

Multi-tier Suspended Platform Load Rating

Like two point suspended scaffold platforms, multi-tier platforms have load ratings; however, the loading on each level is added. This results in a total load applied to the hoists and rigging. The loads applied to all levels of the platform and the platform's self-weight are transmitted to the hoists and rigging. The rated load of the suspension system and hoists must equal or exceed the total platform load.

When selecting a multi-tier platform, there are two key decisions: the number of levels needed to perform the work, and the length of each level. The distance between levels is a third decision, but this distance only slightly affects the total dead weight of the suspended system. Usually as the number of levels increases, the length of each level decreases.

With modular platform sections, the manufacturer's limitations must be followed, or dangerous overload can occur. Remember, only 2 hoists support the heavy load of many modular sections and hangers. Three levels that are 20 ft. in length total 60 ft. of platform, all lifted by 2 hoists. If you add 2 workers per level, or a total of 6 workers, the hoists are responsible for lifting the weight of a 60-foot-long platform with 6 workers on it. Because modular platforms can be assembled to form various platforms of various lengths, it is important to check the manufacturer's load rating based on the platform's length, configuration, and number of levels. The user/ operation manual or labels on the platform should contain this information. In in doubt contact the manufacturer.

Modular multi-tier platforms might have cantilevered ends to allow access to corners. Manufacturers will specify the maximum length that can be extended beyond the support and will specify the maximum load that the cantilevered section can hold. End stirrups are more common. Generally, the hoists are located on the top level with hangers suspending the lower level(s). The hangers transmit the loads on each level to the hoists.

User training is required by Federal OSHA for all workers on a scaffold. This training requires that the user know the maximum intended load and the load-carrying capacity of the scaffold for each level. For more information consult the latest editions of ANSI A 10.8 and OSHA 29 CFR part 1926 Subpart L

Fall protection systems for multi-tier platforms are specially designed. Secondary wire ropes are required along with horizontal lines on lower levels. If workers are to move between levels, continuous fall protection must be provided. Your supplier can answer questions.

This Technical Bulletin was prepared by members of the Scaffold & Access Industry Association SSFI Committee.

SSFI is a committee comprising manufacturers of shoring, scaffolding, forming, and suspended scaffolding. The committee focuses on engineering and safety aspects of scope products.

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