Commission Regulation (EU) 2019/1784 of 1 October 2019 laying down ecodesign requirements for welding equipment pursuant to Directive 2009/125/EC of the European Parliament and of the Council (Text with EEA relevance)

COMMISSION REGULATION (EU) 2019/1784

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THE EUROPEAN COMMISSION,

Having regard to Article 114 of the Treaty on the Functioning of the European Union,

Having regard to Directive 2009/125/EC of the European Parliament and of the Council of 21 October 2009 establishing a framework for the setting of ecodesign requirements for energy-related products[(1)], and in particular Article 15(1) thereof,

Whereas:

(1) Pursuant to Directive 2009/125/EC the Commission should set ecodesign requirements for energy-related products which account for significant volumes of sales and trade in the Union and which have a significant environmental impact and present significant potential for improvement through design in terms of their environmental impact, without entailing excessive costs.

(2) The Communication from the Commission COM(2016) 773 final[(2)] (ecodesign working plan) established by the Commission in application of Article 16(1) of Directive 2009/125/EC sets out the working priorities under the ecodesign and energy labelling framework for the period 2016-2019. The ecodesign working plan identifies the energy-related product groups to be considered as priorities for the undertaking of preparatory studies and eventual adoption of implementing measures, as well as the review of the current Regulations.

(3) Measures from the ecodesign working plan have an estimated potential to deliver a total in excess of 260 TWh of annual final energy savings in 2030, which is equivalent to reducing greenhouse gas emissions by approximately 100 million tonnes per year in 2030.

(4) The Commission has carried out a preparatory study to analyse the technical, environmental and economic aspects of welding equipment and machine tool products for industrial purposes[(3)]. Welding equipment subject to the study comprises arc and plasma welding equipment for metals, designed and typically used for industrial and professional use[(4)]. It has been considered that welding equipment exclusively powered with engines or batteries should not be regulated.

Changes to legislation: *There are currently no known outstanding effects for the Commission Regulation (EU) 2019/1784. (See end of Document for details)*

(5) The preparatory study was conducted in close cooperation with stakeholders and interested parties in the EU and elsewhere. The results were made public and presented to the Consultation Forum established under Article 18 of Directive 2009/125/EC.

(6) The environmental aspects of welding equipment that were identified as significant for the purposes of this Regulation are:

(a) energy consumption in the use phase, including when the products are in 'idle' mode;

(b) resource efficiency aspects.

(7) Annual final energy consumption directly related to welding equipment is expected to be in excess of 6 TWh in 2030, corresponding to 2,4 million tonnes of CO_2 equivalent, excluding the energy used in making the associated consumables (such as shielding gases, welding wire). The preparatory study showed that energy consumption in the use phase and various idle or standby modes can be reduced significantly.

(8) By 2030, it is estimated that the ecodesign requirements in this Regulation will result in annual energy savings of 1,09 TWh, corresponding to total annual savings of about 0,27 Mt CO_2 equivalent.

(9) The Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions COM(2015) 614 final[(5)] (circular economy action plan) and the ecodesign working plan underline the importance of using the ecodesign framework to support the move towards a more resource efficient and circular economy. Directive 2012/19/EU of the European Parliament and of the Council[(6)] refers to Directive 2009/125/EC and indicates that ecodesign requirements should facilitate the re-use, dismantling and recovery of waste electrical and electronic equipment (WEEE) by tackling the issues upstream. Accordingly this Regulation lays down requirements on non-energy-related aspects, including:

(a) disassembly;

(b) reparability;

(c) critical raw materials.

(10) In addition, it requires that welding equipment be accompanied by information on the use of shielding gases during welding and the quantities of welding wire or filler material used.

(11) The energy and resource consumption of welding equipment could be reduced by applying existing non-proprietary techniques without an increase in the combined costs of purchasing and operation.

(12) The preparatory study has concluded that the proposed ecodesign requirements do not affect the functionality or affordability of welding equipment from the end-user's perspective and do not negatively affect health, safety or the environment.

(13) The timing for the introduction of ecodesign requirements allows manufacturers to redesign the products covered by this Regulation. It takes account of the impact on costs for manufacturers, in particular the large proportion of small and medium-sized enterprises in the welding equipment manufacturing sector in the EU, while ensuring the timely achievement of the objectives of this Regulation.

(14) Product parameters should be measured and calculated using reliable, accurate and reproducible methods that take into account recognised state-of-the-art measurement and calculation techniques, including, where available, harmonised standards adopted by the European standardisation organisations following a request from the Commission, in accordance with Regulation (EU) No 1025/2012 of the European Parliament and of the Council[7].

(15) In accordance with Article 8 of Directive 2009/125/EC, this Regulation should specify which conformity assessment procedures apply.

(16) To facilitate compliance checks, manufacturers should provide the information contained in the technical documentation referred to in Annexes IV and V to Directive 2009/125/EC where that information relates to the requirements laid down in this Regulation.

(17) In addition to the legally binding requirements laid down in this Regulation, benchmarks for best available techniques should be identified to make information on the lifecycle environmental performance of products subject to this Regulation widely available and easily accessible, in accordance with part 3(2) of Annex I to Directive 2009/125/EC.

(18) In order to improve the effectiveness and credibility of this Regulation and to protect consumers, products that automatically alter their performance in test conditions to improve the declared parameters should be prohibited.

