

# TS



GEZE TS 5000

Overhead rack and pinion door closer with guide rail, DIN 18 263 Part 2, size range 1-6 to EN 1154

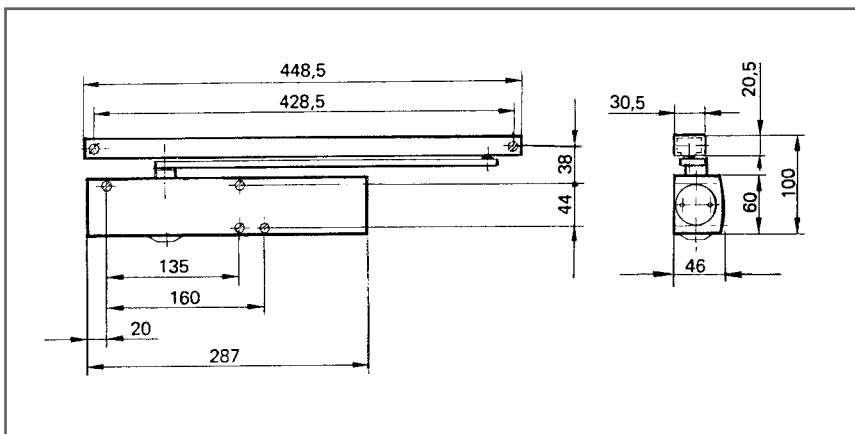


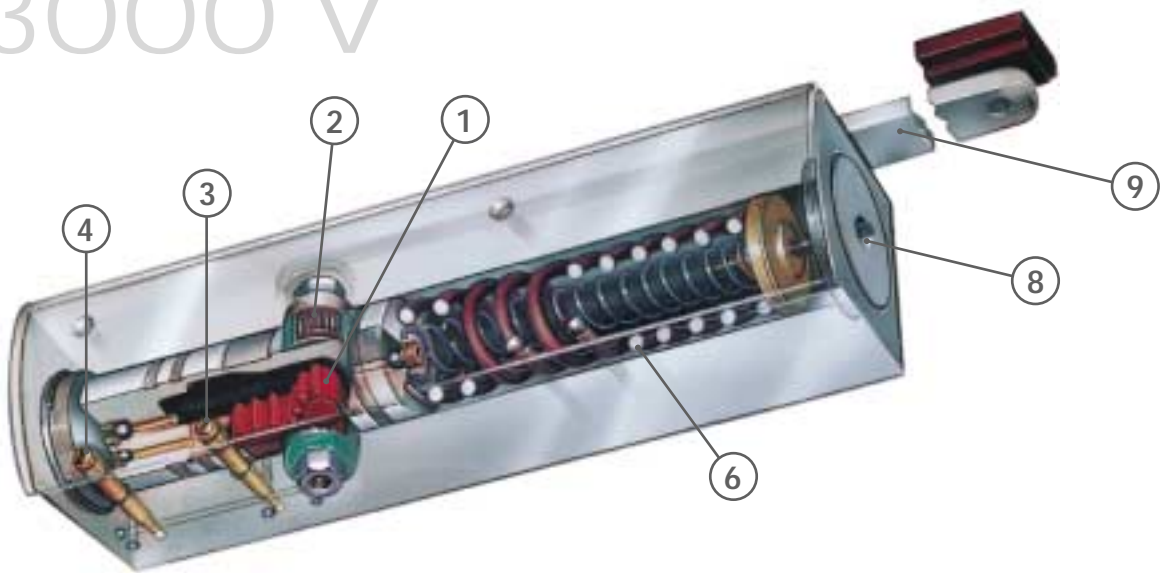
Fig. 23

# Technology

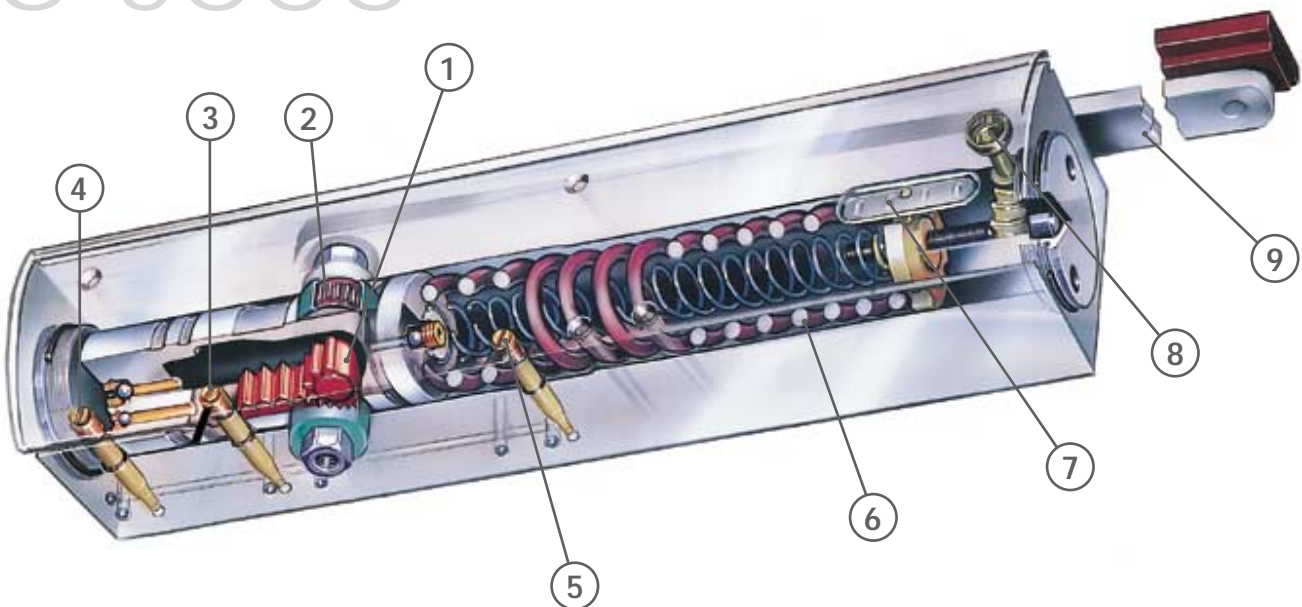
Door closers **GEZE TS 3000 V** and **GEZE TS 5000**

- |   |                            |                           |
|---|----------------------------|---------------------------|
| 1 Rack and pinion gear with integrated transmission | 4 Latching action adjuster | 7 Closing force indicator |
| 2 Needle bearing                                    | 5 Backcheck adjuster       | 8 Closing force adjuster  |
| 3 Closing speed adjuster                            | 6 Springs                  | 9 Lever                   |

## TS 3000 V



## TS 5000



# Applications and door closer packing units

GEZE TS 5000 system

Application	Single-leaf doors							Double-leaf doors					
