UL 62841-3-1000

Outline of Investigation for Electric Motor-Operated Hand-Held Tools, Transportable Tools And Lawn And Garden Machinery – Safety – Part 3-1000: Particular Requirements For Transportable Laser Engravers

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Summary of Topics

The First Issue of the Outline of Investigation for Electric Motor-Operated Hand-Held Tools, Transportable Tools And Lawn And Garden Machinery – Safety – Part 3-1000: Particular Requirements For Transportable Laser Engravers, which covers transportable CO_2 laser engravers with a laser power not exceeding 60 watts intended to engrave, ablate, burn, color, cut and perform similar processes on material samples inserted into the equipment.

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Electric Motor-Operated Hand-Held Tools, Transportable Tools And Lawn And Garden Machinery – Safety – Part 3-1000: Particular Requirements For Transportable Laser Engravers

This standard is to be used in conjunction with the First edition of UL 62841-1.

This standard, where stated, amends the requirements of UL 62841-1. Where a particular subclause of UL 62841-1 is not mentioned in UL 62841-3-1000, the UL 62841-1 subclause applies.

1 Scope

This clause of Part 1 is applicable, except as follows:

Addition:

This part of UL 62841 applies to transportable CO_2 **laser engravers** with a laser power not exceeding 60 watts intended to cut, incise a design, engrave, ablate, burn, color, and perform similar processes on material samples inserted into the equipment.

This standard does not apply to fiber **laser engravers** and **laser engravers** intended for industrial use.

2 Normative references

This clause of Part 1 is applicable, except as follows:

Addition:

IEC 60695-11-20:1999
Fire hazard testing – Part 11-20: Test flames 500 W flame test methods

(CFR) Title 21, Part 1040
US Code of Federal Regulations

3 Terms and definitions

This clause of Part 1 is applicable, except as follows:

3.101 **air assist:** a constant stream of compressed air across the engraving or cutting surface at the point of burn to remove heat and combustible gases from the surface of the material and helps prevent the formation of flames.

3.102 **exhaust system:** a method of removing laser out-gas fumes and odours by a ventilation system connected to the **laser engraver**

3.103 **laser engraver:** tool employing a high intensity beam of light that is intended to cut, incise a design, engrave, ablate, burn, color, and perform similar processes on a variety of material inserted into the equipment.

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