(19) A review of this Regulation should assess the appropriateness and effectiveness of its provisions in achieving its goals. The timing of the review should allow for all provisions to be implemented and show an effect on the market.

(20) In order to improve the operation of the internal market and the environmental performance of welding equipment throughout the Union, ecodesign requirements should harmonise the relevant energy consumption and resource efficiency requirements. The requirements should be revised not later than 2024 in the light of technological evolution, in order to take advantage of further possibilities of improving the equipment’s performance and the operation of the internal market.

(21) The measures provided for in this Regulation were discussed by the Consultation Forum referred to in Article 18 of Directive 2009/125/EC.

(22) The measures provided for in this Regulation are in accordance with the opinion of the Committee established under Article 19(1) of Directive 2009/125/EC,

HAS ADOPTED THIS REGULATION:

Changes to legislation: *There are currently no known outstanding effects for the Commission Regulation (EU) 2019/1784. (See end of Document for details)*

Article 1

Subject matter and scope

1 This Regulation establishes ecodesign requirements for the placing on the market or the putting into service of electrical mains-operated welding equipment.

2 This Regulation shall apply to welding equipment using one or more of the following welding and allied processes:

a manual metal arc welding;
b shielded metal arc welding;
c self-shielded flux-cored welding;
d flux cored arc welding;
e metal active gas and metal inert gas welding;
f tungsten inert gas welding;
g plasma arc cutting.

3 This Regulation shall not apply to welding equipment using the following welding and allied processes:

a submerged arc welding;
b limited-duty arc welding;
c resistance welding;
d stud welding.

Article 2

Definitions

For the purposes of this Regulation, the following definitions shall apply:

1. ‘welding equipment’ means products that are used for manual, automated or semi-automated welding, brazing, soldering or cutting (or all of the above) via arc welding and allied processes, and that is stationary or transportable, and consists of linked parts or components, at least one of which moves and which are joined together to produce coalescence of metals by heating them to the welding temperature (with or without the application of pressure) or by the application of pressure alone, with or without the use of filler metal, and with or without the use of shielding gas(es), using appropriate tools and techniques, resulting in a product of defined geometry;

2. ‘manual metal arc welding’ means an arc-welding process with a coated electrode where the operator’s hand controls the travel speed of the welding operation and the rate at which the electrode is fed into the electric arc;

3. ‘shielded metal arc welding’ means an arc-welding process whereby coalescence is produced by heating with an electric arc between a covered metal electrode and the work-piece and work area. Shielding is obtained from decomposition of the electrode covering. Pressure is not used and filler metal is obtained from the electrode;

4. ‘self-shielded flux-cored welding’ means a wire welding process in which a continuous hollow-wire electrode is fed through the welding gun into the weld joint without the need to use an external shielding gas to protect the weld pool from

contamination. Instead of an external shielding gas, a flux compound within the hollow wire reacts with the welding arc to form a gas that protects the weld pool;

5. ‘flux cored arc welding’ means a welding process that uses composite tubular filler metal electrodes consisting of a metal sheath and a core of various powdered materials, producing an extensive slag cover on the face of a weld bead. The use of external shield gas(es) may or may not be required;

6. ‘metal inert gas welding’ means a gas metal arc welding process whereby coalescence is produced by heating with an arc between a continuous filler metal (consumable) electrode and the workpiece area. Shielding is obtained entirely from an externally supplied gas, or gas mixture, that is inert;

7. ‘metal active gas welding’ means a gas metal arc welding process whereby coalescence is produced by heating with an arc between a continuous filler metal (consumable) electrode and the workpiece area. Shielding is obtained entirely from an externally supplied gas, or gas mixture, that is active;

8. ‘tungsten inert gas welding’ means an arc welding process whereby coalescence is produced by heating with an arc between a single tungsten (non-consumable) electrode and the workpiece area. Shielding is obtained from a gas or gas mixture. Pressure may or may not be used and filler metal may or may not be used;

9. ‘plasma arc cutting’ means an arc cutting process that uses a constricted arc and removes the molten metal in a high velocity jet of ionised gas (plasma gas) issuing from the constricting orifice. Plasma arc cutting is a direct-current electrode-negative process;

10. ‘plasma gas’ (also referred to as ‘orifice gas’ or ‘cutting gas’) means a gas directed into the torch to surround the electrode, which becomes ionised by the arc to form a plasma and issues from the torch nozzle as the plasma jet;

11. ‘shielding gas’ (also referred to as ‘secondary gas’) means a gas that does not pass through the orifice of the nozzle, but instead passes around the nozzle and forms a shield around the electric arc;

12. ‘submerged arc welding’ means an arc welding process that uses an arc or arcs exceeding 600 amperes between a bare metal electrode or electrodes and the weld pool. The arc and molten metal are shielded by a blanket of granular flux on the workpieces. No pressure is applied and the process uses filler metal from the electrode and sometimes from a supplementary source such as a welding rod, flux or metal granules;

13. ‘limited-duty arc welding’ means arc welding and allied processes that are not for industrial and professional applications and that:

    (a) use single-phase public low-voltage input;

    (b) if engine driven, do not exceed an output power of 7,5 kVA;

    (c) do not require arc-striking and stabilising devices, liquid cooling systems or gas consoles for operation;

14. ‘resistance welding’ means a thermo-electrical process in which heat is generated at the interface of the parts to be joined by passing an electrical current through the parts for a precisely controlled time and under a controlled pressure. No consumables such as welding rods or shielding gases are required;