

Four (4) Choices for Mezzanine Access: A White Paper

Once the decision has been made to expand useable floor space by installing a mezzanine, the next decision is how to access that floor space in an efficient, economical and safe manner. Four (4) alternatives that should be considered are as follows:

1. Rider Scissors Lifts:

- a) Advantages: This solution allows material handling personnel to ride with materials between the various levels. As long as the lift is constructed to comply with ANSI: MH29.1:2012, it will comply with the 2015 International Building Code, it is exempt from local elevator codes and does not require elevator installers. The lift must be controlled by the operator on the platform.
- b) Disadvantages: Travels are restricted to no more than 18 feet. Lowered heights are relatively high and require pits. These lifts are fully assembled at the factory and relatively heavy, therefore installation sites with tight or limited access may be problematic.

2. Non Rider Scissors Lifts:

- a) Advantages: These units have the same advantages as the rider units except the controls are fixed externally at each elevation and may be of the call/send variety. Platform sizes may be smaller than the rider units.
- b) Disadvantages: The minimum platform sizes are dictated by the size of the leg assembly beneath them and may be larger than desired. Speed is generally limited to 8 to 12 fpm for most scissors lifts.

3. Vertical Reciprocating Conveyors (VRC's):

- a) Advantages: These devices offer a wider variety of platform sizes, with standard speeds of 16 to 30 fpm and vertical travels up to 100 feet. These units are more easily configured to custom configurations. The units are assembled on site, so access to tight locations are less of a limiting factor.
- b) Disadvantages: In some jurisdictions the units must be installed by elevator installers and must be inspected by elevator inspectors. In all cases, on site assembly is more time consuming and expensive than scissors lift installations. Riders are never allowed on these units.

4. Package Lifts:

- a) Advantages: These are smaller preassembled VRC's designed for movement of packages smaller than pallet size. They may be single piece tip up or two or three piece stackable units which means faster simpler installation. Standard vertical speeds are 30 fpm.
- b) Disadvantages: Standard vertical travel is limited to 24 feet. Standard platform sizes are for 2 foot cubes and 3 foot cubes although some custom sizes are available. Standard capacities are 200 lbs. and 500 lbs.

All of the lifts mentioned above must be fully enclosed and equipped with interlocked gates. These are integrated into the package lifts.

Most mezzanine applications require moving pallet sized loads up to mezzanines where loads are separated and then smaller loads are moved down to lower levels. The lifts described above provide a variety of ways to accomplish this in a safe and efficient manner.

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