screen in the mask as the welding current changes.
- The arc radiation and spatters burn unprotected skin. Always wear protective gloves, clothing and footwear when welding.
- Always wear hearing protection if the ambient noise level exceeds the allowable limit (e.g., 85 dB).

General operating safety

- Exercise caution when handling parts heated in welding. For example, the tip of the welding torch, the end of the welding rod and the work piece will heat to a burning temperature.
- Never carry the device or suspend it by the carrying strap during welding.
- Do not expose the machine to high temperatures, as this may cause damage to the machine.
- Keep the torch cable and earthing cable as close to each other as possible throughout their length. Straighten any loops in the cables. This minimises your exposure to harmful magnetic fields, which may interfere with a pacemaker, for example.
- Do not wrap the cables around the body.
- In environments classified as dangerous, only use S-marked welding devices with a safe idle voltage level. These work environments include, for example, humid, hot or small spaces where the user may be directly exposed to the surrounding conductive materials.
- Do not use arc welding equipment for pipe thawing.

Spatter and fire safety

- Welding is always classified as hot work, so pay attention to fire safety regulations during welding and after it.
- Remember that fire can break out from sparks even several hours after the welding work is completed.
- Protect the environment from welding spatter. Remove flammable materials, such as flammable fluids, from the welding vicinity and supply the welding site with adequate fire fighting equipment.
- In special welding jobs, be prepared for hazards such as fire or explosion when welding container-type work pieces.
- Never direct the spark spray or cutting spray of a grinder toward the welding machine or flammable materials.
- Beware of hot objects or spatter falling on the machine when working above the machine.
- Welding in flammable or explosive sites is absolutely forbidden.

General electric safety

- Only connect the welding machine to an earthed electric network.
- Note the recommended mains fuse size.
- Do not take the welding machine inside a container, vehicle or similar work piece.

- Do not place the welding machine on a wet surface and do not work on a wet surface.
- Do not allow the mains cable to be directly exposed to water.
- Ensure cables or welding torches are not squashed by heavy objects and that they are not exposed to sharp edges or a hot work piece.
- Make sure that faulty and damaged welding torches are changed immediately as they can be lethal and may cause electrocution or fire.
- Remember that the cable, plugs and other electric devices may be installed or replaced only by an electrical contractor or engineer authorised to perform such operations.
- Turn off the welding machine when it is not in use.
- In the case of abnormal behaviour of the equipment, such as smoke coming from the machine during normal use, take the machine to a Kemppi service representative for inspection.

Welding power circuit

- Insulate yourself from the welding circuit by using dry and undamaged protective clothing.
- Never touch the work piece and welding rod, welding wire, welding electrode or contact tip at the same time.
- Do not put the welding torch or ground cable on the welding machine or other electric equipment.
- Turn off the machine from the main switch always before you need to touch any components of the electric circuit, for example when replacing the electrode or contact tip or moving the earth return clamp.

Welding fumes

- Ensure proper ventilation and avoid inhaling the fumes.
- Ensure sufficient supply of fresh air, particularly in closed spaces. You can also ensure the supply of clean and sufficient breathing air by using a fresh-air mask.
- Take extra precautions when working on metals or surface-treated materials containing lead, cadmium, zinc, mercury or beryllium.

Transportation, lifting and suspension

- Pay attention to correct working position when lifting a heavy device – risk of injury to the back.
- Never pull or lift the machine by the welding torch or other cables. Always use the lift points or handles designed for that purpose.
- Only use a transport unit designed for the equipment.
- Try to transport the machine in an upright position, if possible.
- Never lift a gas cylinder and the welding machine at the same time. There are separate provisions later for gas cylinder transportation.
- Never use a welding machine when suspended unless the suspension device has been designed and approved for that particular purpose.
- Do not exceed the maximum allowed load of suspension beams or the transportation trolley of welding equipment.
- It is recommended that the wire coil be removed during lifting or transportation.

Environment

- The welding power source is not suitable for use in rain or snow, although it can be used and stored outdoors. Protect the equipment against rain and strong sunlight.
- Always store the machine in a dry and clean space.
- Protect the machine from sand and dust during use and in storage.
- The recommended operating temperature range is -20 to +40 °C. The machine's operation efficiency decreases and it becomes more prone to damage if used in temperatures in excess of 40 °C.

- Place the machine so that it is not exposed to hot surfaces, sparks or spatter.
- Make sure the airflow to and from the machine is unrestricted.
- Always use the machine in an upright position only.
- EMC classification of this product is class A in accordance with electromagnetic compatibility standards CISPR 11 and IEC 60974-10, and therefore the product is designed to be used in industrial environment only.
WARNING: This class A equipment is not intended for use in residential locations where the electrical power is provided by a public low-voltage supply system. In those locations it may be difficult to ensure the electromagnetic compatibility due to conducted and radiated disturbances.
- Arc welding equipment always cause electromagnetic disturbance. To minimize the harmful effects of this, use the equipment strictly according to the operating manual and other recommendations.

Gas cylinders and regulators

- Adhere to the instructions for handling gas cylinders and regulators.
- Make sure that gas cylinders are used and stored in properly ventilated spaces. A leaking gas cylinder may replace the oxygen in the inhaled air, causing suffocation.
- Before use, make sure that the gas cylinder contains gas suitable for the intended purpose.
- Always fix the gas cylinder securely in an upright position, against a cylinder wall rack or purpose-made cylinder cart.
- Never move a gas cylinder when the flow adjuster is in place. Put the valve cover in place during transportation.
- Close the cylinder valve after use.

Circuit diagram and spare part lists

If the circuit diagram and the spare parts list are not included in your delivery package, please request them from your local Kemppi service representative. For more information, please visit www.kemppi.com.

Disclaimer

While every effort has been made to ensure that the information contained in this guide is accurate and complete, no liability can be accepted for any errors or omissions. Kemppi reserves the right to change the specification of the product described at any time without prior notice. Do not copy, record, reproduce or transmit the contents of this guide without prior permission from Kemppi.

FI Turvallisuusohjeita

Tässä ohjeessa on tärkeää tietoa, joka ristiriitatapauksissa korvaa erillisessä käyttöohjeessa olevat kohdat. Lue tämä ohje huolellisesti ennen laitteen käyttöönottoa.

Laitteen asennuksessa ja käytössä pitää noudattaa lisäksi kansainvälisessä standardissa annettuja ohjeita: IEC 60974-9 Arc welding equipment – Part 9: Installation and use.

Suojavarusteiden käyttö

- Valokaari ja siitä heijastuva säteily vahingoittavat suojaamattomia silmiä. Suojaa silmäsi ja kasvosi hitsausmaskilla, ennen kuin aloitat hitsauksen tai kun tarkkailet hitsausta. Huomioi myös hitsauslasin tummuuden muutostarve hitsausvirran muuttuessa.
- Valokaaren säteily ja hitsausroiskeet aiheuttavat palovammoja suojaamattomalle iholle, joten käytä aina hitsatessasi suojäkäsineitä, -vaatetusta ja -jalkineita.

www.kemppi.com

1902000
1211

Kemppi Oy
Lahti, FINLAND
www.kemppi.com