	Standard installation	Direct installation on hinge side	Standard installation with delayed closing action	Standard installation with electro-mechanical hold-open	Direct installation with electro-mechanical hold-open on opp. hinge-side	Standard installation with electro-mechanical hold-open and smoke switch	Direct installation with electro-mechanical hold-open on opp. hinge-side and smoke switch	Sequential closing in continuous guide rail					
Design								With electromechanical hold-open on both					
								and smoke switch					
GEZE System	TS 5000	TS 5000 L	TS 5000 S	TS 5000 E	TS 5000 L-E	TS 5000 R	TS 5000 L-R	TS 5000 IS	TS 5000 L-IS	TS 5000 E-IS	TS 5000 L-E-IS	TS 5000 R-IS	TS 5000 L-R-IS
<b>Closer</b>													
TS 5000	●			●		●		●		●		●	
TS 5000 IS								●		●		●	
TS 5000 S			●										
TS 5000 L		●			●		●		●				●
TS 5000 L-IS								●		●			●
<b>Guide rail with lever or Guide rail OH with lever for L-versions</b>													
Standard guide rail	●		●										
Guide rail OH		●											
E-guide rail				●		●							
E-guide rail OH					●		●						
IS-guide rail								●					
IS-guide rail OH									●				
E-IS-guide rail										●		●	
E-IS-guide rail OH											●		●
<b>Accessories</b>													
Smoke switch control unit RSZ 5						●	●					●	●



