

- According to DIN EN 16005 Power-operated doors
- Hospitals and nursing homes, shopping centres, airports, schools, public buildings

Plan and provide safety.

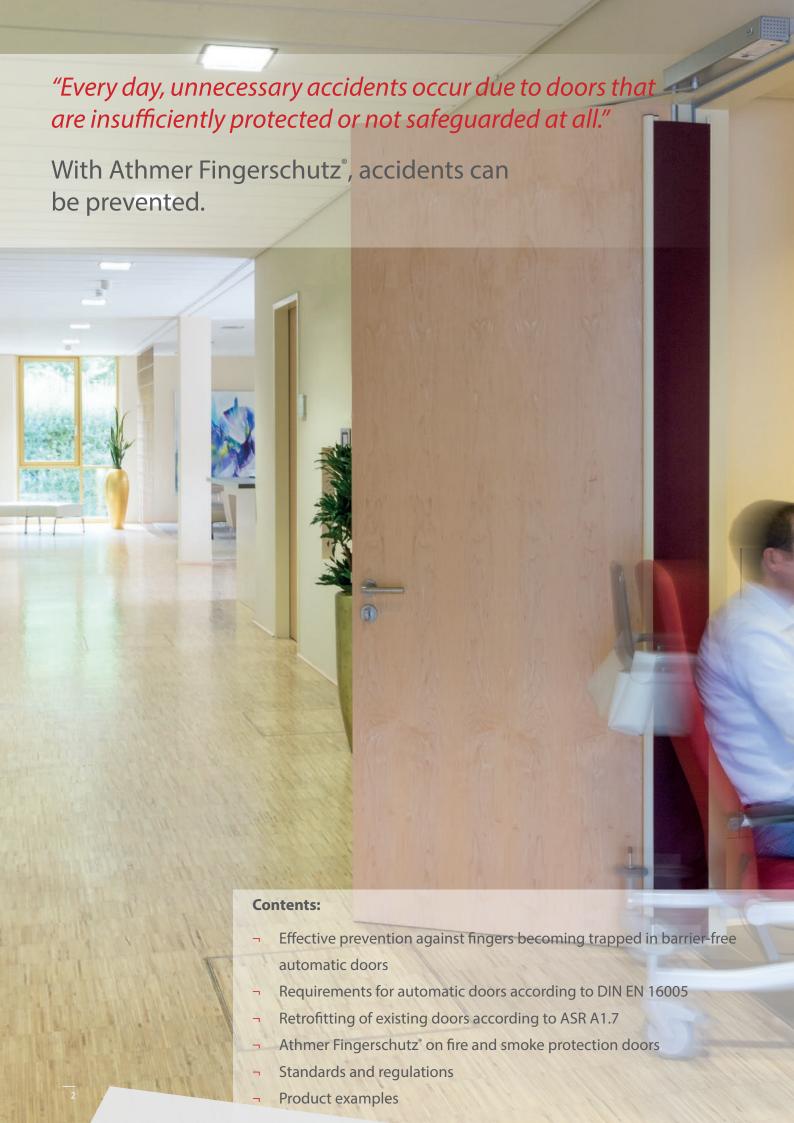














Effective prevention against fingers becoming trapped in barrier-free automatic doors

Every day, unnecessary accidents occur due to doors that are insufficiently protected or not safeguarded at all. In the context of inclusion and increasing convenience, more and more doors are being upgraded to be barrier-free with an automatic drive. Often the protection of the hinge sides is neglected or simply forgotten. This is rather short-sighted, because in barrier-free environments according to DIN 18040-1, "Doors must be clearly recognisable, safe to pass through, easy to open and close."

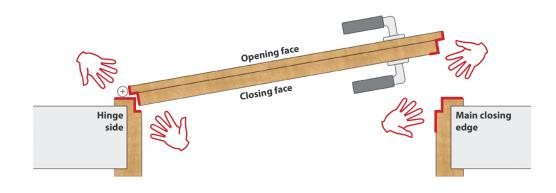
Automatic, or power-operated doors in accordance with DIN EN 16005 - Safety in use, pose a hazard to vulnerable people, such as children, the elderly or disabled people, in all areas that are open to the public. Insufficiently protected doors can result in serious injury, potentially including severed limbs, which can lead to lifelong disabilities.

