

# ANSI/ASSP A10.40 – 2007 (R2018)

Reduction of Musculoskeletal Problems in  
Construction



AMERICAN SOCIETY OF  
**SAFETY PROFESSIONALS**



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**ANSI/ASSP A10.40 – 2007 (R2018)**

**American National Standard  
Construction and Demolition Operations**

**Reduction of Musculoskeletal Problems in Construction**

Secretariat

**American Society of Safety Professionals**  
520 N. Northwest Highway  
Park Ridge, Illinois 60068

**Approved September 27, 2018**

**American National Standards Institute**

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## **Foreword** (This Foreword is not a part of American National Standard A10.40-2007 (R2018).)

This standard is one of a series of safety standards that have been formulated by the Accredited Standards Committee on Safety in Construction and Demolition Operations, A10. It is expected that the standards in the A10 series will find a major application in industry, serving as a guide to contractors, labor and equipment manufacturers. For the convenience of users, a list of existing and proposed standards in the A10 series for Safety Requirements in Construction and Demolition Operations follows.

A10.1	Pre-Project & Pre-Task Safety & Health Planning
A10.2	Safety, Health and Environmental Training (under development)
A10.3	Powder-Actuated Fastening Systems
A10.4	Personnel Hoists and Employee Elevators
A10.5	Material Hoists
A10.6	Demolition Operations
A10.7	Use, Storage, Handling and Site Movement of Commercial Explosives and Blasting Agents
A10.8	Scaffolding
A10.9	Concrete and Masonry Construction
A10.10	Temporary and Portable Space Heating Devices
A10.11	Personnel Nets
A10.12	Excavation
A10.13	Steel Erection
A10.15	Dredging
A10.16	Tunnels, Shafts and Caissons
A10.17	Safe Operating Practices for Hot Mix Asphalt (HMA) Construction
A10.18	Temporary Roof and Floor Holes, Wall Openings, Stairways and Other Unprotected Edges
A10.19	Pile Installation and Extraction Operations
A10.20	Ceramic Tile, Terrazzo and Marble Work
A10.21	Safe Construction and Demolition of Wind Generation/Turbine Facilities
A10.22	Rope-Guided and Non-Guided Workers' Hoists
A10.23	Safety Requirements for the Installation of Drilled Shafts
A10.24	Roofing – Safety Requirements for Low-Sloped Roofs
A10.25	Sanitation in Construction
A10.26	Emergency Procedures for Construction Sites
A10.27	Hot Mix Asphalt Facilities
A10.28	Work Platforms Suspended from Cranes or Derricks
A10.29	Aerial Platforms in Construction (under development)
A10.31	Digger-Derricks
A10.32	Personal Fall Protection Used in Construction and Demolition Operations
A10.33	Safety and Health Program Requirements for Multi-Employer Projects
A10.34	Public Protection
A10.35	Pressure Testing of Steel and Copper Piping Systems (under development)
A10.37	Debris Nets
A10.38	Basic Elements of a Program to Provide a Safe and Healthful Work Environment
A10.39	Construction Safety and Health Audit Program
A10.40	Reduction of Musculoskeletal Problems in Construction
A10.42	Rigging Qualifications and Responsibilities in the Construction Industry
A10.43	Confined Spaces in Construction and Demolition Operations
A10.44	Lockout/Tagout in Construction
A10.46	Hearing Loss Prevention
A10.47	Highway Construction Safety
A10.48	Communication Structures
A10.49	Control of Health Hazards

One purpose of these standards is to serve as guides to governmental authorities having jurisdiction over subjects within the scope of the A10 Committee standards. If these standards are adopted for

governmental use, the reference of other national codes or standards in individual volumes may be changed to refer to the corresponding regulations.

**Normative Requirements:** This standard uses the single column format common to many international standards. The normative requirements appear aligned to the left margin. To meet the requirements of this standard, machinery, equipment and process suppliers and users must conform to these normative requirements. These requirements typically use the verb "shall."