# Installation examples

## GEZE TS 5000 system

Application		Mounting of door closer on hinge side		Mounting of door closer on opposite hinge side	
		Mounting on door leaf	Transom mounting	Mounting on door leaf	Transom mounting
single-leaf doors	Standard version	TS 5000	TS 5000 L	TS 5000 L	TS 5000
	Delayed closing	TS 5000 S			
	Mechanical hold-open	TS 5000 <sup>1)</sup>	TS 5000 L <sup>1)</sup>	TS 5000 L <sup>1)</sup>	TS 5000 <sup>1)</sup>
	Electric hold-open	TS 5000 E		TS 5000 L-E	
	Electric hold-open smoke switch	TS 5000 R		TS 5000 L-R	
double-leaf doors	Standard version, door selector in continuous guide rail	 Moving leaf Fixed leaf TS 5000 IS		 Moving leaf Fixed leaf TS 5000 L-IS	
	Electric hold-open on both sides, door selector in continuous guide rail	 Moving leaf Fixed leaf TS 5000 E-IS		 Moving leaf Fixed leaf TS 5000 L-E-IS	
	Electric hold-open on both sides, smoke detector, door selector in continuous guide rail	 Moving leaf Fixed leaf		 Moving leaf Fixed leaf TS 5000 L-R-IS	

<sup>1)</sup> Not permitted for use with smoke and fire doors.

# 5000

## Product features

- ▶ Closing force adjustable at front
- ▶ Optical size indicator
- ▶ Adjustable backcheck
- ▶ Adjustable, hydraulic latching action
- ▶ Adjustable, thermo-constant closing speed
- ▶ All functions adjustable from front
- ▶ Streamlined
- ▶ Housing and guide rail available in following colours: silver, dark bronze, white, RAL colours on request

## Applications

- ▶ For single action doors
- ▶ Can be used for right and left hand doors without adjustment
- ▶ For smoke and fire doors with provision for DIN closer
- ▶ If the door closer is to be fitted to smoke and fire doors, a mounting plate is usually required
- ▶ Leaf width up to 1400 mm

## Standard version/ package

**GEZE TS 5000** closer complete with guide rail, mounting material, and fitting template (mounting plate not included).

## Version with mechanical hold-open<sup>1)</sup>

Installation of the hold-open unit in the standard guide rail allows infinitely variable door hold-open between 80° and 130°. The retaining force for the hold-open can be adjusted. The hold-open can therefore be disabled.

## TS 5500 version

A cover cap with the following finishes is available for the closer: silver, dark bronze, white, polished brass, stainless steel, RAL colours on request.

Guide rail and lever are also available with the following finishes: silver, dark bronze, white, RAL colours on request.

TS 5000

<sup>1)</sup> Not permitted for use with smoke and fire doors.

