PRODUCT INFORMATION AND SAFETY ADVICE

For door closer systems with hydraulic damping (overhead door closers and floor springs)

The following information and safety advice are directed both to product fabricators / installers and also operators of doors with door closers. This product information and safety advice sheet **must be carefully read**. It contains important instructions and recommendations for the correct and thus safe fixing and installation of door closers, and their correct and safe operation, including maintenance and repair / refurbishment.

1. Correct usage

Door closers perform the task of re-closing swing doors (doors opening inwardly or outwardly) after they have been manually opened. The closing cycle is performed with hydraulic damping, with the degree of retardation adjustable to requirements. Door closers are used for swing doors of metal, timber, plastics or glass, and various combinations of these and other materials.

2. Functional requirements

In order for door closers to operate efficiently, the doors have to be hung vertically plumb and move easily; the door closer must also be correctly fixed / installed.

For this reason, door closer installation and adjustment of the various functions must be carried out by specialist firms, in line with the manufacturer's data and instructions relating to the product concerned, and also taking into account the structural conditions relevant to the door system.

3. Employment and functions in special applications

Special applications may require the provision of additional functions and features.
Adherence to the following instructions is therefore imperative:

- In the case of fire and smoke check doors, the door closers must meet each of the relevant requirements of **BS EN1154 Annex A, or DIN EN 18263** (or the national equivalent), (door ratings / approval certificates must likewise be complied with as appropriate).
- Swing doors can only be held open with additional special fittings / hardware or with integrated components; for fire and smoke check doors, these special items must meet each of the relevant requirements of **BS EN1155**.
- In the case of particularly unfavourable local conditions (wind disturbance), door closers must be provided with higher closing strength / torque values. In the case of outwardly opening swing doors in particular which are exposed to the wind, the door closers must be provided with a backcheck feature to help protect the door and its surroundings from damage.
- Door closers fitted to swing doors for wet rooms, for unprotected external installation and for applications in environments with aggressive, corrosion-promoting atmospheres, and also door closers which are exposed to high or extremely low temperatures, must be of the appropriate special design.

Installation boxes (cement boxes) for floor springs must be protected from contamination once they have been fitted in position. If the floor springs are exposed to penetrating water (e.g. in wet rooms or in the case of external doors with no rain protection), the space between the cement box and the floor spring housing must be sealed with a suitable grouting compound.

4. Misuse

The product is deemed as having been misused if it is not employed as indicated under 'Correct usage' as above. The manufacturer particularly regards the following as constituting misuse:

- Employment for purposes other than for the closing of doors.
- Employment of door closers in applications for which the size of closer (spring strength / torque rating) does not correspond to the manufacturer's recommendations.
- Usage in spite of incorrect or unsatisfactory installation / fixing and / or adjustment.
- Employment of door closers under foreseeable conditions of excessive heat (over 40 degrees C), or excessively low temperatures (below –15 degrees C).
- Use of door closers and accessories not tested / approved in accordance with EN1154 Annex A, DIN 18263 or equivalent national regulations, on fire and smoke check doors.
- Usage of doors, the closing sweep of which are blocked by obstacles, or for doors of which the closing cycle is hindered e.g. due to the seals sticking / binding, rubbing on the floor, misaligned hinges etc.
- Non-compliance with the functional requirements indicated in sections 2 and 3 above in relation to operations in general, and also employment in special applications.

Consequences of misuse

- Functional impairment (door does not close, or is difficult to open).
- Destruction of the door closer (e.g. door closer becomes broken, accompanied by hydraulic fluid egress).
- Damage to the door / doorframe (e.g. hinge breakage).

WARNING

Misuse can also be hazardous, particularly in the case of doors without hydraulic damping control (danger of injury).

5. General hazards in relation to swing doors

In the case of swing doors, there is a general **danger of injury** if, during the closing cycle, a part of the body (e.g. hand or fingers) is caught between the door frame and door leaf.

The controlled closing of a swing door by a door closer does not mean that this danger no longer exists.

