ASME A120.1-2014
(Revision of ASME A120.1-2008)

Safety Requirements for Powered Platforms and Traveling Ladders and Gantries for Building Maintenance

AN AMERICAN NATIONAL STANDARD

The American Society of Mechanical Engineers

ASME A120.1-2014
(Revision of ASME A120.1-2008)

Safety Requirements for Powered Platforms and Traveling Ladders and Gantries for Building Maintenance

AN AMERICAN NATIONAL STANDARD

The American Society of Mechanical Engineers

Two Park Avenue • New York, NY • 10016 USA

Date of Issuance: February 9, 2016

The next edition of this Standard is scheduled for publication in 2018. This Standard will become effective 6 months after the Date of Issuance.

ASME issues written replies to inquiries concerning interpretations of technical aspects of this Standard. Interpretations are published on the ASME Web site under the Committee Pages at http://cstools.asme.org/ as they are issued.

Errata to codes and standards may be posted on the ASME Web site under the Committee Pages to provide corrections to incorrectly published items, or to correct typographical or grammatical errors in codes and standards. Such errata shall be used on the date posted.

The Committee Pages can be found at http://cstools.asme.org/. There is an option available to automatically receive an e-mail notification when errata are posted to a particular code or standard. This option can be found on the appropriate Committee Page after selecting "Errata" in the "Publication Information" section.

The American Society of Mechanical Engineers
Two Park Avenue, New York, NY 10016-5990

CONTENTS

FOREWORD

This Standard provides for the safe design of powered platforms for building maintenance, where window cleaning and related services are accomplished by means of suspended equipment at heights in excess of 35 ft (11 m) above a safe surface, e.g., grade, street, floor, or roof level.

The provisions of the Standard are intended to apply to all known systems used to support suspended maintenance equipment as well as the suspended equipment itself (either permanently installed or transportable equipment). Guidelines are also included for a building's structural support areas as well as the building surfaces that actually interface with the equipment.

The Standard does not apply to other suspended powered platforms used for remedial renovations or modifications to buildings. The safe use of these types of scaffolds is addressed by American National Standard ANSI A10.8. The A120.1 Standard also does not relate to any service performed by persons supported by equipment covered by any of the ANSI A92 Standards.

The purpose of this Standard is to ensure the protection of all powered platform users as well as persons potentially exposed to use of the equipment. In developing this Standard, safety has been held as the primary consideration. The Standard requires that permanently installed or transportable equipment be properly designed by a qualified professional engineer, taking into account specific building features rather than attempting to accommodate the system to a building's structure and façade features that may not be suitable for its safe operation. In addition, care has been taken so as not to exclude or render obsolete any existing product or equipment.

Operation and maintenance instructions in this safety standard are intended for general applications. The equipment manufacturer and/or installer shall be consulted for specific operating or maintenance instructions.

This Standard reflects the evolution of a project begun in 1962 by the American National Standards Committee on Window Cleaning Safety, A39. At that time, the Committee recognized that a new method was being developed for cleaning fixed sash windows by means of a special scaffolding. In order to deal expertly with this new development, a new project was established, separate from that handled by the A39 Committee. Following a general conference, the American National Standards Committee on Powered Platforms, ANSI A120, was formed, with the National Safety Council acknowledged as sponsor. In 1965, the American Society of Mechanical Engineers (ASME) was approved as co-sponsor. In 1984, the Building Owners and Managers Association International was approved as secretariat.

A previous edition of the Standard, A120.1-1970, was administratively withdrawn in 1989. This Standard had established safety requirements for the design, construction, installation, inspection, and use of power-operated platforms for exterior building maintenance. The Standard did not apply to temporary equipment used for construction work or to devices raised and lowered manually.

A120.1-1992 was the result of joint action by participating organizations under the auspices of the American National Standards Institute (ANSI). That Standard was approved through two votes of the ANSI A120 Committee, at a meeting in New York City (October 17, 1991) and by letter ballot (dated December 30, 1991).

In 1995, ASME again assumed sponsorship of the Standard. ASME A120.1-1996 was approved by ANSI on April 17, 1996. ASME A120.1-2001 was approved by ANSI on July 3, 2001. ASME A120.1-2006 was approved by ANSI on September 20, 2006. ASME A120.1-2008 was approved by ANSI on July 16, 2008.

This revision was approved by ANSI on March 4, 2014.

ASME A120 COMMITTEE
Safety Requirements for Powered Platforms for Building Maintenance

(The following is the roster of the Committee at the time of approval of this Standard.)

