ALLEGION™

Door specs: Take the hard out of hardware

Door hardware is increasingly complicated, as the demands of security have increased. Codes and regulations continue to change, making specifying door hardware more confusing and time-consuming. That's where understanding the key components of specifying hardware will help you add value and relieve headaches.

In order to specify a complete solution, a hardware consultant evaluates every opening in a building from four different aspects:

- Hanging the door
- Securing the door
- Controlling the door
- Protecting the door

Bill Lawliss, Director of Architectural Services at Allegion, provides some key elements to consider for each of these areas to help you better understand what hardware is typically chosen for openings.

Hanging the door

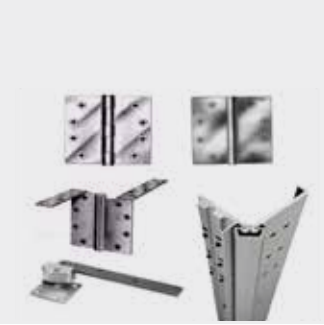
When selecting the hardware to hang a door, there are basically three options:

- Hinges (five knuckle or three knuckle)
- Continuous hinges
- Pivots

"Basic architectural hinges are the most commonly used and generally suffice for about 80 percent of a building's openings," Lawliss says.

Continuous hinges are often chosen for exterior, high-use doors, whereas pivots are typically chosen for heavier doors.

"Pivots are the best and most durable way to hang a door. Because they are the most expensive, they are often only chosen for heavier doors that need greater support," he says. "The weight of the door or other application concerns will drive whether architectural hinges, continuous hinges or pivots are specified."



Securing the door

After you hang the door, next you need to secure it. Assembly or occupancy codes often determine whether or not exit devices must be used. There are also certain applications where exit devices aren't required but are the best solution for an opening.

Mortise locks, he says, provide the best choices for function, trim, keying systems, finishes and durability. These robust locks are typically specified for high-traffic areas, such as schools and hospitals, because they deliver the best lifecycle value to the owner. Cylindrical locks, on the other hand, are generally used in lower use and abuse areas. They are available in both Grade 1 and Grade 2, but have limitations in function, trim, finishes and keying systems.

Keying is another important part of securing the door. In fact, key systems can directly impact the type of lock chosen so Lawliss advises discussing key and access control prior to product specification.

"Asking about the existing and/or desired keying system should be the first question posed to an owner," Lawliss says. "It's that important."

Depending on the level of access control needed, an architect may recommend a patented key system, which prevents duplication of keys without proper authorization.

Additional considerations

Other questions you should discuss with the owner as you specify the best door hardware solution include:

- Will you maintain the keying system yourself?
- If using an interchangeable core, do you want to include furnishing keyed cores (furnish only), or keyed cores (furnish and install)?
- How many keys of each type are needed? (Master, grand master, change keys, control keys, construct / construction control)
- Are the keys or cylinders to be marked for visual key control?
- Are there special functions you need do consider, such as openings that require delayed egress locks or alarms? (Reminder: Check the code and occupancy type to confirm delayed egress is allowable.)

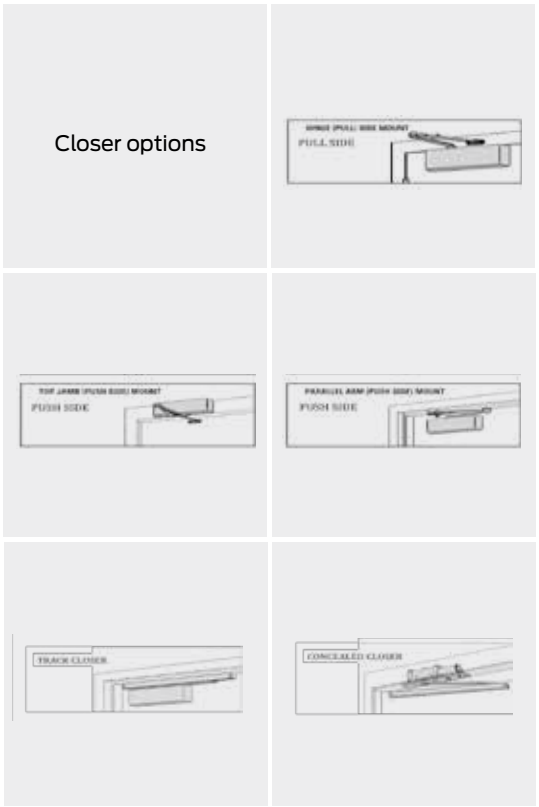
Controlling the door

Controlling the door comes down to the closer. The first question is whether or not to specify one. Just as with exit devices, the use of closers is first determined by code and then application. "A door isn't secure if it doesn't close, Lawliss says." So even if it's not required by building code, you may still find it necessary to ensure the security integrity of your building."

Closers are available in heavy-, medium- and light-duty options, with different mounting and arm options.

"The use of heavy-duty closer arms is recommended in most commercial applications," Lawliss explains.

Additionally, certain environments—such as hospitals or clean rooms—may employ automatic operators so the door can open and close automatically.



Protecting the door

As you can imagine, main entry doors or doors in high traffic areas receive a significant amount of use and abuse over time. With doors being a substantial investment in a building, it's important to protect the longevity of their use. Kickplates, edge cards and wall and overhead stops are all designed to protect the door from dings, damage and, ultimately, from having to replace it.

Choosing the best application

For every opening, the decisions for hardware come down to codes and applications: level of use, environment, and how the opening is to operate (operational description).

"The goal is to help the owner make informed decisions by evaluating the unique considerations for each opening," Lawliss says. "Sometimes the best option may be more in upfront costs, but the savings in maintenance and longevity more than pays for that investment. Those types of decisions strengthen the safety and security of a building."

This is part of a larger AIA/CEP course called, "Take the Hard Out of Finish Hardware." To learn more about the course and AIA-certified courses, download our continuing education brochure.

Learn more about Allegion and our products by calling 877-929-4350 or contacting an Allegion spec writer.

Helpful Hint: Limit the entry points to as few as possible and use door position switches to monitor opening and closing.

About Allegion

Allegion (NYSE: ALLE) creates peace of mind by pioneering safety and security. As a $2 billion provider of security solutions for homes and businesses, Allegion employs more than 7,800 people and sells products in more than 120 countries across the world. Allegion comprises 23 global brands, including strategic brands CISA®, Interflex®, LCN®, Schlage® and Von Duprin®. For more, visit **www.allegion.com.**

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