

Fixed Length Platforms

In the early years of our industry, suspended scaffold platforms were the ladder type, also known as "fixed length." These platforms were simple to use. If you wanted a platform, or board, to lift two persons, you purchased a 500-lb. rated board. If you wanted three persons to use the platform, you purchased a board with a 750-lb. capacity.

Rating this style of platform was as easy as looking at the side information tag on the deck. It was so simple that it was used in OSHA and industry related books as a standard. Even to this day, this style of platform is considered the standard in some areas of the country.

This platform had several drawbacks when compared to modular style platforms. Because the platform was fixed in its length, the longer versions were heavy and difficult to transport. The longer lengths, above 20', made two person crews mandatory for delivery. As the lengths exceeded 30', larger trucks were required to deliver these platforms legally to the jobsite.

When these platforms were damaged on site it was always difficult to bill adequately for the damage. If a customer damaged the end of a 36' platform, some dealers would bill out a proportional charge for length lost. Even if they added in the extra parts that needed to be ordered, it never really covered the costs of damage.

The dealer originally purchased a 36' platform, because that is what they rented. Though they could still rent the repaired and shortened platform, they did not have a 36' platform to rent. Therefore they had to purchase another 36' long platform, and after a few years they had a yard full of 20' platforms and some odd sizes.

Modular Style Platforms

After several years of trials, modular platforms began to catch on, at least for the more complicated building faces. Modular platforms allowed the rental company to access many more areas of the building, safer than ever before.

Modular style platforms had corners with different size angles. Working inside and outside of a tank, a tower, or on the latest new building was easier than ever. The corners came in standard sizes and could be used to build squares, rectangles, triangle and circular style platforms to meet the building's need.

Modular platforms are lightweight and easy to assemble. Longer length platforms are now being delivered in smaller vehicles with only one person. With a little training, even the longest modular platform can be set up with only one person.

Modular platforms should have eliminated some unsafe practices within the industry, by making them unnecessary. The unsafe practice of raising a platform into position at an angle should have disappeared with modular platforms. With fixed length boards some people decided that raising platforms at an angle was the only way to install this type of platform when obstructions were encountered at the base of the building. This practice is not considered safe or the designed use of the equipment.

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This practice was done when trees, landscaping or smaller buildings existed at the bottom of a building structure. When obstacles at the base of a building were encountered, other options for installing these platforms were considered too costly and labor intensive and therefore were not often used.

This practice poses a new set of hazards not originally present in the normal use of suspended scaffolding and should be stopped. Depending on the job site conditions, this practice can transfer unanticipated loads and forces to the equipment. These forces can cause damage to the equipment and possibly injure the operators.

Some of the original perceived drawbacks of modular platforms were price, weight and the number of parts. Modular platforms were made from many pieces, which has been one obstacle to their overall adoption within the industry. More pieces meant more complicated estimating, order pulling and rental check-in. More pieces also meant more training for parts identification.

Many of the advantages of modular platform come directly from the same drawbacks. Pricing is directly related to the number of parts and labor that goes into the production of the item. The number of parts associated with a modular platform gives a rental dealer, or equipment owner, more flexibility with the same pieces. Round, circular and various other shaped platforms are not easily accomplished with fixed length boards. Since the modular platform is constructed from pieces, rental operators now have the ability to bill just for the damage incurred with no penalty.

Modular platforms have so many options that most platforms are easily constructed without special engineering. Modular platforms have truly increased the capacity of suspended scaffolding in many ways.

The Process of Rating a Modular Platform

Fixed length boards offered three standard load ratings for their boards, 500, 750 and 1,000 pounds. Modular platforms have achieved load ratings much higher than this.

Though modular can achieve a higher load rating, for some persons, determining what is the actual load rating is difficult. The simple answer is, just look at the chart on the side of the platform.

The Load Rating of a Platform is equal to:

Lifting Capacity of hoist(s) *minus* Total weight of platform, *if this number is less than, or equal to the printed rating.*

OR

The printed load rating on the side of the platform when the platform is constructed according to the attached chart. *Only if* the combined lifting capacity of the hoists being used is equal to or greater than the self-weight of the platform and the live load capacity combined.

Topic of Interest

Let's define a few terms first. The "self-weight" of a platform is the combined weights of all items on, or that are part of a platform. This would include the components that make up the platform, the stirrups, the hoists, the wire rope, the power cord and anything else that is connected to the platform. This is sometimes referred to as the "dead load" or "dead weight".

The "Load Rating" of a platform, also known as "Live Load" rating, is the combined weight of objects that are added to, or are lifted by the platform. Things that would be added to the platform include the workers, their tools, and their materials.

Once the terms are known, calculating the platform load rating is done with a basic math formula. (See Above)

For example, a modular platform has a printed load rating of 2,000 lbs. when constructed according to the provided chart. The platform is using two hoists with a lifting capacity of 750lbs. each. Your actual load rating will be no higher than 1,500 lbs. If this platform has a self-weight of 1,000 lbs. your load rating would drop to just 500 lbs. in this example.

E.g. Actual Load Rating

(Total Lifting Capacity) - (Self-weight) = (Actual Load Rating) if \leq Printed Load Rating

$(750 + 750 = 1500) - (1000) = (500 \text{ lbs.})$

You cannot exceed the printed load capacity or the lifting capacity of the hoists.

Did You Know?

- The number one myth about modular platforms is that the longer the platform, the more load it can lift. Longer platforms usually decrease your load rating because their self-weight increases with length.
- Many modular platforms display a load rating with this disclaimer; "Evenly Distributed Weight or Loading applies." This means that you cannot place the full load rating at any one position on the platform. It must be an evenly distributed or spread out load.

Tips and Tricks

- On a mod platform with end stirrups, lay the stirrup down and attach the hoist. Raise the hoist and the stirrup into position using the hoist with power applied to it.

For questions or comments, contact Customer Service at 1-800-560-CLIMB (2546) or customerservice@safeworks.com.