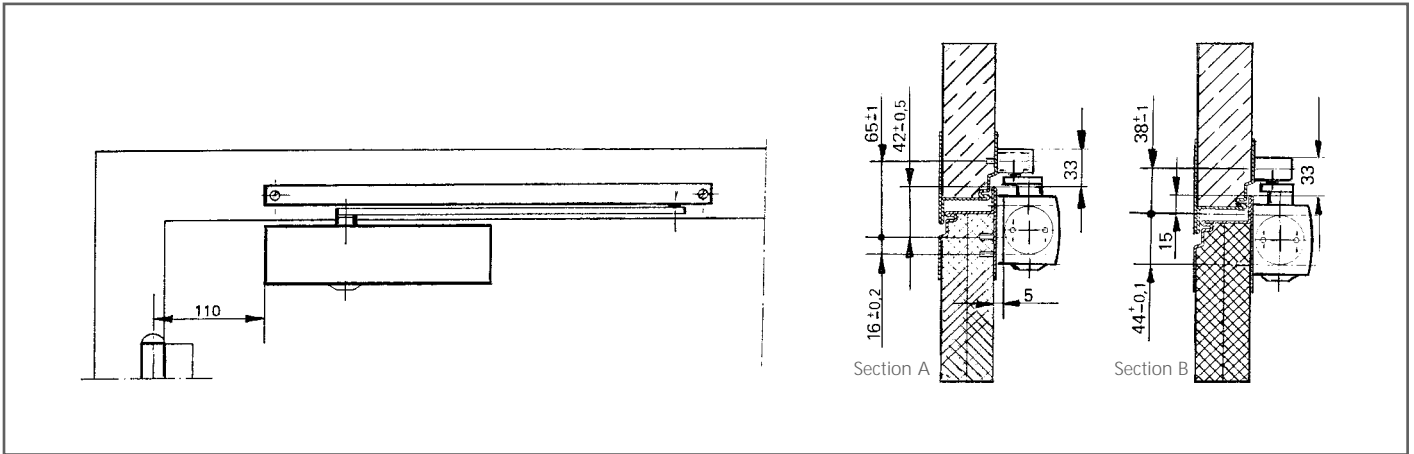


Fig. 24

**Mounting, door leaf on hinge side with guide rail Standard version**

Example showing the mounting of **GEZE TS 5000**, see Fig. 24

Section A: mounting with mounting plate  
Section B: mounting without mounting plate<sup>1)</sup>

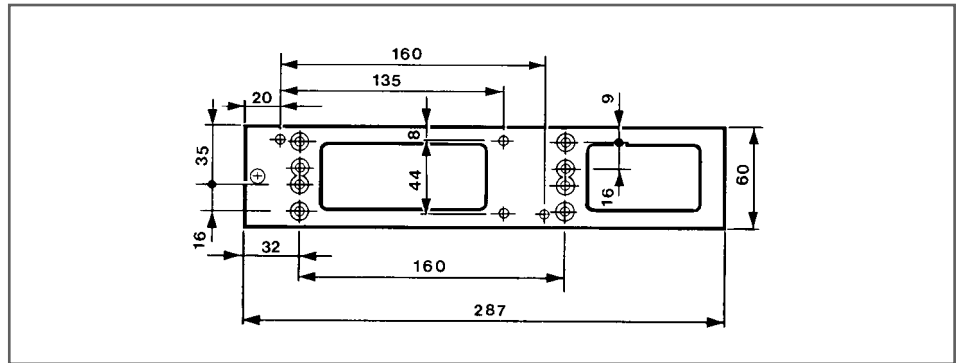


Fig. 25

**Mounting with mounting plate**

Mounting plate, 5 mm thick with drill-hole pattern to DIN EN 1154, for doors without direct closer mounting, see Fig. 25

Mounting dimensions for left hand door, see Fig. 26  
for right hand door, see Fig. 27

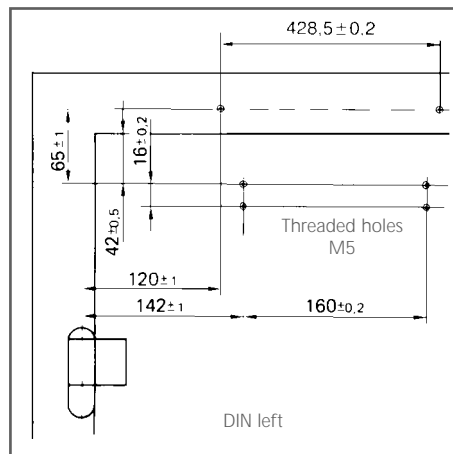


Fig. 26

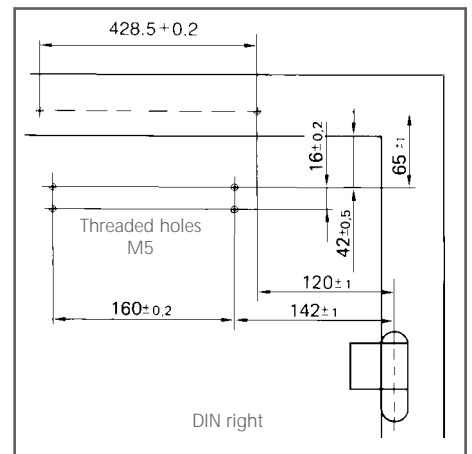


Fig. 27

**Direct mounting<sup>1)</sup>**

Mounting dimensions for left hand door, see Fig. 28  
for right hand door, see Fig. 29

