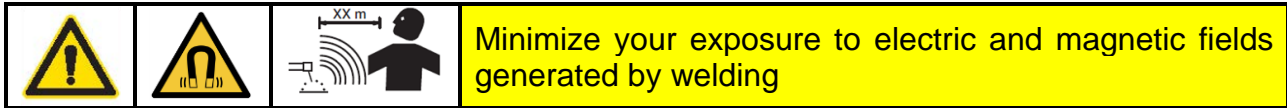


ELECTRIC AND MAGNETIC FIELDS (EMF) IN WELDING



INTRODUCTION

In the welding operation, the high electric currents generate local electric and magnetic fields (EMF) around the welding circuit and in the area of the welding equipment. In the case of human exposure, if the product is used properly and the recommended distances are observed, the device complies with the required limit values.

IS EMF HARMFUL?

According to the current state of knowledge, based on scientifically proven low-dose effects, no health-risks or long-term effects are to be expected from EMF exposure.

PARTICULAR ATTENTION SHOULD BE PAID TO:

- Neighboring people (also separated by walls) or visitors are also to be considered about possible hazard potentials and, if necessary, instructed.
- Wearers of implants and jewelry (prostheses, metal parts in and on the body) as well as active medical devices (pacemakers, hearing aids, etc.) must consult the responsible doctor regarding possible health risks.

HOW DO I MINIMIZE EXPOSURE?

- To avoid of large-area conductor loops with the welding cable and hose package.
 - Bundle the welding cable (hose package) and work cable and secure them with tape
 - Both cables must run on the same side of the body
 - Connect the work cable as close as possible to the area to be welded on the workpiece
- Maintain the longest possible distances to the welding cables and hose packages:
 - Do not work or remain in the immediate vicinity of the welding power source
 - Do not carry the welding power source during operation
 - Do not route the cables directly on the body
 - Do not place cables over the shoulder or on the thighs
 - Do not wrap cables around arm or body
- Notes and recommendations can be found in EN IEC 60974-9

INFORMATION SOURCES

Further information on the subject of EMF and helpful tips for practical application can be found on the websites of the responsible country-specific authorities and offices for employee protection.

European Agency for Safety and Health at Work (EU-OSHA).
Directive 2013/35/EU – Electromagnetic Fields, available from EU- OSHA;
(website: www.osha.europa.eu/en)

Non-binding guide to good practice for implementing Directive 2013/35/EU Electromagnetic Fields
(website: <https://osha.europa.eu/en/legislation/guidelines/non-binding-guide-good-practice-implementing-directive-201335eu-electromagnetic-fields>)

International Commission on Non-Ionizing Radiation Protection (ICNIRP).
Low Frequency Guidelines, available from ICNIRP; (website: www.icnirp.org)

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