These injuries and accidents can be prevented – with Athmer Fingerschutz*, fingers catching between the door leaf and the frame can be effectively prevented. Numerous planners, fabricators and building operators have been relying on the proven Athmer finger protection systems for over 30 years, because they offer added value in the form of reliable safety.

Danger points

DIN 18040-1

DIN EN 16005



Certificates







www.tuv.com

- Certificate for 1 million test cycles
- TÜV/GS tested according to EN 16654
- Test certificates on request





Requirements for automatic doors according to DIN EN 16005 - Power-operated pedestrian doorsets - Safety in use

Power-operated doors must open and close safely in order to ensure safety in use. For this purpose, a risk assessment must be carried out by the manufacturer of the door system during planning.

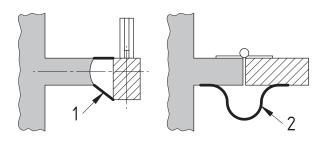
Power-operated door systems operating in the low energy range can be used for certain applications without safety sensors. However, the danger of crushing and shearing at the hinge side still exists and must be detected and excluded in all cases.

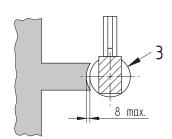
DIN EN 16005, 4.6.1 b)

Therefore, according to DIN EN 16005 – 4.6.1 b), "Danger points between the door leaf and frame, which pose a hazard due to entrapment of fingers, are protected up to a height of 2 m."" and in accordance with EN 16005 - 4.6.3.4, "Danger points at the hinge side between the sash and the frame must be covered with finger protection roller blinds, for example".

DIN EN 16005, 4.6.3.4

Safeguarding in accordance with DIN EN 16005 - 4.6.3.4





- 1 Rubber cover
- 2 Rubber or fabric cover = Athmer Fingerschutz[®]
- **3** Profile

Sole protection of the hinge side with sensors should be reconsidered, because these systems have weak points and do not offer improved safety. Test institutes point out in type examination certificates that in areas where children could play (e.g. in a kindergarten), in addition to sensory protection, mechanical solutions should also be considered!

Athmer finger protection systems in special lengths for automatic door applications are the right solution. Provide safety!

The advantages of Athmer Fingerschutz[®] for safeguarding the hinge side of automatic doors are obvious:

Advantages

- Athmer Fingerschutz[®] is always in action and offers improved door gap cover
- Athmer Fingerschutz* is an inexpensive solution and also trouble-free and no-maintenance
- Athmer Fingerschutz^{*} is universally usable for all doors and extreme environmental conditions such as dust, cold and heat

Image: In action in a shopping centre "The building operator is legally obliged to keep his power-operated door system in a safe condition for use."

Athmer Fingerschutz[®] is suitable for safeguarding automatic doors over the entire height.





Retrofitting of existing doors according to ASR A1.7 Operator responsibility

Operator responsibility

The building operator is legally obliged to keep his power-operated door system in a safe condition for use. In the event of damage, which may result from a safety-related obsolete power-operated door system, the operator must reckon with civil law consequences and can be held liable in accordance with § 823 BGB (German Civil Code).

If during regular maintenance by the service technician it is determined that protective devices are missing or do not correspond to the current state of the art, this must be entered in the test logbook and communicated to the operator. In order to comply with the workplace regulation ASR A1.7, the operator must also retrofit older power-operated doors that are already in stock. If this is not done, the operator bears the risk of an accident.

The argument of right of continuance to avoid retrofitting does not apply, because the power-operated door must be safeguarded according to the state of the art, in this case EN 16005 in conjunction with ASR A1.7. For this reason, all measures to be taken must clearly aim at eliminating and permanently avoiding the risks associated with the operation of a power-operated door system during its service life.

The workplace regulation ASR A1.7 Doors and gates, as well as the DGUV Information 208-022 - for doors and gates require: "For power-operated doors and gates, effective safeguards against mechanical hazards must be provided up to a height of 2.50 m above the floor or any other permanent access level. The EN 16005, 4.6.9 Separating protective equipment such as housings, covers, panelling, fixed protection wings must be designed so that: Persons are unable to reach danger points that are located at a height of up to 2.5 m above the floor surface."

