



User Manual

for industrial sectional doors with torsion springs

Contents

User Manual

1	General	3
1.1	Symbols and/or warning signs	3
1.2	Concepts and hazards	4
1.3	End user obligations	5
1.4	Warranty and liability	5
2	Application	5
3	Operation	5
3.1	Manual operation	5
3.2	Electric drive	6
3.2.1	Operation via control panel	6
3.2.2	Operation via hand transmitter	6
3.2.3	Disengaging the drive (emergency chain)	6
3.3	Chain drive	6
4	Access door	7
5	The safety of your sectional gate	8
5.1	Spring break protection	8
5.2	Cable break protection	8
5.3	Loose cable protection	8
5.4	Bottom edge protection (closing edge protection)	8
6	Maintenance	8
6.1	General	8
6.2	Care	8
6.3	Door panel care	8
6.4	Inspection and/or overhaul	8
6.5	EC declaration of conformity	9

User Manual

To prevent serious personal injury, all directions and instructions in this manual should be carefully read and observed.

1. General

- This manual describes the operation of your sectional gate. It may be necessary to consult other user manuals such as the one for the drive (if applicable).
- Your sectional gate was designed in accordance with the latest European CE standards. Check whether the CE mark has been affixed/completed.
- Adding or removing parts may have an adverse effect on the operation and thus the safety of your sectional door.
- Unless stated otherwise, all measurements are in millimetres.
- We reserve the right to modify specifications without written notice.

