



IEC/TC OR SC: IEC TC26	SECRETARIAT: Austria	DATE: 2021-04-09
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Please ensure this form is annexed to the Report to the Standardization Management Board if it has been prepared during a meeting or sent to the Central Office promptly after its contents have been agreed by the committee.

A. STATE TITLE AND SCOPE OF TC

Electric welding

To prepare standards for electrical safety, EMC and EMF matters related to the construction, installation and use of equipment for electric welding and allied processes in both normal and adverse welding environments, taking into account all safety aspects for protection against electrical and mechanical hazards for professional and non professional use and all aspects to protect the environment. All electric welding processes are covered except electromagnetic processing.

B. MANAGEMENT STRUCTURE OF THE TC

Actual structure:

TC 26 - Electric welding

TC 26/WG 1 - Safety requirements for electric welding equipment

TC 26/WG 5 - EMC and EMF requirements for electric welding equipment

C. BUSINESS ENVIRONMENT

- a) Strong competition between the manufacturers world wide.
 - b) The input of the experts from ISO and IEC will result in standards that will be accepted by both organisations and will normally become harmonised European Standards as basis for CE-marking. The development of the IEC 60974 series in the field of arc welding, IEC 62135 series in the field of resistance welding equipment and IEC 62822 series in the area of EMF has been achieved by involvement of representatives from: ANSI; AWS; NEMA; UL; CSA and JWES. The interest of Canada, Japan, Mexico, China, Australia and USA to use international standards has been accomplished. Other countries worldwide are encouraged to adopt this IEC 60974 series.
 - c) Co-operation between IEC TC 26 and CISPR/B and experts from CENELEC/TC26 and TC 210 leads to consideration of existing problems and results e.g. in 60974-10, 62135-2 and CISPR 11.
 - d) The EU Directive on electromagnetic fields was published in June 2013. Hence, exposure limits exist in the European Economic Area. By parallel voting with CENELEC, the IEC62822-series of standards provides data to show compliance to relevant regulations.
- b) Increasing industry demands due to IoT and Industry 4.0 in regard to communication result in collaboration with ETSI. This effort will assist in our product compliance with EC-Radio Equipment Directive.
 - c) The EU-Regulation on Eco-design-requirements for welding equipment was published in October 2019. This demands adoption of our IEC 60974 series.

- Increasing use of computer controlled equipment will improve the welding process.
- The hereby achieved improved procedures will result in high quality and less waste output.
- Fumes and spatter will be reduced.
- A reduction in energy consumption achieved by the use of inverters will not reduce work efficiency.
- Work safety and health conditions will be highly improved.

D. MARKET DEMAND

- Members: manufacturers of equipment, users and authorities, e.g. shipyards, nuclear plants, car and other industries, they are represented on national basis through national delegates.
- Authorities should be more represented.
- Wide use, increasing; competing standards decreasing, e.g. in US, CA, CN, JP, AU.
- Need for development, see projects.
- Because of the principle of arc and resistance welding there is a need for specific assessment requirements, e.g. EMC and EMF standards.
- Based on EU Eco-Design-requirements for welding equipment adoption of our standards is needed.

The JISC (Japan), ANSI (US), ANCE (Mexico) and CSA (Canada) support the adoption of standards prepared by TC 26.

E. SUSTAINABLE DEVELOPMENT GOALS

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| <input type="checkbox"/> GOAL 1: No Poverty | <input type="checkbox"/> GOAL 10: Reduced Inequality |
| <input type="checkbox"/> GOAL 2: Zero Hunger | <input type="checkbox"/> GOAL 11: Sustainable Cities and Communities |
| <input type="checkbox"/> GOAL 3: Good Health and Well-being | <input checked="" type="checkbox"/> GOAL 12: Responsible Consumption & Production |
| <input type="checkbox"/> GOAL 4: Quality Education | <input type="checkbox"/> GOAL 13: Climate Action |
| <input type="checkbox"/> GOAL 5: Gender Equality | <input type="checkbox"/> GOAL 14: Life Below Water |
| <input type="checkbox"/> GOAL 6: Clean Water and Sanitation | <input type="checkbox"/> GOAL 15: Life on Land |
| <input type="checkbox"/> GOAL 7: Affordable and Clean Energy | <input type="checkbox"/> GOAL 16: Peace, Justice Strong Institutions |
| <input checked="" type="checkbox"/> GOAL 8: Decent Work & Economic Growth | <input type="checkbox"/> GOAL 17: Partnerships to achieve the Goals |
| <input type="checkbox"/> GOAL 9: Industry, Innovation & Infrastructure | |

GOAL 8: IEC60974-4, IEC60974-9, IEC 62822-x
GOAL 12: IEC60974-1

F. TRENDS IN TECHNOLOGY AND IN THE MARKET

Process controlled equipment to optimize the weld quality and efficiency of welding power sources.

Less costly but reliable equipment. Preprogrammed or program-selection desired. More automation (e.g. Cobot) applied.

G. SYSTEMS APPROACH ASPECTS (SEE DIRECTIVES PART 1 ANNEX SP)

IEC TC1	Terminology
IEC TC27	Industrial electroheating
IEC TC77A	EMC - Low frequency phenomena
IEC SC3C	Graphical symbols for use on equipment
CSIPR/B	Interference relating to industrial, scientific and medical radio-frequency apparatus, to other (heavy)industrial equipment to overhead power lines, to high voltage equipment and to electric traction
CISPR/H	Limits for the protection of radio frequencies
ISO/TC44	Welding and allied processes
TC44/SC6	Resistance welding and allied mechanical joining
TC44/SC9	Health and safety
TC44/SC10	Quality management in the field of welding
IIW	International Institute of Welding

H. CONFORMITY ASSESSMENT

None

I. 3-5 YEAR PROJECTED STRATEGIC OBJECTIVES, ACTIONS, TARGET DATES

STRATEGIC OBJECTIVES 3-5 YEARS	ACTIONS TO SUPPORT THE STRATEGIC OBJECTIVES	TARGET DATE(S) TO COMPLETE THE ACTIONS
Energy efficiency and circular economy	Modify IEC60974-1	2021
Radio communication	Implementation of radio communication requirements	2023

Note: The progress on the actions should be reported in the RSMB.