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ENVIRONMENTAL FRIENDLY WELDING - AN EVOLUTION FROM 3D (DIRTY, DUSTY, DANGEROUS) TO 3C (COOL, CLEVER AND CLEAN)

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Abstract

The paper approaches the environment issue in the context of welding fabrication processes. The introduction presents, synthetically, the place and dimension of welding in the manufacturing industry. Negative aspects regarding the image of welding due to the impact on the environment are identified. The driving factors and the main development trends of environmental friendly welding processes are analyzed. An action program to change the image of welding from the present "3 D – Dirty, Dusty and Dangerous" - image to a new "3C – Cool, Clever and Clean" – image is presented. The action program is based on the ecological approach of the entire life cycle of welded products. Further, the structure and the main elements of an European integrated quality, environment, health and safety management system are described. This system can be certified according the scheme developed by the European Welding Federation.

Key words: certification, environmental friendly welding, environment management system, welding development trends, welding environmental impact