1.1 Symbols and/or warning signs.

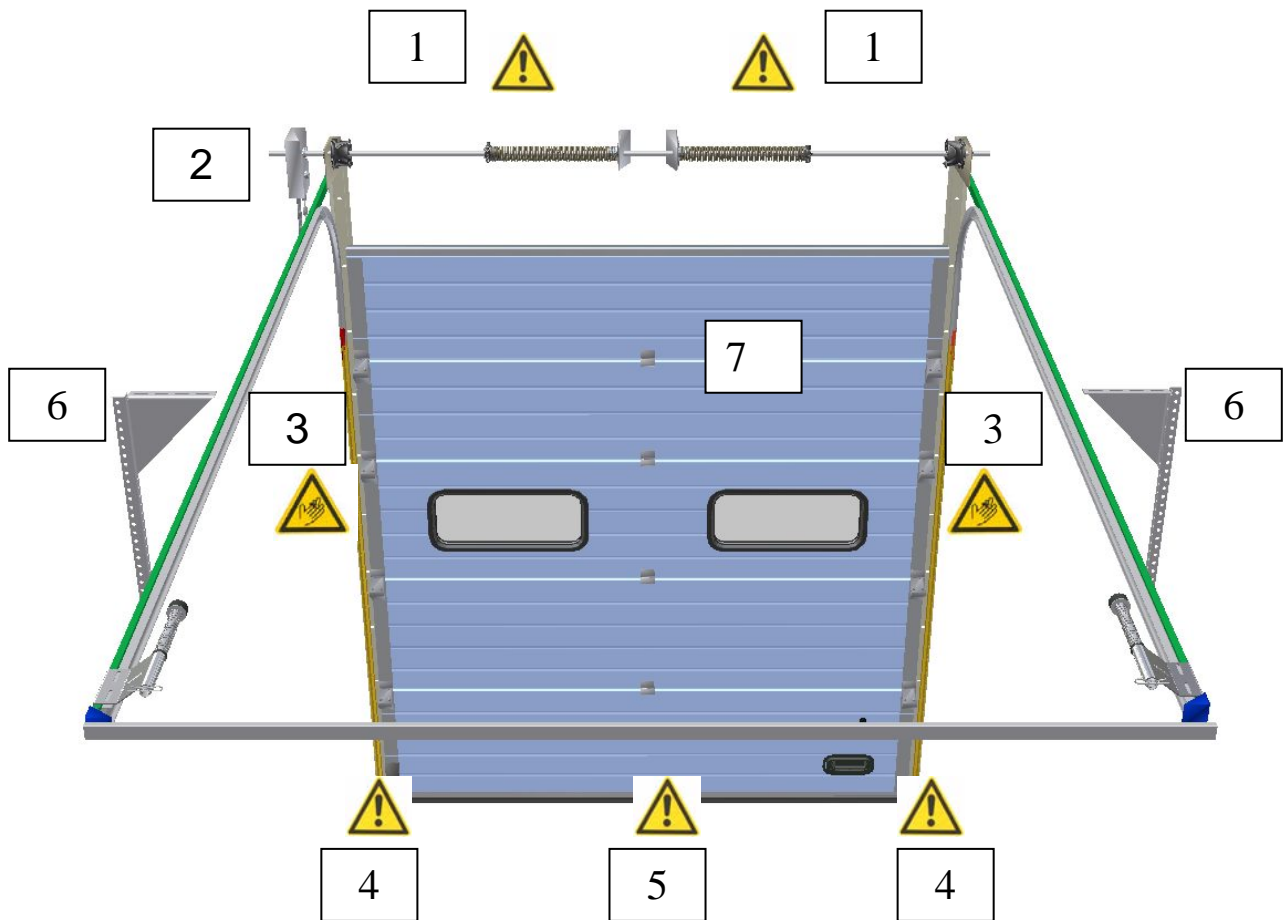







General DANGER !! symbol
ATTENTION !! symbol



Symbol for CUTTING, SNAGGING, CRUSHING, PINCHING DANGER from moving parts!

1.2 Concepts and hazards



	Description	Danger
	1 Torsion springs with spring break protection	Torsion springs are highly tensioned. Never attempt to repair, adjust etc.
	2 Drive, hand chain hoist pictured	
	3 Guide track, rollers etc.	Danger of pinching, catching, etc. Never lean your hands against the guide tracks.
	4 Base console (cable break protection)	These are highly tensioned. Never attempt to repair, adjust etc.
	5 Rubber seal (bottom edge protection)	Never stand underneath while door panel is moving
	6 Drop down	
	7 Door panel (panels)	Large, heavy moving object, always maintain eye contact while operating your sectional gate

1.3 End user obligations



- Follow instructions in this manual
- This sectional gate should only be operated by suitable persons. Never let children operate and play with it.
- Essentially, no people, animals or other objects may be positioned in the opening while the sectional gate is in operation.



- When operating the sectional gate, it should always be in sight.
- Never lean against the door panel and/or guide track, take care that fingers do not get caught in moving door panel and/or other moving parts.



- In case of failure, always consult a qualified company!
- Do not make any alterations to the sectional gate!
- Don't add or remove weight increasing or decreasing parts to the sectional gate.
- Never stand on hinges, stiffening profiles, handles or other parts.



- Never climb up using the door panel (panels).
- Never use the sectional gate as a hoist.
- Never interfere with a moving sectional gate or moving parts!



- If the electric drive no longer functions, the sectional gate should always be operated manually.
- Ensure that your sectional gate is fully functioning, and have the safety features checked regularly (when first installed and at your own discretion, but at least once a year) by a qualified firm, and ask for written confirmation!



- At least once a month, visually inspect your sectional gate for damage.

1.4 Warranty and liability

Alterations to the sectional gate or alterations to the drive that are not in compliance with this manual will invalidate the warranty and thus release the manufacturers from any liability.

This also includes damage resulting from incorrect operation, failure to follow the instructions in this manual and/or poor maintenance and/or care of the sectional gate.

2. Application

The sectional gate is designed for closing off an entrance/exit to a building. Using the sectional gate for any other purpose is not permitted.

3. Operation

The sectional gate may be opened and closed using the following systems:

- Manual operation
- Electric drive
- Chain drive

3.1 Manual operation

Working principle:

The sectional gate is operated by hand, usually using a rope.

Opening:

The sectional gate is opened by taking hold of the handle/rope, pulling the door upwards and then pushing it. This pulling and pushing should be done 'sensitively' and not forcibly. The door should be easy to stop manually.

Closing:

The sectional gate is closed by taking hold of the handle/rope and pulling downwards.