STANDARDS COMMITTEE OFFICERS

C. S. Caulkins, *Chair*
B. L. Gartner, *Vice Chair*
A. Byk, *Secretary*

STANDARDS COMMITTEE PERSONNEL

W. T. Ayres, W. T. Ayres & Associates
J. W. Boudreau, Power Climber
G. Brickell, Safeworks, LLC
S. D. Bright, International Window Cleaning Association
L. Brijmohan, ENTEK Engineering, LLC
A. Byk, The American Society of Mechanical Engineers
J. Capon, Valcourt Building Services
C. S. Caulkins, C. S. Caulkins, Inc.
J. M. Moore, *Alternate,* C. S. Caulkins, Inc.
L. D. Coleman, JOBS Building Services, Inc.
K. Blasingame, *Alternate,* JOBS Building Services, Inc.
W. M. Ferguson, April Building Services, Inc.
H. Garcia, HSG Professional Window Cleaners, Inc.
B. Lapham, *Alternate,* Valcourt Building Services
B. L. Gartner, Weatherguard Service, Inc.
C. W. Gray, Sky Rider Equipment Co., Inc.
M. Villegas, *Alternate,* Sky Rider Equipment Co., Inc.
J. J. Haigh, Safeworks, LLC
L. B. Herzog, Lee Herzog Façade Access Consulting, Inc.
T. I. Srioudom, *Alternate,* Lee Herzog Façade Access Consulting, Inc.
S. H. Ho, H D & D
D. E. Hoberg, DBM Consultants and Engineers
C. Hogne, R & R Scaffolding, Ltd.
J. D. Horvath, Horvath Reich CDC, Inc.
C. L. Huffman, Martin's Window Cleaning Corp.
D. E. Johnson, Manntech North America, LLC
R. D. Luttrell, Applied Technical Services, Inc.
A. G. Teska, *Alternate,* Applied Technical Services, Inc.
S. P. Lynn, Lynn Safety, Inc.
S. R. Lynn, Lynn Safety, Inc.
L. McCune, State of California
J. Foss, *Alternate,* State of California
G. McEneaney, Local 32 BJ, Window Cleaning Division
A. Horton, *Alternate,* Local 32 BJ, Window Cleaning Division
L. A. McMasters, Lerch Bates
K. J. Thompson, *Alternate,* Lerch Bates
D. F. Ortiz, Olympique Façade Access Consulting
R. Patel, RDP Engineering, Inc.
C. A. Pedersen, World Window Cleaning Co.
N. W. Pedersen, *Alternate,* World Window Cleaning Co.
C. H. Schoch, Tractel, Inc.
A. Kanarek, *Alternate,* Tractel, Inc.
P. D. Shumway, XSPlatforms US
E. Sikorski, Elm Suspension Systems, Inc.
J. E. Stager, Service Employees International Union, AFL-CIO
J. E. Storey, Horvath Reich CDC, Inc.
C. J. Theve, Tractel, Inc.
G. Tinker, Tower Safety Services, Inc.
L. Wikstrom, Winstall Corp.
H. Zander, Winstall Corp.
J. A. Zarris, Service Employees International Union, Local 1
R. Zeolla, Sunset Cleaning Co.

CORRESPONDENCE WITH THE A120 COMMITTEE

General. ASME Standards are developed and maintained with the intent to represent the consensus of concerned interests. As such, users of this Standard may interact with the Committee by requesting interpretations, proposing revisions, and attending Committee meetings. Correspondence should be addressed to:

Secretary, A120 Standards Committee
The American Society of Mechanical Engineers
Two Park Avenue
New York, NY 10016-5990
http://go.asme.org/Inquiry

Proposing Revisions. Revisions are made periodically to the Standard to incorporate changes that appear necessary or desirable, as demonstrated by the experience gained from the application of the Standard. Approved revisions will be published periodically.

The Committee welcomes proposals for revisions to this Standard. Such proposals should be as specific as possible, citing the paragraph number(s), the proposed wording, and a detailed description of the reasons for the proposal, including any pertinent documentation.

Interpretations. Upon request, the A120 Standards Committee will render an interpretation of any requirement of the Standard. Interpretations can only be rendered in response to a written request sent to the Secretary of the A120 Standards Committee at go.asme.org/Inquiry.

The request for an interpretation should be clear and unambiguous. It is further recommended that the inquirer submit his/her request in the following format:

Subject:	Cite the applicable paragraph number(s) and the topic of the inquiry.
Edition:	Cite the applicable edition of the Standard for which the interpretation is being requested.
Question:	Phrase the question as a request for an interpretation of a specific requirement suitable for general understanding and use, not as a request for an approval of a proprietary design or situation. The inquirer may also include any plans or drawings that are necessary to explain the question; however, they should not contain proprietary names or information.

Requests that are not in this format may be rewritten in the appropriate format by the Committee prior to being answered, which may inadvertently change the intent of the original request.

ASME procedures provide for reconsideration of any interpretation when or if additional information that might affect an interpretation is available. Further, persons aggrieved by an interpretation may appeal to the cognizant ASME committee or subcommittee. ASME does not "approve," "certify," "rate," or "endorse" any item, construction, proprietary device, or activity.

