

Welding with Resistance Welding Equipment

Self-Inspection Checklist



Optional Information

Name of School:
Date of Inspection:
Career-Technical program/course/room:
Signature of inspector:

Guidelines:

This checklist covers regulations issued by the U.S. Department of Labor, Occupational Safety and Health Administration (OSHA) under the general industry standards 29 CFR 1910.255 and 29 CFR 1910.306. It applies to the use of resistance welding equipment. This checklist must be used with the Welding, Cutting, and Brazing–General Requirements checklist. The regulations cited apply only to private employers and their employees, unless adopted by a State agency and applied to other groups such as public employees. A yes answer to a question indicates that this portion of the inspection complies with the OSHA, and U.S. Environmental Protection Agency (EPA) standard, or with a nonregulatory recommendation.

General		
1	Is all resistance welding equipment installed by a qualified electrician? [29 CFR 1910.255(a)(1)]	
2	Is a disconnecting switch, circuit breaker, or circuit interrupter located at or near each resistance welding machine that can isolate the machine from the supply circuit? [29 CFR 1910.255(a)(1) and 29 CFR 1910.306(d)(2)]	
3	Do ignition tubes that are used in resistance welding equipment have a thermal protection switch? [29 CFR 1910.255(a)(2)]	
4	Are employees and students trained and judged competent to operate resistance-welding equipment? [29 CFR 1910.255(a)(3)]	
5	Are controls of automatic or air and hydraulic clamps arranged or guarded to prevent unintentional operator activation? [29 CFR 1910.255(a)(4)]	



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National Institute for Occupational Safety and Health

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Spot- and Seam-Welding Machines (nonportable)

6	Are external weld initiation control circuits of nonportable spot- and seam-welding machines limited to 120 volts? [29 CFR 1910.255(b)(1)]
7	Are welding machine cabinet doors electrically interlocked to interrupt power, short circuit all capacitors, or otherwise prevent access to live electrical equipment? [29 CFR 1910.255(b)(2) and (3)]
8	Are press welding machines effectively guarded to prevent operator hand injury? [29 CFR 1910.255(b)(4)]
9	Are point-of-operation shield guards and fire-resistant curtains installed to protect students, employees, or passers-by from flying sparks? [29 CFR 1910.255(b)(5)]
10	Are foot switches guarded to prevent unintentional machine operation? [29 CFR 1910.255(b)(6)]
11	Are two or more safety emergency stop buttons provided on all special multispot welding machines, including two-post and four-post weld presses? [29 CFR 1910.255(b)(7)]
12	Are secondary welding transformers that are used in multispot, projection, and seam welding machines grounded where possible? [29 CFR 1910.255(b)(9)]

Portable Welding Machines

13	Are portable welding guns suitably counterbalanced for supporting the guns (including cables), unless the design of the gun or fixture makes counterbalancing impractical or unnecessary? [29 CFR 1910.255(c)(1)]
14	Are portable welding machines that are suspended from overhead structures equipped with safety chains or cables? [29 CFR 1910.255(c)(2)]
15	Are initiating switches guarded to prevent unintentional operator activation? [29 CFR 1910.255(c)(4)]
16	Does the movable holder, where it enters the gun frame, have sufficient clearance to prevent fingers from being cut when they are placed on the operating movable holder? [29 CFR 1910.255(c)(5)]
17	Are the secondary and case of all portable welding transformers grounded? [29 CFR 1910.255(c)(6)]

Flash-Welding Equipment

18	Are flash-welding machines equipped with a hood to control flying flash? [29 CFR 1910.255(d)(1)]
19	Are fire-resistant curtains or suitable shields set up around the machine to protect the operators of nearby equipment? [29 CFR 1910.255(d)(2)]
20	Are fire-resistant curtains or suitable shields set up around the machine in a manner that does not hamper the operator's movements? [29 CFR 1910.255(d)(2)]
21	Are periodic inspections of welding equipment performed by qualified maintenance personnel? [29 CFR 1910.255(e)]
22	Is a certification record of periodically inspected welding equipment maintained? [29 CFR 1910.255(e)]
23	Does the certification record of periodically inspected welding equipment include the date of inspection, signature of the inspector, and equipment serial number or other identifier? [29 CFR 1910.255(e)]

Maintenance

24	Are welding machine operators required to report any equipment defect to his or her supervisor? [29 CFR 1910.255(e)]
25	Is defective equipment taken out of service until repairs have been completed? [29 CFR 1910.255(e)]