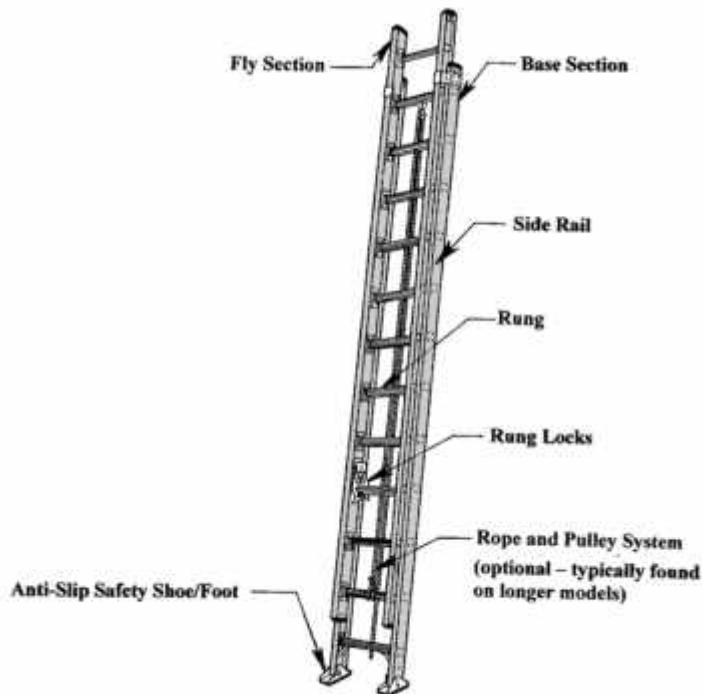


## Extension Ladder



Extension Ladders are built with either two or three adjustable telescopic sections. The maximum extended length is dependent upon the number of sections as well as the duty rating of the ladder as follows:

Duty Rating	Type	Two-Section (feet)	Three-Section (feet)
Extra heavy duty	Type IA	60	72
Heavy duty	Type I	60	72
Medium Duty	Type II	48	60
Light Duty	Type III	32	--

Selection of proper Extension Ladder size requires knowledge of the height of the top support point. In the event the top support point is a roof eave, the top of the Extension Ladder **must extend one to three feet above the roof eave** if the climbers' intent is to access the roof. The ladder **must also be tied** to the

upper access level before climbing onto or off the ladder at the upper level. The user must take care when getting on or off the ladder at the upper level in order to avoid tipping the ladder over sideways or causing the ladder base to slide out.

The telescopic sections of an Extension Ladder, also known as Fly Sections, are held into their adjusted position by extension locking devices known as Rung Locks. Rung Locks can be built from any of several types of designs including gravity, spring-action, rope operated, or stationary types. Some Extension Ladder Fly Sections incorporate locks that result in the elimination of one rung and, therefore, do not meet the requirements for use as a Single Ladder. Similarly, Extension Ladder Fly Sections that are not equipped with anti-slip feet or any other provision necessary for compliance with Single Ladder requirements are required to be marked with a safety sign instructing that the Fly section is not to be used separately. In lieu of the safety sign, the Fly Sections must be held into the base section of the Extension Ladder by permanently attached stops, i.e. stops that require some type of forcible means to achieve Fly Section removal. In the event you wish to maximize the versatility of your Extension Ladder, seek a design that is intended for the separation and separate use of the Fly Section(s) as a Straight Ladder.

When an Extension Ladder has previously been used as a Single Ladder, care should be exercised in properly reassembling the sections to insure that the interlocking guides or brackets are properly engaged before further use.

Extension Ladders may be equipped with rope and pulley systems to assist the user when extending the Fly Sections. The rope must have a **minimum** breaking strength of 560 pounds. On three-section Extension Ladders, a wire cable may be utilized in place of the rope providing the cable has a minimum 1/8-inch diameter.

Adjustment of Extension Ladders must be made by the user when standing at the base of the ladder so that proper engagement of the Rung Locks can be observed. Under no circumstances is an extension adjustment to be made when anyone is standing on the ladder. It is also the user's responsibility to make sure the extension rope is tracking correctly in the pulley.

The base section of an Extension Ladder must be equipped with slip resistant feet such as safety shoes, spurs, spikes, conformable shoes, and flat or radiused tread feet.

**Proper Use:**

Unlike a stepladder that requires level support for all four of its side rails, the Extension Ladder requires only two level ground support points in addition to a top support. Ladder levelers may be used to achieve equal rail support on uneven surfaces. The top support also allows the opportunity to secure or tie off the top of the ladder to increase stability.

In cases where the work site imposes a height restriction on the ladder length, the user may find that longer ladders are not capable of being set-up at the proper 75 ½ degree angle, even when fully retracted. To safeguard against the bottom of the ladder sliding out, select a shorter Extension or Single Ladder.

There are also situations where the use of a particular ladder length creates a gap in the height of a wall that can be reached by the user. For example, a 28-foot Extension Ladder, fully retracted to its 14-foot length, cannot be used to work on a wall below a certain height because the user would be too far out from the wall. Usually, the lower portion of the wall can be reached from the ground up to a height of about 7 feet. When working from the 14-foot Extension Ladder, working from the ladder below 10-feet becomes a problem. These conditions create a gap between 7 and 10-feet in height where another ladder selection is recommended. To work in this zone, a shorter non-self-supporting ladder such as a stepladder

should be considered.

In order to prevent tipping the ladder over sideways due to overreaching, the user must climb or work with the body near the middle of the rungs. Never attempt to move the ladder without first descending, relocating the ladder, and then re-climbing. Do not attempt to mount the ladder from the side or step from one ladder to another unless the ladder is secured against sideways motion.

In an effort to avoid losing your balance and falling off an Extension Ladder, the user must not step or stand higher than the step indicated on the label marking the highest standing level.

Extension Ladders should be erected as close to a pitch of 75 1/2 degrees from the horizontal as possible for optimum resistance against the bottom of the ladder sliding out, strength of the ladder, and balance of the climber. A simple rule for setting-up the ladder at the proper angle is to place the base a distance from the wall or upper support equal to one-quarter of the extended length of the ladder side rails.

When ascending or descending the ladder, always face the ladder and maintain a firm hand hold. Do not attempt to carry other objects in your hand(s) while climbing.

The anti-slip feet at the bottom of the Extension Ladder side rails must be present and in good condition prior to using the ladder. The ladder must not be used on ice, snow or slippery surfaces unless suitable means to prevent slipping is employed.

An Extension Ladder must never be placed upon other objects such as boxes, barrels, scaffolds, or other unstable bases in an effort to obtain additional height.

The user must avoid setting-up an Extension Ladder upside-down. That is, with the Fly Section at the bottom and the Base Section at the top with the Rung Locks engaged.

The top of an Extension Ladder must be placed with the two side rails equally supported unless the ladder is equipped with a single-support attachment for situations such a pole light standard, building corner or in-tree type operation such as pruning or fruit picking. When it is necessary to support the top of the ladder at a window opening, a device should be attached across the back of the ladder and extending across the window to provide firm support against the building walls or window frames.

Extension Ladders or the ladder sections must not be tied or fastened together to provide a longer length unless specifically designed for the fastening means employed.