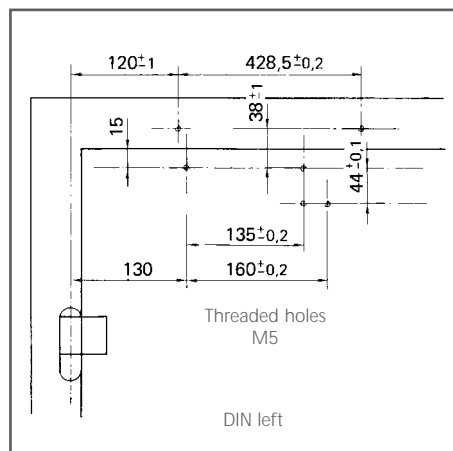


Fig. 28

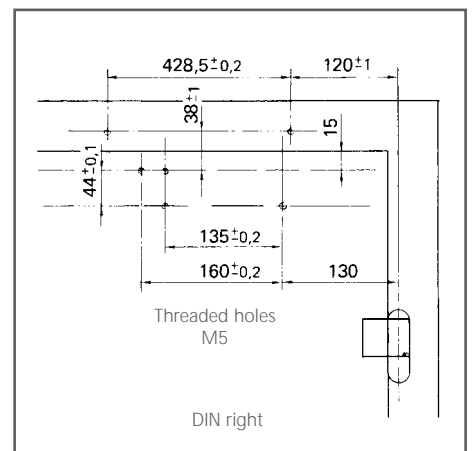


Fig. 29

<sup>1)</sup> Not permitted for use with smoke and fire doors.

# TS 5000

Door closer size EN	Door leaf width to EN (mm)
Size 2 <sup>2)</sup>	to 850
Size 3	over 850 to 950
Size 4	over 950 to 1100
Size 5	over 1100 to 1250
Size 6	over 1250 to 1400

2) In accordance with EN, these sizes must not be set for fire doors.

## Explanations

The standards stipulate that the door closer size (closing force of the closer) must be selected appropriate to the door width.

The next highest size must be selected if the structural (door height, door weight) or local conditions (wind influence) make this necessary.

The **GEZE TS 5000** (either *TS 5000*) covers several door closer sizes in one housing. These sizes can be adjusted using an adjustment screw.

### Transom mounting<sup>1)</sup>

Examples showing the transom mounting of a **GEZE TS 5000**, see Fig. 30

Section A: mounting with mounting plate (dimensions of the mounting plate, see Fig. 25)

Section B: mounting without mounting plate

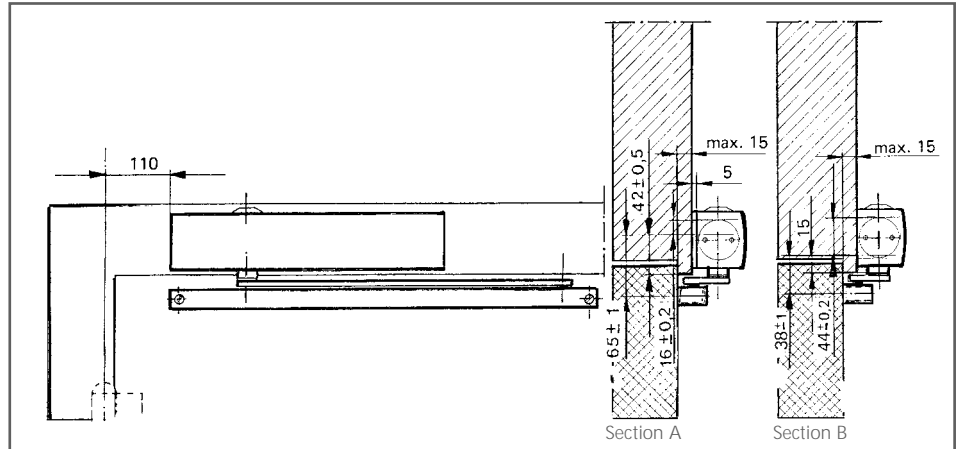


Fig. 30

### Mounting with mounting plate

Mounting dimensions for right hand door, see Fig. 31  
for left hand door, see Fig. 32

