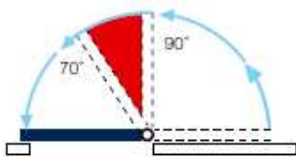
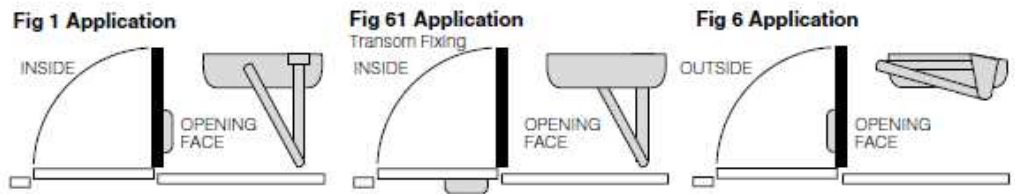


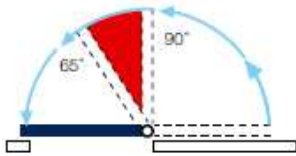
Door Closers - Standards and Certification.

Applications



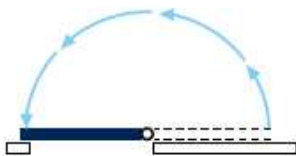
Backcheck

Backcheck offers resistance to opening between 70° and 90° when the door is opened with excessive force. Useful in all situations. Helps prevent damage to building and door frames, particularly where opening is restricted. NOTE: Backcheck is not a substitute for door stops which should be fitted wherever possible.



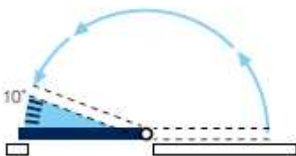
Delayed Action

Delayed Action slows down the closing speed of the door between approx 90° and 65°. The amount of delay can be adjusted and de-activated altogether. Ideally suited for applications, such as care homes, where people need a greater length of time to exit doorways.



Controlled Closing

All ARRONE® door closers have an adjustment valve which allows the closing speed to be controlled. This is effective throughout the whole closing cycle except where delayed action or latch action are activated.



Latch Action

Latch action provides for the adjustment of the last 10° (approx) of the closing cycle. This allows the closer to be adjusted to overcome a latch or intumescent seal.

Slide Arm Application

Can be used where it is undesirable to have a projecting arm. Consists of a single arm connected to a channel mounted above the door. (Not suitable for doors with projecting architraves).

Drop Plate

Allows a door closer to be fitted where the top rail of the door is too narrow to allow normal fitting. The drop plate is first attached to the door and then the closer attached to the drop plate.

Standards and Certification

BS EN1154:1997 – The European Standard for the performance of controlled door closing devices.

Providing details on product types, classification by use, test cycles, door mass, corrosion resistance, as well as definitions, product performance requirements, test apparatus, test methods and marking of products.

BS EN1154:1997 Classifies door closers by using a 6 digit coding system.

- 1 Digit 1 – Category of use**
Two categories are defined.
 - grade 3: For closing doors from at least 105° open
 - grade 4: For closing doors from 180° open
- 2 Digit 2 – Number of test cycles**
Only one category is identified.
 - grade 8: 500,000 cycles
- 3 Digit 3 – Test Door Mass/Size**
Where a door closer provides a range of power sizes both the minimum and maximum shall be identified.
* Door size/mass in accordance with BS EN1154:1997
- 4 Digit 4 – Fire Behaviour**
Two categories are defined.
 - grade 0: Not suitable for use on fire/smoke door assemblies
 - grade 1: Suitable for use on fire/smoke door assemblies, subject to satisfactory testing and assessment (See BS EN1634 Part 1: 2000)
- 5 Digit 5 – Safety**
All door closers are required to satisfy the essential requirements of safety in use. Therefore only Grade 1 is identified.
- 6 Digit 6 – Corrosion Resistance**
Five categories are defined.
 - grade 0: No defined resistance
 - grade 1: Mild resistance
 - grade 2: Moderate resistance
 - grade 3: High resistance
 - grade 4: Very High resistance

BS EN1155:1997 – The European Standard for the performance of electrically powered hold open devices for swing doors.

This standard again provides details on product types, classification by use, test cycles, door mass, corrosion resistance, as well as definitions, product performance requirements, test apparatus, test methods and marking of products.

BS EN1155:1997 classifies products using the same 6 digit coding system as outlined in BS EN1154:1997. The only difference being box 3 where BS EN 1154 refers to durability, BS EN1155 refers to hold open power size.

Performance: In accordance with BS EN1154 & BS EN1155

Power size	Max Door Width	Max Door Weight
2* ^(A)	850mm	40 kg
3 ^(B)	950mm	60 kg
4	1100mm	80 kg
5	1250mm	100 kg
6	1400mm	120 kg

^(A) Not to be used on fire resisting doorsets.

^(B) Not recommended for fig 6 application on fire resisting doorsets. Size 4 should be used.

*Size 2 not applicable to BS EN1155.

BS EN1154 - BS EN1155 test reports and certificates are available upon request.

Fire Safety – BS EN1634 Part 1:2000

The European Fire Safety Standard for determining the fire resistance of door and shutter assemblies including hardware designed for installations within openings incorporated in vertical separating elements (doorsets).

Door controls can be assessed to be suitable for use on*:

- FD30 (30 minute) Fire Doors
- FD60 (60 minute) Fire Doors
- FD90 (90 minute) Fire Doors
- FD120 (120 minute) Fire Doors

* See Digit 4 BS EN1154:1997

Fire Doors – Door Controls

The UK Construction Products Regulations require door controls for use on fire doors to be safe and durable.

British/European standards BS EN1154/1155 are the recognised way of demonstrating compliance and they require that an official notified certified body proves both the product and the manufacturers factory production controls, before C.E. Marking can be applied.

With effect from October 2003 European law recommends all relevant door closing devices be C.E. Marked when fitted to a fire door.

CERTIFIRE

An independent third party scheme providing high quality voluntary product conformity certification for the passive fire sector.



CE Marking

C.E. Marking is the easiest route to providing compliance with the latest UK Construction Products Regulations for ironmongery used on fire, smoke and escape route doors.

C.E. Marking indicates that the product has been 3rd party performance/fire tested where applicable and is produced in a factory which has satisfactory production control systems. All of these have to be assessed by an authorised certification organisation.

BS 8300 & Approved Document 'M' Door Controls

The latest updates to BS8300 and DOC 'M' (March 2005) in relation to ironmongery contain the following recommendation with regard to door operating forces, quoting a maximum figure of 30N opening force when measured at 0° (closed) - to 30° and 22.5N when measured between 30° and 60° open. It is preferable that backcheck should not operate before about 80° open and that the maximum closing force should occur between 0° and 15° of final closing.

It is recommended that doors should also be fitted with high performance hinges which can contribute less than 1N friction per hinge.

NB: It should also be noted that when official testing is carried out it is done so under laboratory conditions. Therefore it is not possible to say that the same doorset and associated hardware which conforms in one location will perform identically in another as other local conditions may apply (smoke and intumescent seals along with differential air pressures being the main factors and consideration).

Finishes

Please refer to the fold out section at the rear of the catalogue for the complete range of available finishes.