Do not use any other means to operate the sectional gate.

Never pull or push hinges or panels!



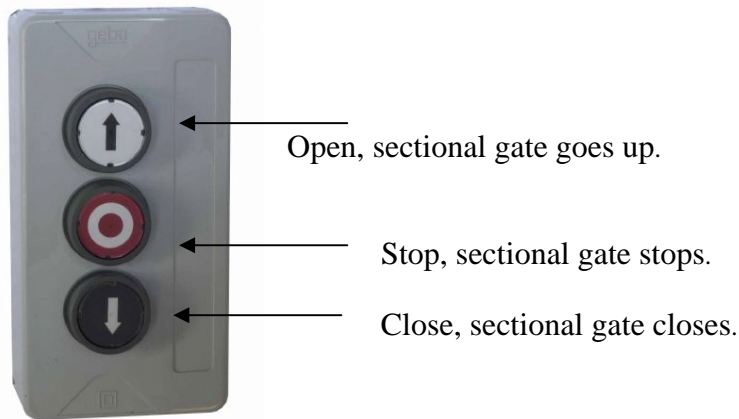
3.2 Electric drive

Working principle:

The sectional gate is powered by an electric motor connected to the sectional gate. The electric motor is directly connected to the shaft.

3.2.1 Operation via control panel

Pictured below is an example of a control panel.



3.2.2 Operation via hand transmitter



Press the programmed button to open the door, see control/drive user manual.

Press the programmed button to close the door, see control/drive user manual.

Some control systems do not allow an open or close cycle to be interrupted, see control/drive user manual for more information.

3.2.3. Disengaging the drive (emergency chain)

The emergency chain is designed for opening and closing the sectional gate during a power cut or drive failure.

Method of operation:

- isolate power
- unlock the drive.
- pull the chain to open or close the door.



Please Note: Operation depends on the type of drive. The example refers to a drive with lock and chain, but there are other types such as crank transmission. For correct instructions, please refer to the drive manual.

3.3. Chain drive

Working principle:

The sectional gate is powered by a chain hoist connected to the shaft of the sectional gate. The connection between the chain hoist and the shaft can be either direct and indirect.

Opening:

The sectional gate is opened by slowly pulling the chain in such a way that the speed can be controlled. After use, the chain should always be locked using a chain holder.

Closing:

The sectional gate is closed by slowly pulling the chain, in such a way that the speed can be controlled. After use, the chain should always be locked using a chain holder.

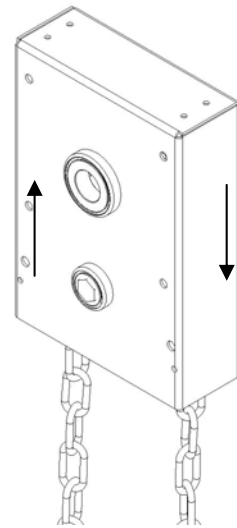
Comments:

A chain holder is not suitable for an unbalanced sectional gate.

Call a qualified firm to correct the imbalance!

Always open and close the sectional gate using the chain because of running chain.

Opening the sectional gate



4. Access door

The access door is designed for people entering and exiting a closed sectional gate.

In case of a manually or chain operated sectional gate, the access door should always be closed before it is set in motion.

A powered door will only work if the door is closed (contact switch).

5. The safety of your sectional gate

The sectional gate is fitted with a number of safety features briefly discussed here.

These should be checked at least once a year by a qualified firm!

If a protection device (spring break or cable break protection) was triggered, it may only be reset or replaced by a qualified firm.



5.1 Spring break protection

A spring break protection device prevents the door panel from falling. The shaft and therefore the door panel are blocked. The spring break protection device is triggered immediately upon a spring breaking.

NEVER reset it yourself! Call a qualified firm!



5.2. Cable break protection

A cable break protection device prevents the door panel from falling. A blade is inserted into the guide track to prevent the door panel from falling. The cable break protection device is triggered immediately upon a cable breaking.

NEVER reset it yourself! Call a qualified firm!



5.3. Loose cable protection

A loose cable protection device is only available in a powered door.

