



# SafetyAlert

We're Serious About Safety

## Ladder Selection

### Know the Difference

Some workers might not realize the differences from one ladder to the next. Having the right ladder for the job is the safest way to complete any task. Using the wrong ladder is extremely dangerous as it often leads to ladder misuse or abuse and can result in serious injury or even death. To get an idea of some of the different ways that ladders are used, just think about all of the tasks you and the other professionals do. Most of them require the use of ladders of different sizes, materials and duty ratings.

#### Some of the questions that may help you to select the appropriate ladder include:

- Where will the ladder be used? Indoors or outdoors or both?
- What type of work projects or jobs will the ladder be used for?
- Is there a possibility of working around electricity or overhead power lines?
- How much weight will be on the ladder including tools and materials?
- What is the highest height you need to reach?



## Ladder Sizes

There are numerous ladders sizes and lengths. You need to know the maximum reach height when shopping. Keep these points in mind to avoid buying one that's too short or too tall – which means you're working safely and efficiently. Stand no higher than two steps down from the top of a step ladder. Typically, this means a 5-1/2-foot person with a vertical 1-foot reach can safely access a point 4 feet beyond the length of the ladder.

An extension ladder needs to be several feet taller than the height you need to reach. Keep these points in mind: The highest safe standing level is four rungs from the top of the ladder. The sections must overlap at least 3 feet on ladders up to 36 feet in length and as much as 5 feet on longer ladders. The ladder should be at the correct angle, with the base 1 foot out from the surface it rests against for every 4 feet of height to that point. When the ladder rests against a surface such as a roof line, it needs to extend 3 feet beyond the top support point. All of these factors combined mean you should look for an extension ladder 7 to 10 feet longer than the highest point it rests against.



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## Ladder Selection - Continued

### Ladder Materials

Aluminum ladders offer strength and a lighter weight that makes them easier to maneuver and carry. The material is corrosion-resistant, but conducts electricity. Don't use an aluminum ladder when working on electrical projects or near electrical lines. Fiberglass ladders are strong and durable. When clean and dry, they don't conduct electricity and are the right choice for electrical projects and work near electrical lines. Other materials such as steel, wood and plastic are often available with step-stools, which are smaller than standard ladders and designed for tasks that don't require a great deal of reach.

### Selecting Ladder Height - How high do you need to reach?

To ensure you choose the ladder best suited to your needs, use the height safety chart. The highest permitted standing level on a stepladder is two steps down from the top. A person standing higher may lose their balance and fall. A person's maximum safe reaching height is approximately 4' higher than the height of the ladder. For example, a typical person can safely reach an 8' ceiling on a 4' ladder.

Extension Ladders		
Ladder Height	Maximum Reach*	Height to Gutter or Top Support Point
16'	15'	9' Max
20'	19'	9' to 13'
24'	23'	13' to 17'
28'	27'	17' to 21'
32'	31'	21' to 25'
36'	34'	25' to 28'
40'	37'	28' to 31'

### Ladder Ratings

Load capacity or duty rating indicates the weight a ladder can handle. You may also see this referred to as a performance rating. When determining the load capacity you need, include the weight of the user plus the weight of any tools and materials you need to use.

*Ladder ratings are provided by the American National Standards Institute (ANSI).*

Type	Load Capacity
IAA	375 lbs
IA	300 lbs
I	250 lbs
II	225 lbs
III	200 lbs



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