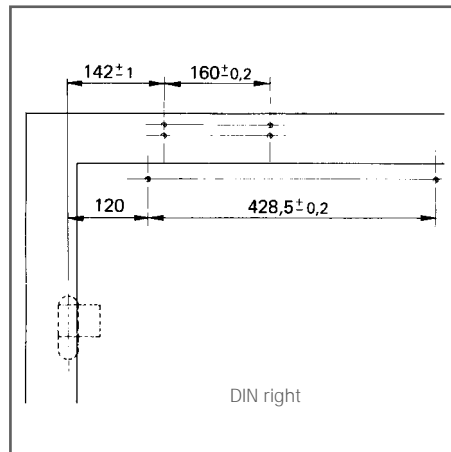


Fig. 31

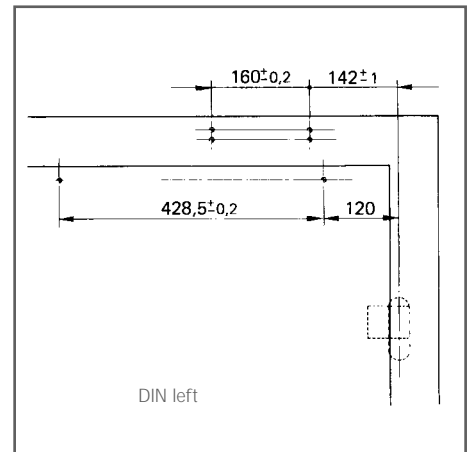


Fig. 32

### Direct mounting<sup>2)</sup>

Mounting dimensions for right hand door, see Fig. 33

Mounting dimensions for left hand door, see Fig. 34

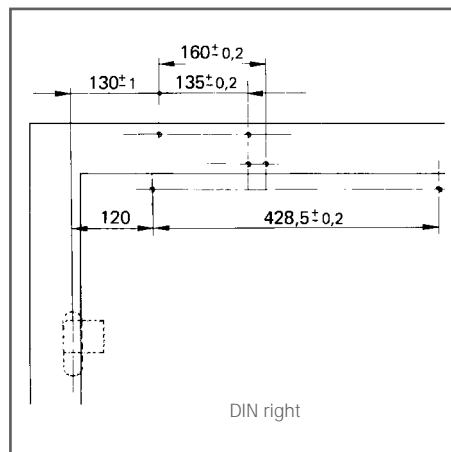


Fig. 33

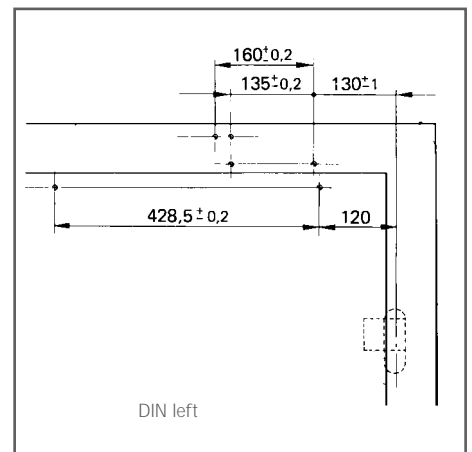


Fig. 34

1) Backcheck is not effective for this type of installation.

2) Not permitted for use with smoke and fire doors.

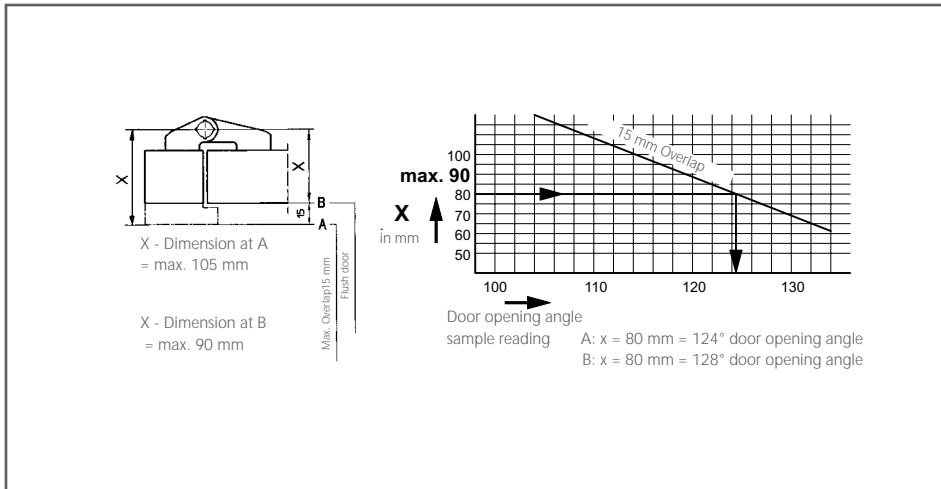


Fig. 35

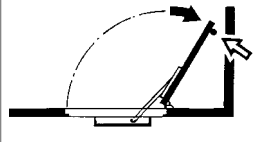
### Door opening angle relative to "x"

The x-dimension is a combination of leaf depth, pivot point clearance of a maximum of 36 mm and possibly transom. See fig. 35

Transom installation of **GEZE TS 5000 L** to fire and smoke protection doors on the opposite hinge side is only permitted under the following circumstances: (see survey no.12 0339 1 88 issued by MPA Dortmund).