A loose cable protection device prevents the cable running off the drum.

A loose cable protection device is triggered as soon as the tension in the cable is removed. As soon as the tension increases, the sectional gate will be back in operation. When this occurs, call a qualified firm to remedy the problem. There may be various causes.

5.4. Bottom edge protection (closing edge protection)

This optical or pneumatic closing edge protection prevents people or objects being squashed by the closing edge of the door panel.

It operates on the principle of a “switch”. The moment a person or object is hit, it is detected by the optical eyes or by a pressure difference in the rubber seal, which switches the drive to stop and reverse; the sectional gate will then move in the opposite direction.



Your gate must be fitted with a bottom edge protection device to comply with CE standards.

6 Maintenance

A long life for your sectional gate can only be guaranteed if it is regularly serviced, maintained and checked.

6.1 General

If maintenance is not carried out, if it is neglected or done by an unqualified firm, the supplier who installed the sectional gate cannot be held responsible for the consequences of this.

The sectional gate should be inspected by a qualified firm at least once a year, and should also be documented in writing.

6.2 Care

Below are a number of minor maintenance measures that need to be taken, possibly by yourself.

- All hinges, rollers and bearings should be lubricated with one drop of oil (SAE 20 quality).
- Grease the roller shafts.
- Grease the cables.
- At least once a year, check all screws and bolts and tighten if necessary.
- Check cables for cracks or damage. If damaged or showing cracks, you should immediately contract a qualified firm to have them replaced.
- Regularly clean the guide tracks.
- Keep the door opening free of debris.
- Test your door for balance, raise the sectional gate to various height positions and let go. The sectional gate should remain in position. If this is not the case, contact a qualified firm to have it re-balanced. (If powered, first disengage the drive.)
- Consult the drive manual for general care of your drive.

6.3 Door panel care

The panels can be cleaned inside and outside using water and a neutral soap. However, please take care not to get or leave water or moisture on the electric parts on the inside. Never use a high pressure cleaner!

Make sure no grease or oil is removed from the rollers etc.

Windows should only be cleaned using clean water. Never clean without water, to avoid scratching!

Aluminium profiles can be cleaned using a special aluminium cleaner such as Autosol ®.

Clean and maintain side seals using rubber spray. This prevents the side seals from freezing to the door panel in winter and keeps the rubber elastic.

6.4 Inspection and/or overhaul



Your sectional gate should be inspected at supplier specified service intervals, but **at least once a year**, by a qualified firm.

6.5 EC MANUFACTURER DECLARATION / EC DECLARATION OF CONFORMITY

We hereby declare that the products described below conform to the relevant fundamental requirements of the applicable EU directives, both in its basic design and construction as well as in the version marketed by us (Inspection bodies: TÜV Nord Cert 0032 and SP 0402). This declaration will cease to be valid if any modifications are made to this product without our express approval or if a door operator or panel other than those indicated below or other products than those described by Doco-International are used.

Product Description

Manually or electrically driven sectional overhead door DOCO SL/HL/VL

Panels in finger-safe execution:

ThyssenKrupp Hoesch, Ryterna, Bremet, Apco/Kingspan, Tekla/Teckentrupp

Motors:

GfA SE series

Closing edge safety device

Various Fraba and Gelbau models, all of them in accordance with RWTÜV Certification no. 2674/04.

Manufacturer:

Doco-International BV

Nusterweg 96

NL-6136 KV SITTARD (NL)

Tel. +31-46-4200666

Fax. +31-46-4526894

Relevant EU Directives applied:

- Machinery Directive 98/37/EC
- Construction Products Directive 89/106/EEC
- EMC Directive 89/336/EEC
- Low voltage Directive 73/23/EEC

Harmonised Standards applied:

- EN 13241-1 Doors - Product Standard, Part 1
- EN 12604 Doors - Mechanical aspects
- EN 12453 Safety in use of power operated doors - Requirements
- EN 12635 Doors - Installation and use
- EN 12978 Doors and gates - Safety devices

Sittard, 24. January 2006