

The key to closers

CHOOSING THE RIGHT DOOR

CLOSER for any project can be a challenging process for specification professionals. The client's desires, designer's intentions and various acts, codes and performance standards will all have an influence. Then there is the task of studying the products on the market and matching these against the selection criteria.



Door closers have to meet a variety of needs.

SO, WHERE DOES THE ARCHITECT, DESIGNER OR SPECIFIER START?

Obviously, the project will need to comply with relevant legislation and building codes. Where door closers are concerned, the relevant standards pertain to both the performance of the door closer itself as well as to the function and performance of the door in a particular situation. In some cases, the requirements of these various codes and standards may appear to be in conflict, leaving the specifier with a dilemma to resolve.

Given accurate information on performance requirements, the specifier will still find a wide range of products that are suitable for the purpose from a technical viewpoint as well as meeting other requirements to enhance the project's aesthetic appeal, safety and functionality.

THE ADA

The American Disabilities Act requires public accommodations, such as hotels, restaurants, museums, schools, convention centers and other facilities, to provide goods and services to people with disabilities on an equal basis with the rest of the general public.

ADA guidelines state several requirements that need to be taken into consideration:-

- The opening should be not less than 32 inches wide when the door is opened at 90°.
- From the 90° position, it should take the door closer at least five seconds to return the door to 12° from the latch position.
- For an interior door other than a fire door, the maximum allowable force required to push or pull the door open should be five pounds (22.2N).

For fire doors, the opening force should be the minimum allowable by the appropriate administrative authority.

In addition, the closing forces obviously need to overcome the resistance of any latches fitted to the door to ensure that the door closes properly, something which is not stated in the ADA guidelines. This is, of course, one of the key requisites of a fire door; which must also be held closed against intumescent/smoke seals.

These requirements raise a number of points: Firstly, the door closer should allow the door to open to the 90° position; all

closers do this however the designer and specifier should be aware that protruding hardware, such as the boxes and control arms of surface mounted door closers, could prevent a door reaching 90° in confined spaces; entrance doors to hotel rooms being a common example.

On-site conditions, such as pressure variations created by room sizes, open windows and climate control systems may have a detrimental effect on the door closer's ability to meet ADA requirements for closing speed and opening forces. Ideally, the door closer should have an adjustable closing speed which will cater for such situations and should close the door at a controlled rate.

FIRE AND PERFORMANCE

The requirements for a door closer's performance on fire doors can vary between different administrative authorities, although most jurisdictions recognize National Fire Prevention Association (NFPA) standards and guidelines, which refer to test criteria published by Underwriters Laboratories, i.e. UL standards. UL10B, UL10C and UL228 are relevant to door closers.

Where there is an apparent conflict between the NFPA Life Safety Code and ADA requirements, the former will, more often than not, take precedence; hardware fitted to a fire door would not have to meet accessibility requirements if its use compromised the Life Safety Code (Local state rules may also apply). This situation should not arise with door closers, however, and the specifier should be able to find a readily available product that will satisfy the needs for accessibility and fire safety.

In addition, the Builders Hardware Manufacturers Association publishes the American National Standard for Door Controls – Closers, ANSI/BHMA 156.4. The standard is specifically designed for surface mounted and concealed door closers. It covers a variety of performance criteria and grades door closers into one of six sizes according to how they perform against the criteria.

In projects where any of these standards are required, specifiers should make sure that the standard is explicitly written into the master specification. Assurance of a

product's compliance should be sought from the manufacturer in the form of a letter of certification, or similar official confirmation. The compliance of the products supplied and installed should also be verified. Most compliant products will carry a label or permanent mark confirming this.

ADDITIONAL CRITERIA

In addition to published performance standards, there are other attributes that might be desirable in door closers, which stem from the situations in which they are to be used:-

Architects and interior designers requiring a clean appearance to the door and overall decorative scheme would do well to consider concealed door closers, which lack the unsightly control boxes and arms of surface mounted closers.

In healthcare projects, hygiene is particularly important. Specifiers might consider door closers, such as PERKO POWER™, which do not present significant surface areas on which detritus and germs can accumulate.

In areas where the door closer may be susceptible to vandalism, thereby endangering the future performance of the door, concealed closers, especially jamb-mounted designs, do not present a visible temptation to would be vandals.

Jamb-mounted closers like PERKO POWER™ are also enormously popular internationally in secure and psychiatric accommodation where their ability to be mounted towards the bottom of the door means they do not provide a point of suspension for ligatures. A jamb mounted closer is highly suitable for shaped door heads, whether these are rounded or oval.

Away from deliberations over product and application, it would not be unreasonable to suggest that careful consideration should be given to the ethos and reputation of the manufacturer; product design, quality and reliability will be important, as will the ability to offer expert advice on product specification and use.

Choosing a reputable manufacturer, such as Samuel Heath, will add confidence to the product selection and assure client satisfaction.

WWW.PERKOPOWER.COM
(212) 599 5177.



AESTHETIC ASSURANCE

THE REDEVELOPMENT OF the exclusive South Lodge Hotel benefitted from the performance and aesthetic advantages attainable with PERKO POWER™ controlled, concealed door closers.

Interior designer, Marilyn Cooper stipulated PERKO POWER™ to ensure that her vision remained intact. She explains, "We did not want to spoil the appearance and ambience of the rooms by encumbering the doors with mechanical devices that would look out of place. PERKO POWER™ offered the perfect solution."

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SAFETY IN EDUCATION

PERKO POWER™, the controlled, concealed door closer is gaining favor internationally with increasing numbers of educational establishments thanks to the benefits that the closer's concealment offers.

The potential for door controls to be vandalized is a very real risk in educational facilities and the concealed nature of PERKO POWER™ presents little opportunity for the vandal, or prankster; to damage its mechanisms and render the door useless in case of fire.

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HEALTHIER HEALTHCARE

TOTALLY CONCEALED WHEN the door is closed, PERKO POWER™ is becoming popular with specifiers in the healthcare sector on international projects.

With cleanliness and hygiene paramount considerations, the closer's concealment offers minimal surfaces on which dust and potentially harmful detritus can accumulate. This concealment and the door closer's ability to be mounted towards the bottom of the door also make PERKO POWER™ suitable for anti-ligature applications, such as in psychiatric facilities and secure units.

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