

## *Ladders: Don't Fall for It!*

**THERE** are three types of ladders used around the home to reach elevated areas both indoors and outdoors such as gutters, roofs, tree branches, and house walls for painting, siding and repairs.



Werner D6224-2 Extension Ladder, Fiberglass, 24-ft., IA



Werner 5-ft Aluminum 250-lb Type I Step Ladder



Werner M1-8-16 250-Pound Duty Rating Aluminum Folding Multi-Master Articulated Ladder, 16-Foot

OSHA reports that 16% of fatal construction injuries and 24% of non-fatal injuries result from incorrect use of ladders. In fact, in construction, 81% of all fall injuries are caused by ladders. 50% of all injuries occur when workers attempt to carry objects while climbing. The three points of contact rule means that 2 hands and 1 foot or 2 feet and 1 hand are always gripping the ladder rails and rungs. 50% of all injuries resulting from falls of 15 feet or higher are fatal.

Extension ladders, step ladders and articulated ladders that are both extension and step as needed.

There are four ladder issues to deal with:

1. Height needed to reach.
2. The maximum safe reaching height is 4 feet higher than the ladder.
3. Weight of person and equipment on the ladder.
4. Materials of construction: wood, fiberglass or aluminum and weight of the ladder
5. Cost

These factors sometimes work together. For example, an industrial duty step ladder can range in height from 3 to 20 feet. These are 1AA and 1A and hold 375 or 300 pounds. Medium duty ladders can support 225 pounds and are Type II. These are limited in height to 12 feet while light duty ladders are limited to 3 to 6 feet and can support 200 pounds.

***50% of injuries are falls that result from stepping off and onto the ladder onto an elevated platform such as roof or tree branch.***

Can or should you handle these by yourself?

Yes and No.

An 8 foot wood ladder weighs 40 pounds, while a fiberglass ladder weighs 26 pounds. The aluminum ladder is lightest at 22 pounds.

By comparison, a 40 foot extension (2 – 20 feet ladders) weighs 100 pounds and can cost \$1,000. A 40 foot fiberglass weighs 90 pounds while the aluminum version weighs 90 pounds.



Guardian Fall Protection 10800 Safe-T Ladder Extension System

As you can predict light duty ladders weigh less than industrial duty ladders.

Extension ladders need to be angled against the supporting surface: 1-ft for every 4-ft of height. Hence a 20 foot ladder must be at least 5 feet from the base of the wall.

There are three accessories to consider purchasing with your ladder. For some homeowners, these are essential for safe ladder use, not “accessories”.

1. Foot extensions for extension ladders that permit ladders to be placed on uneven surfaces.
2. Top rail extensions that extend the rails by 4 feet above the roof and allow for a good grip while swinging the legs onto and off of the ladder. (Guardian Safety Ladder Extensions)

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3. Ladder stabilizers: these are metal U shaped rods that hold the ladder about 10-12 inches away from the wall and span 4-ft. Typically the stabilizers span the width of a window allowing the ladder to be placed in front of but not on the window.

Think about all of the elevated areas you need to reach with a ladder. You may need two step ladders, one extension ladder and one articulated, e.g. Little Giant type ladder to reach all of these locations. These could easily cost \$2,000-\$2,500 and need covered storage when not in use to protect the ladder.

For long term projects, renting aerial lifts and temporary scaffolds may be a safer solution than using ladders.

Check out the major ladder manufacturers and the American Ladder Institute:

Werner Ladders, Lynn Ladders, Louisville Ladders and Little Giant Ladders.



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