#### Attention !

Restrict the max. door opening angle with a door stop!



- ▶ Compliance with the maximum permitted dimensions regarding door leaf depth, pivot point clearance and transom
- ▶ Restriction of the maximum opening angle
- ▶ Installation according to Fig. 31 or 32 and cross section A with mounting plate
- ▶ The door must carry an official approval certificate for this type of installation.

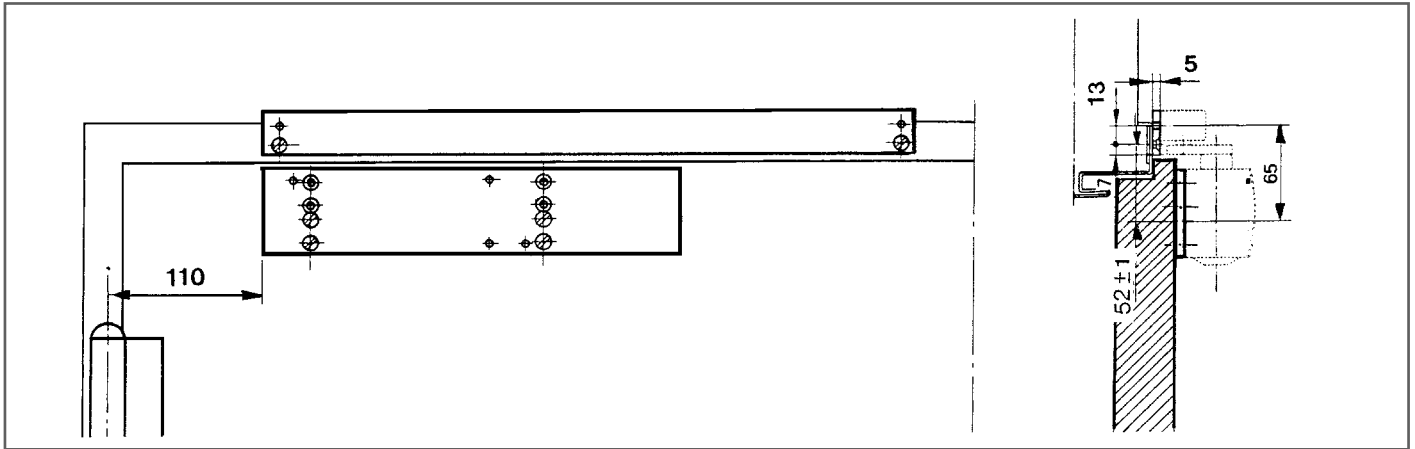


Fig. 36

**Mounting to narrow door frames**

see Fig. 36

Mounting plate for closer, see Fig. 25

For mounting to narrow door frames a mounting plate for the guide rail is available for installation to narrow frames. See Fig. 37