6. Product characteristics

In Europe, the requirements and performance criteria governing the use of door closers on standard / general doors are defined in **EN1154**.
Similarly, the criteria governing the use of door closers and co-ordinators on fire and smoke check doors are defined in **EN1154 Annex A, DIN18263 Part 1**, and **EN1158**.
The criteria governing the use of door closers with hold open, with and without free-swing action, are defined in **EN1155**.

7. Product maintenance within the framework of correct usage / correct practice

Regular inspection and maintenance of the door closer by suitable specialist firms is one of the main prerequisites in satisfying the correct usage / correct practice requirement. The closer manufacturer considers the following to be necessary in this respect:

- **Regular inspection of safety relevant components of the door closer to determine correct location / fit and the extent of any wear which may have taken place.**
- **Checking of the settings governing closing speed etc.**
- **Greasing all the moving parts on the arm / spindle assembly of the door closer / floor spring, and on the door itself.**
- **Checking for ease of door operation.**
- **Checking of fixing screws to ensure they are tight and secure.**
- **Compliance with the prescribed statutory / legal inspection, monitoring and maintenance activities, in the case of door closers with special functions (hold open devices, mechanisms and systems).**

The scope and frequency of maintenance measures such as these will depend on the type and use of the swing doors concerned. Under conditions of average usage, the manufacturer considers door closer maintenance to be necessary at least once a year.

IMPORTANT

- A failure to maintain the product may result in the non-detection or late detection of foreseeable or already existing malfunctions. This can lead to the same consequences and hazards described above under ‘Misuse’, section 4.
- Door closers and / or defective components must be replaced immediately i.e. as soon as the functional reliability can no longer be ensured.
- As soon as there is a suspicion of the door closer malfunctioning, a suitable specialist firm should be requested immediately to perform the necessary checks and component replacement work.
- In maintenance work, cleaning agents should not contain corrosion promoting or damaging constituents. Otherwise, they may cause malfunction or premature failure of the closers due to corrosion.

8. Additional product information for the user

There is additional information available for the user to enable him to ensure the correct usage of Dorma products.

- catalogues and brochures
- specification texts
- fixing instructions, installation drawings, operating instructions
- EN1154, EN1155, EN1158, and DIN 18263 parts 1 and 4 are available from national standards bodies.

Supplementary product information can be requested from your DORMA agent / representative at any time.

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SG4 0AB

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Fax 01462 477601

INSPECTION, TEST, MAINTENANCE AND REPLACEMENT

DORMA products have been manufactured to give long and trouble-free service. Regular inspection of the door closer system and its accessories by a competent specialist organisation ensure that any necessary adjustments are made, and that you get the very best from our products.

The scope and frequency of inspection will depend on the type, frequency or use, and operating conditions of the door closer system involved. Under conditions of normal usage however, the Company considers that ***at least an annual*** inspection, test and maintenance schedule should be carried out as follows:

Inspection of safety relevant components of the door closer system and its accessories to determine continued safety of fixings and the extent of any wear which may have taken place.

Checking of the closing speed and any other hydraulic functions and adjusting the setting if required.

Lubrication of relevant moving parts including the door hinges and latch.

Checking for ease of door operation.

Checking of special accessories particularly hold-open devices whether or not electro-mechanical in operation.

Replacement parts as necessary using ***only parts/components manufactured or approved by the Company.***

During maintenance work specialist organisations should ensure that only safe and suitable cleaning agents are used which contain no corrosive or damaging constituents likely to damage components of the door closer system. In order to maintain the appearance of DORMA high quality finishes, the Company suggests that they are wiped clean of dust and dirt as necessary whit a soft cloth. Do not use abrasive cleaners or metal polishes.

If a door closer system shows signs of malfunction a competent specialist organisation should be called in to perform the necessary checks and component replacement.

If the closer is not performing as required, contact **Access Control and Maintenance Engineering Ltd** at the following address

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Tel 01462 477602

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