

# MACHINERY SAFETY STANDARDS

## US STANDARDS

In the United States, the protection of workers is the primary concern of OSHA, the Occupational Health and Safety Administration, a division of the Department of Labor. OSHA's role is to assure safe and healthful working conditions for working men and women; by authorizing enforcement of the standards developed under the Occupational Safety & Health Act; by assisting and encouraging the States in their efforts to assure safe and healthful working conditions; by providing for research, information, education, and training in the field of occupational safety and health. OSHA is the primary regulatory agency for safety and health, setting national standards and providing for the enforcement thereof. OSHA also relies on consensus standards. These are guidelines and standards created by standards-making organizations, trade associations, and third party testing facilities. In the machinery industry, these include: American National Standards Institute (ANSI), Robotics Industry of America (RIA), Instrument Society of America (ISA), National Fire Prevention Association (NFPA), Underwriters Laboratories, Inc. (UL).

### State OSH Standards

Section 18 of the Occupational Safety and Health Act of 1970 (the OSH Act) encourages states to develop and operate their own safety and health programs in the workplace. OSHA approves and monitors State Plans.

The following states have adopted safety and health standards:

Alaska  
Arizona  
California  
Hawaii  
Indiana  
Iowa  
Kentucky  
Maryland  
Michigan  
Minnesota  
Nevada  
New Mexico  
North Carolina  
Oregon  
South Carolina  
Tennessee  
Utah  
Vermont  
Virginia  
Washington  
Wyoming  
  
Puerto Rico

For more information on state plans go to:  
[www.osha.gov/stateplans](http://www.osha.gov/stateplans)

## Selected US Standards and Guidelines

OSHA 29 CFR 1910.212  
General Requirements for (Guarding of) All Machines

OSHA 29 CFR 1910.217  
(Guarding of) Mechanical Power Presses

ISA S84.01  
Safety Instrumented Systems

ANSI B11.1  
Machine Tools – Mechanical Power Presses – Safety Requirements for Construction, Care, and Use of

ANSI B11.2  
Hydraulic Power Presses – Safety Requirements for Construction, Care, and Use of

ANSI B11.3  
Power Press Brakes – Safety Requirements for Construction, Care, and Use of

ANSI B11.4  
Shears – Safety Requirements for Construction, Care, and Use of

ANSI B11.5  
Machine Tools – Iron Workers – Safety Requirements for Construction, Care, and Use of

ANSI B11.6  
Lathes – Safety Requirements for Construction, Care, and Use of

ANSI B11.7  
Cold Headers & Cold Formers – Safety Requirements for Construction, Care, and Use of

ANSI B11.8  
Drilling, Milling, and Boring Machines – Safety Requirements for Construction, Care, and Use of

ANSI B11.9  
Grinding Machines – Safety Requirements for Construction, Care, and Use of

ANSI B11.10  
Metal Sawing Machines – Safety Requirements for Construction, Care, and Use of

ANSI B11.11  
Gear Cutting Machines – Safety Requirements for Construction, Care, and Use of

ANSI B11.13  
Machine Tools – Single- and Multiple-Spindle Automatic Bar and Chucking Machines – Safety Requirements for Construction, Care, and Use of

ANSI B11.14  
Coil Slitting Machines/Systems – Safety Requirements for Construction, Care, and Use of

ANSI B11.15  
Pipe, Tube, and Shape Bending Machines – Safety Requirements for Construction, Care, and Use of

ANSI B11.16  
Metal Powder Compacting Presses – Safety Requirements for Construction, Care, and Use of

ANSI B11.17  
Horizontal Extrusion Presses – Safety Requirements for Construction, Care, and Use of

ANSI B11.18  
Machinery and Machine Systems for the Processing of Coiled Strip, Sheet, and Plate – Safety Requirements for

ANSI B11.19  
Performance Criteria for the Design, Construction, Care, and Operation of Safeguarding when Referenced by Other B11 Machine Tool Safety Standards

ANSI B11.20  
Machine Tools – Manufacturing Systems/Cells – Safety Requirements for Construction, Care, and Use of

ANSI B183  
Roll Forming and Roll Bending Machines – Safety Requirements for Construction, Care, and Use of

ANSI/RIA 15.06  
Safety Requirements for Industrial Robots and Robot Systems

NFPA 79  
Electrical Standard for Industrial Machinery 2015 Edition

### SOURCE FOR STANDARDS

ANSI & NFPA Standards are available from:  
American National Standards Institute (ANSI)  
11 West 42nd Street  
New York, NY 10036  
Telephone: (212) 642-4900

OSHA Regulations are available from:  
Superintendent of Documents  
Government Printing Office  
Washington, DC 20402-9371  
Telephone: (202) 783-3238