Such Great Heights

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Manufacturers who are considering going to "the next level" must evaluate equipment and ensure their industrial work platforms fit their own needs, as well as OSHA and ANSI requirements.

Much like the rest of the physical world, the manufacturing environment is constantly battling against the challenges of time and space. And when it comes to space constraints, as cost conscious manufacturers know, it can often be more economical to go up than out. But when work platforms, or mezzanines, enter the mix, so do a host of potential safety issues – and these bolt-together structures, whether one, two or three levels high, must be designed and manufactured in accordance with OSHA regulations and the local building code of the installation site.

According to Hubert Schlegel, Marketing Director for Wildeck, the WI-based manufacturer of facility space enhancement, material handling, and protective guarding products, "All States require that the work platform be designed to meet specific seismic codes and the majority require that the structural components be made from non-combustible material. Generally, the type of construction must be the same as required for the building itself. For work platforms, drawings and calculations should be prepared under the supervision of a Registered Design Professional who can stamp and sign the calculations and drawings for the owner and building permit process."

Ultimately, industrial steel work platforms are designed to meet the customer's application needs, says Schlegel. "Whether it is for material storage, conveyor support, in-plant offices, process control rooms overlooking plant operations, or workstation support for manufacturing, assembly, packaging, and more," he says, "each one of these uses requires a careful examination of the anticipated loads and the subsequent selection of work platform framing, column spacing, the type of flooring, and safety components such as code-compliant stairs, guard railing, kick plates to prevent material from falling off the platform, safety gates to guard pallet delivery and removal areas, and overall structural design to support 3-axis overhead traveling cranes or Jib Cranes that are available as an integrated structure from some work platform manufacturers." One thing is for certain: to ensure maximum safety and IBC code compliance, customers should select a manufacturer who is an active member of the MHI and who consistently builds high quality work platforms in accordance with IBC, OSHA, and ANSI MH28.3-2009.

Basic Steps

Become familiar with all applicable codes and safety standards and don't cut

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corners on the structural design of your platform. "Wildeck has designed work platforms for more than 36 years and has earned a reputation for consistent quality, customer service and full compliance with industry codes and standards," says Schlegel. "To be in compliance, the structure should be erected by experienced installers that meet the requirements outlined in ANSI MH28.3-2009."

One specific safety issue on industrial work platforms that Wildeck has addressed is the protection of pallet loading and off-loading areas with its Pivot Safety Gate. This piece of equipment provides an opening for fork truck pallet delivery, then lifts and pivots to close the opening so the pallet can be off-loaded at the upper level by a user. "The Pivot Safety Gate complies with paragraph 6.4.3 of ANSI MH 28.3-2009 which states that 'Any gate that provides an access opening through the guards for the purpose of loading and unloading material onto a work platform shall be designed such that the elevated surface is protected by guards at all times," Schlegel explains.

On existing platforms, users should periodically inspect their structure for wear or damage from fork truck impact at unprotected columns. Besides the aforementioned safety gate, users should ensure the perimeter guard railing and kick plate are in place, and that OSHA- or IBC-compliant stairs and stair landings are equipped with the proper safety railings. A swing gate is also recommended at upper level stair openings.

For Schlegel, there is a lot to consider when the decision is made to incorporate a safe, well manufactured work platform, but the benefits far outweigh the investment and time it takes to implement.

Some of the primary advantages include:

- 1. Expanded available floor space through efficient use of the existing cube in a facility.
- 2. Increased operational productivity and efficiency (e.g., Lean manufacturing).
- 3. Minimal disruption of production during work platform installation.
- 4. Avoiding the need to rent, build, or purchase additional space.
- 5. Reduced moving and relocation expenses.
- 6. Potentially avoiding or minimizing additional property taxes.
- 7. Making optimum use of existing heating, ventilating, and cooling systems.
- 8. Bolt-together construction, which can allow relocation or reconfiguration, in most cases.
- 9. The work platform structure can typically be expanded within the allowable space.
- Provides potential tax advantages through accelerated depreciation versus "new" construction.

But the most important takeaway? "Don't cut corners on the structural design of

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your platform," says Schlegel. This can be the case if an inexperienced metal fabricator is selected to build and install the structure. Permits are often required and calculations made to ensure that the structure is properly designed for the site and the expected loads. Compliance is a priority for a reason: "Safety, of course, is a top concern."

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