Attending Committee Meetings. The A120 Standards Committee regularly holds meetings and/or telephone conferences that are open to the public. Persons wishing to attend any meeting and/or telephone conference should contact the Secretary of the A120 Standards Committee.

ASME A120.1-2014
SUMMARY OF CHANGES

Following approval by the ASME A120 Committee and ASME, and after public review, ASME A120.1-2014 was approved by the American National Standards Institute on March 4, 2014.

ASME A120.1-2014 includes editorial changes, revisions, and corrections identified on the pages by a margin note, **(14)**, placed next to the affected area.

Page	*Location*	*Change*
1–4	1.5	Updated
	1.6	(1) Definitions of *anchor*, *anchorage*, *base*, *pedestal (davit/outrigger)*, *shunt carriage*, and *socket (davit/outrigger)* added (2) Definitions of *dropline* and *lifeline* revised
5	2.2	Revised
7	2.3.5	(1) Second paragraph revised (2) Last paragraph added
8	3.1.1	Last paragraph revised
	3.1.4	Last paragraph added
9, 10	3.1.7	Added
	3.1.8	Added
	3.1.9	Added
11	3.2.7	Revised in its entirety
	3.3.1	Revised
	3.3.2	Revised in its entirety
12–14	3.4	(1) First paragraph revised (2) Subparagraph (g) added
	3.5	Revised in its entirety
	3.6	Last paragraph added
15	3.7.2	Former para. 3.7.2 deleted and subsequent paragraphs redesignated
16, 17	3.7.4.10	Revised in its entirety
	3.7.4.12	First sentence revised
23	5.1.2	(1) Title revised (2) Subparagraphs (c) through (i) added

INTENTIONALLY LEFT BLANK

SAFETY REQUIREMENTS FOR POWERED PLATFORMS AND TRAVELING LADDERS AND GANTRIES FOR BUILDING MAINTENANCE

1 GENERAL RECOMMENDATIONS AND DEFINITIONS

1.1 Scope

This Standard establishes safety requirements for powered platforms (scaffolds) for buildings where window cleaning and related services are accomplished by means of suspended equipment at heights in excess of 35 ft (11 m) above a safe surface (e.g., grade, street, floor, or roof level). Additionally, this Standard establishes safety requirements for permanent traveling ladders and gantries (TLG).

It pertains to either permanently installed or transportable equipment meeting the requirements of this Standard.

Powered platforms and TLGs may be used or operated by one or more persons engaged in services such as normal building maintenance. The equipment may also be used for tasks such as caulking, metal polishing, reglazing, or other building repairs.

This Standard does not apply to other suspended powered platforms used for remedial renovations or modifications to buildings. The safe use of these scaffolds is included in ANSI A10.8-2001, Safety Requirements for Scaffolding.

This Standard does not relate to any service performed by persons supported by equipment covered by any of the ANSI A92 standards.

1.2 Purpose

The purpose of this Standard is to ensure the protection of powered platform users and traveling ladder and gantry users, and persons exposed to equipment used with the previously described maintenance of buildings.

It is also intended for use by architects, engineers, designers, manufacturers, inspectors, purchasers, building owners, and others associated with the installation of powered platforms and traveling ladders and gantries.

Additionally, it is recommended for use by enforcement agencies having jurisdiction over the installation of powered platforms and traveling ladders and gantries to ensure that the platforms meet the safety provisions of this Standard.

1.3 Application of This Standard

1.3.1 Applications. This Standard applies to the installation of all powered platforms and traveling ladders and gantries.

1.3.2 Deviations. Deviations from the requirements of this Standard may be granted by the enforcing authority if it is determined that a specific requirement creates practical difficulty or excessive hardship, or where the specific requirement prevents the use of a novel design, only when equivalent safety is provided.

1.3.3 Alterations

(a) Any existing building being serviced may continue to be serviced until the building is altered, requiring a modification of the installation. Alteration of the building and equipment modification shall then be made to comply with the applicable parts of this Standard.

(b) If the authority having jurisdiction believes that hazards exist to warrant a change in an existing installation, the authority may require compliance with any part of this Standard. If a qualified person deems that a hazard exists, the hazard shall be corrected, and the correction shall be in compliance with this Standard.

(c) Once a building permit is issued or modified, the current version of the Standard shall apply.

1.4 Applicable Units

This edition of the Standard uses U.S. Customary units with acceptable metric (SI) units shown in parentheses.

NOTE: The metric values stated may not be exact equivalents to the U.S. Customary units.

Information on the usage of SI units and their conversion from U.S. Customary units is contained in the IEEE/ASTM SI 10-1997, Standard for the Use of the International System of Units (SI): The Modern Metric System; or ASME Guide SI-1, Orientation and Guide for Use of SI (Metric) Units.

1.5 References (14)

When a nationally recognized standard, other than that specifically referred to in para. 1.1, is referred to and is superseded by a revision, the edition current at the time of acceptance of this Standard shall apply.