For the installer, the question is - up to what height must safeguards be provided? According to EN 16005 - 4.6.1 b) a height of 2 metres is sufficient. In cases of doubt, the building operator should have a risk assessment carried out by service professionals on his power-operated doors in order to ensure that his door is safe and complies with the current state of the art in terms of traffic safety requirements (personal safety).

On the basis of a thorough analysis of risks - user groups, frequenting (entrances, corridors, etc.), Athmer therefore recommends that automatic doors should always be safeguarded over the entire height as far as possible.

Right of continuance

ASR A1.7



"Finger protection must not be installed on a fire or smoke protection door without the approval of the door manufacturer / system provider!"

Athmer Fingerschutz[®] is suitable for use on fire and smoke protection doors.





Athmer Fingerschutz® on fire and smoke protection doors

Procedure - including for retrofitting

Athmer finger protection systems are also suitable for use with fire doors and smoke protection doors. Numerous fire tests have been carried out successfully with door manufacturers / system providers. For more than 10 years now, Athmer finger protection systems have been fitted on fire doors and have proven themselves in use.

Finger protection systems are not subject to any standard, as they are neither defined in EN16034 nor in EN1634. Retrofitting of fire and smoke protection doors is therefore not regulated by standards. Finger protection must not be installed on a fire or smoke protection door without the approval of the door manufacturer / system provider. Without the approval of the door expires in the event of a structural change. The installer / fitter who installs the finger protection system must contact the door manufacturer in advance. Door manufacturers / system providers are familiar with Athmer products and their requirements. By contacting them, they can provide information about a possible retrofit and can issue a written approval.

Installation approval

The following three options are available for fitting Athmer Fingerschutz® to fire and smoke protection doors:

- Approval of the door manufacturer / system provider based on a successfully passed fire test carried out by the door manufacturer / system provider
 - ¬ Entry in the general building control approval (abZ)
- **2.** Release by the door manufacturer / system provider due to a non-substantial modification
 - according to assessment / experience of the door manufacturer
- **3.** Approval by the highest building control authority / fire inspectorate on site, taking into account expert opinions and possible substitute measures
- Release and approval in individual cases (ZiE)

Athmer will be pleased to answer any further questions you may have.

Standards and regulations

DIN EN 16005

Power-operated pedestrian doorsets - Safety in use - 2013

DIN 18040-1

Construction of accessible buildings - Design principles - Part 1: Publicly accessible buildings, 2010

ASR A1.7

Workplace regulation - Doors and gates, 2009

Image: In action in public areas **DGUV Information 208-022** for doors and gates, 2015



"The argument of right of continuance to avoid retrofitting does not apply because power-operated doors must be safeguarded to comply with the state of the art."

With Athmer Fingerschutz, your doors are safe according to DIN EN 16005 and ASR A1.7.



Product examples

Athmer Fingerschutz® Hinge side, closing face

- ¬ Protective roller blind that automatically maintains constant tension
- ¬ Verified long-term reliability 1,000,000 cycles
- ¬ Fire retardant synthetic fibre cover
- ¬ Standard colour: silver anodised C-0; individual colours available
- ¬ Standard lengths for power-operated doors 2,015 mm, NR-32 UniSafe 2,000 mm
- Travel length 260 mm; Optionally: Type XL with a travel length of 320 mm

Closing face



NR-25



- A protection system with decades of proven performance
- ¬ Compact form

NR-30



- ¬ Easy to install
- ¬ Innovative design
- Concealed snap-on fastening



NR-32 UniSafe®



- ¬ Improved door gap cover
- KLICK system with concealed screw connections for fast installation and dismantling
- ¬ Problem-free release possible on site
- One design for all applications

Ram protection (optionally for NR-32)



- For demanding environmentse.g. airports or hospitals
- ¬ Force-deflecting element as additional protection for the door and frame

Opening face

Opening face protective profiles Hinge side, opening face

- Reliable safeguarding of the gap between door leaf and frame on the opening face
- ¬ Standard colour: silver anodised C-0; individual colours and lengths available

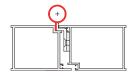


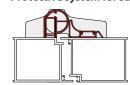
For doors with a flush fit profile

BO 20, BO 22



Protective system for surface-mounted hinges on metal doors





In action in the hotel and catering sector

For more products, visit www.athmer-fingerschutz.de





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