



RISK MANAGEMENT ADVISORY
Utica National Insurance Risk Management Department Bulletin

Construction Series

THINK SAFETY!

Portable Ladder Safety

Business Case

Your employees risk falling if portable ladders are not safely positioned each time they are used. While an employee is on a ladder, it may move and slip from its supports. A worker can also lose their balance while getting on or off an unsteady ladder. Falls from ladders can cause injuries ranging from sprains to death.

Solutions

Loads

Self-supporting (foldout) and non-self-supporting (leaning) portable ladders must be able to support at least 4 times the maximum intended load, except extra-heavy duty metal or plastic ladders, which must be able to sustain 3.3 times the maximum intended load. (See Figure 1.)



Figure1

Angle

Non-self-supporting ladders, which must lean against a wall or other support, are to be positioned at such an angle that the horizontal distance from the top support to the foot of the ladder is about 1/4 the working length of the ladder. (See Figure 2.) In the case of job-made wooden ladders, that angle should equal about 1/8 the working length. This minimizes the strain of the load on ladder joints that may not be as strong as those on commercially manufactured ladders.

Rungs

Ladder rungs, cleats or steps must be parallel, level and uniformly spaced when the ladder is in position for use. Rungs must be spaced between 10 and 14 inches apart. For extension trestle ladders, the spacing must be 8-18 inches for the base and 6-12 inches on the extension section. Rungs must be skid-resistant and shaped so an employee's foot cannot slide off. (See Figure 3.)

The information contained in this publication has been developed from sources believed to be reliable. It should not, however, be construed or relied upon as legal advice and Utica National accepts no legal responsibility for its correctness or for its application to specific factual situations.


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Figure 2



Figure 3

Slipping

Ladders are to be kept free of oil, grease, wet paint and other slipping hazards. Wood ladders must not be coated with any opaque covering, except identification or warning labels on only one face of a side rail.

Other Requirements

Foldout or stepladders must have a metal spreader or locking device to hold the front and back sections in an open position when in use. (See Figure 4.)

When two or more ladders are used to reach a work area, they must be offset with a landing or platform between the ladders.

The area around the top and bottom of ladder must be kept clear.

Ladders must not be tied or fastened together to provide longer sections, unless they are specifically designed for such use. (See Figure 5.)

Never use a ladder for any purpose other than the one for which it was designed.



Figure 4



Figure 5



Upper right photo shows the improper use of the top rung of a step ladder.

Control+click the following link to view the entire OSHA E-tool titled "Misuse of Portable Ladders":
www.osha.gov/SLTC/etools/construction/falls/ladders.html

Recommended uses: New hire training and orientation, tool box meetings, pre-job planning, job safety analysis and accident investigation.

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