Five Steps to Loading-Dock Door Selection

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While plant managers and other decision-makers are often surprised with the many developments in loading-dock doors, the selection process need not be challenging or time consuming. Here are five steps to help guide the door selection process, based on the goals of improved safety, increased productivity, lower maintenance costs and overall satisfaction.

1: Think safety

Use of the wrong door in any plant environment can result in many safety-related problems, ranging from pinched fingers and back injuries to forklift accidents. When choosing a dock door, consider newer designs that use counterbalance systems with enclosed counterweights rather than heavy torsion springs. This can help prevent the kinds of accidents that can occur when metal springs lose their tension and cause the door to drift into the doorway opening and/or close prematurely. The worst happens when a forklift strikes the door because the forklift operator fails (or is unable) to notice that the door is partially or fully closed. The result is worker injury and/or damaged equipment and products.
A related problem is back injury. As spring tension lessens, the door operator bears the brunt of the weight when lifting the door rather than having the springs do the work. The end result is sore and/or damaged back muscles.
By contrast, counterweighted doors help minimize safety risks because they maintain a constant balance without the use of torsion springs. This system eliminates the potential for the door to drift downward into openings, because the doors always remain in perfect balance. In addition, a consistently balanced door makes the task of lifting virtually effortless.

2: Minimize maintenance

Torsion spring-assisted overhead doors have gained a reputation as maintenance-intensive items. However, there are alternatives on the market today that reduce the amount of time and effort it takes to keep a dock door in peak operating condition.
For example, the counterweight counterbalance system found on some newer door designs eliminates door drift-down and the maintenance costs associated with keeping torsion springs in adjustment. The elimination of door drift-down also helps prevent impact damage to the bottom panel that often occurs when a forklift impacts a door that has drifted down into the opening.
Dock doors of any kind are susceptible to repeated impact by forklifts. In some cases, a badly damaged door can shut down a loading dock for a day or longer. Fortunately, some new dock doors include an impactable design that minimizes the potential for damage and the amount of time needed to get a damaged door back in service. Some sectional doors, for example, use roller assemblies that pivot to

release the door sections from the track after being struck by a forklift. The result is reduced damage and downtime. The same door design also allows for reattachment without tools or replacement parts to further minimize downtime.
Impactable doors are a good choice to ensure low maintenance. This is especially true given the frequency of forklift impacts to a dock door, as well as the high costs of downtime associated with a severely damaged conventional overhead door. Impactability aside, it also pays to specify doors with robust, heavy-duty designs that can stand up to normal wear and tear. When choosing sectional doors, for example, don't overlook key items such as steel frame construction, heavy-duty hardware, and facings that are affixed with industrial-strength double-sided adhesive, rather than screwed or riveted to the frame.

3: Consider energy and security

Essentially, dock doors serve as barriers designed to keep climate-controlled air in and thieves, insects, and other undesirables out. When selecting doors, factor in the system's ability to contribute to both energy conservation and security goals.
A door protects against energy loss through insulation and sealing. As such, a reasonable level of insulation (R-value) is needed to prevent heat movement through the door. However, minimizing energy loss requires additional characteristics like tight sealing, even after impact. A door's ability to seal is more important than its R-value. The most effective door designs will seal the full perimeter, as well as the space between all panel sections. By the same token, impactable doors can be quickly reset following an impact to maintain the integrity of the seal, thereby helping to minimize energy losses.
Another important consideration is the use of optional energy-efficient weather seals, which prevent gaps at dock-leveler connection points. The resulting lower heating and cooling costs often translate into seal payback within a few months.
On the security front, the need to guard against outside intruders has never been greater. This helps explain why some concern exists about the ability of impactable doors to provide adequate protection. However, impactable doors are equipped with a one-way breakaway feature that allows breakaway to occur only from the inside out. In addition, optional lock-down devices can help prevent the unwanted lifting of the door from the outside, yet retain impactability from the inside out. As a result, the new style of impactable dock door is as strong as the walls that surround them.

4: Choose a reliable vendor

It's always a good idea to choose a door vendor with the proven ability to service its own equipment. Doing so will avoid unnecessary repair delays stemming from equipment unfamiliarity and related issues. Planned maintenance agreements, emergency on-site service, operator and maintenance staff training, and other services are also important considerations that will ensure doors deliver peak performance at all times. Don't be fooled by lower upfront costs because poor quality and after-sale issues can quickly add up over time.

5: Consider all the facts

The key to a solid dock door investment is to consider all the facts outlined above as they relate to your particular needs. Most importantly, don't choose a door based on only attribute or, worse, the lowest possible price. There is too much else to consider.

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