*NOTE: The informative or explanatory notes in this standard appear indented, in italics, in a reduced font size, which is an effort to provide a visual signal to the reader that this is informative note, not normative text, and is not to be considered part of the requirements of this standard; this text is advisory in nature only. The suppliers and users are not required to conform to the informative note. The informative note is presented in this manner in an attempt to enhance readability and to provide explanation or guidance to the sections they follow.*

**Revisions:** The A10 Committee welcomes proposals for revisions to this standard. Revisions are made to the standard periodically (usually five years from the date of the standard) to incorporate changes that appear necessary or desirable, as demonstrated by experience gained from the application of the standard. Proposals should be as specific as possible, citing the relevant section number(s), the proposed wording and the reason for the proposal. Pertinent documentation would enable the A10 Committee to process the changes in a more-timely manner.

**Interpretations:** Upon a request in writing to the Secretariat, the A10 Committee will render an interpretation of any requirement of the standard. The request for interpretation should be clear, citing the relevant section number(s) and phrased as a request for a clarification of a specific requirement. Oral interpretations are not provided.

No one but the A10 Committee (through the A10 Secretariat) is authorized to provide any interpretation of this standard.

**Approval:** Neither the A10 Committee nor American National Standards Institute (ANSI) approves, certifies, rates or endorses any item, construction, proprietary device or activity.

**Appendices:** Appendices are included in most standards to provide the user with additional information related to the subject of the standard. Appendices are not part of the approved standard.

**Checklists:** Checklists included in A10 standards may be copied and used in non-commercial settings only.

**Committee Meetings:** The A10 Committee meets twice per year. Persons wishing to attend a meeting should contact the Secretariat for information.

**Standard Approval:** This standard was processed and approved for submittal to ANSI by the American National Standards Committee on Safety in Construction and Demolition Operations, A10. Approval of the standard does not necessarily imply (nor is it required) that all Committee members voted for its approval. At the time ANSI approved this standard, the A10 Committee had the following members:

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## **AMERICAN NATIONAL STANDARD A10.40 REDUCTION OF MUSCULOSKELETAL PROBLEMS IN CONSTRUCTION**

### **1. Scope and Purpose**

#### **1.1 Scope**

This standard applies to construction work where there may be risk factors, which could lead to musculoskeletal problems for construction workers. This standard does not apply to office or administrative work performed by construction companies.

#### **1.2 Purpose**

The purpose of this standard is to reduce occupational contributions to musculoskeletal problems in construction workers.

*NOTE: Implementing this standard can help reduce the risk of musculoskeletal problems but may not eliminate them due to the complex etiology of musculoskeletal problems and non-occupational risk factors. Note also that the mere presence of occupational risk factors may not constitute a problem.*

*NOTE: This standard is not intended to be and should not be used by governmental authorities in any enforcement procedures or as a basis for enforceable standards. The committee understands that there is not complete agreement about the causes and solutions to musculoskeletal problems in construction.*

#### **1.3 Modifications and Exemptions**

In cases of practical difficulty, infeasibility, new developments and/or unnecessary hardship, exceptions may be made to the literal requirements of this standard, but only when it is clearly evident that equivalent protection is thereby assured.

### **2. Definitions**

**2.1 Musculoskeletal Problems.** Musculoskeletal problems include injuries to the muscle, tendon, sheath, nerve, bursa, blood vessel, bone, joint or ligament and musculoskeletal pain or swelling, and also where there may not be any obvious evidence of injury and where occupational exposure is clearly identified. The injuries include, but are not limited to:

- muscular
- carpal tunnel syndrome
- thoracic outlet
- tenosynovitis
- myalgia
- double crush syndrome
- Raynaud's
- de Quervain's
- strains
- cubital tunnel syndrome
- connective tissue
- bursitis
- spasms
- sciatica
- disc damage