Mounting dimensions for left hand door with mounting plate, see Fig. 38

Mounting dimensions for right hand door with mounting plate, see Fig. 39

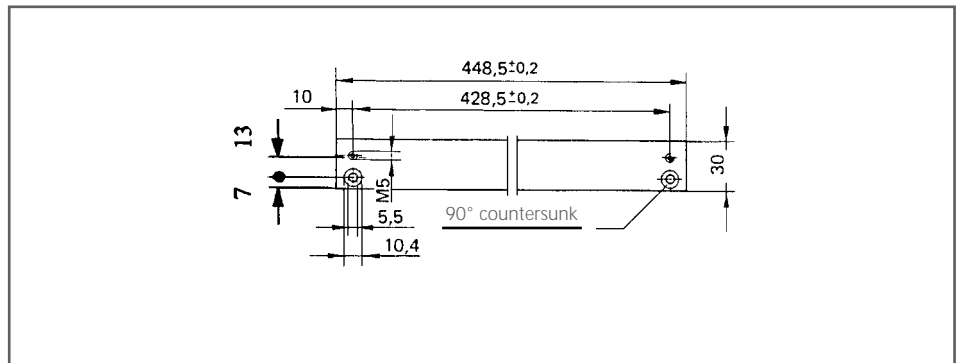


Fig. 37

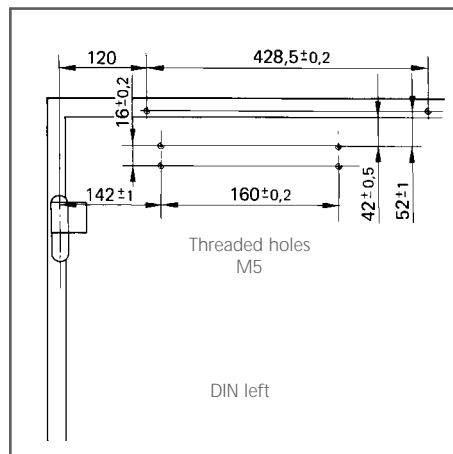


Fig. 38

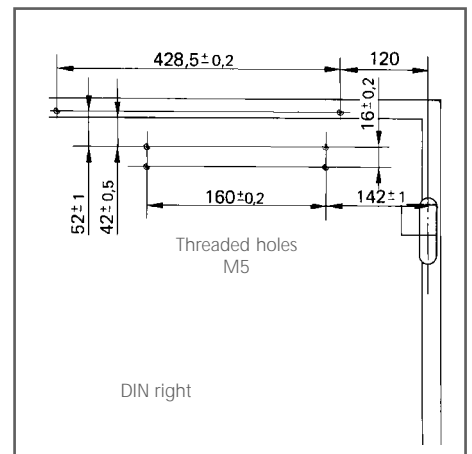


Fig. 39

# TS 5000

## Overhead rack and pinion door closer **GEZE TS 5000**

### Ordering text

Description	Finish	ID No.
<b>GEZE TS 5000</b> Size 2–6	silver	027333
Closer without guide rail, without lever	dark bronze	027334
	white RAL 9010	031203
	white RAL 9016	027335
	RAL colour	027336
Guide rail with lever	silver	068221
	dark bronze	068222
	white RAL 9010	031216
	white RAL 9016	015695
	brass effect	067985
	stainless steel effect	014945
	RAL colour	000773
Hold-open unit <sup>1)</sup>	–	071924
Opening restrictor <sup>1)</sup>	–	069780
1) Not permitted for use with smoke and fire doors.		

### Accessories

Description	Finish	ID No.
Cover caps* for version <b>GEZE TS 5500</b>	silver	067724
	dark bronze	067725
	white RAL 9010	031212
	white RAL 9016	067726
	polished brass	072698
	stainless steel	072696
	RAL colour	000756
* Cover caps only applicable for direct installation		

### Feature

Overhead rack and pinion door closer **GEZE TS 5000**, as per EN 1154A, size 2 – 6. With guide rail, adjustable closing force, closing speed, backcheck and latching action and visual size indicator.

Available with mounting plate.

Finish:  
 silver  
 dark bronze  
 white  
 RAL ....

### Mounting material

Description	Finish	ID No.
Mounting plate to DIN 18263, Part 2, for smoke and fire doors or for doors to which the closer cannot be directly mounted	silver	049185
	dark bronze	052351
	white RAL 9010	031236
	white RAL 9016	068627
	galvanized steel	057956
	RAL colour	029176
Mounting plate and counterplate for plate glass doors	silver	007923
	dark bronze	007924
	white RAL 9010	031228
	white RAL 9016	007925
	RAL colour	007926
Clamping plate for plate glass doors	silver	057126
	dark bronze	057127
	white RAL 9016	009491
	RAL colour	009494
Drilling template	–	053134
Mounting plate for guide rail	enamelled steel	001512

# Product information for door closers

The following information concerning door closers for hinged leaf doors must be observed. Failure to observe the information exonerates the manufacturer from liability or obligation.

## 1. Product information and intended use

Door closers in terms of this definition shall be used to close hinged leaf doors again after they have been manually opened. The closing operation is performed with adjustable hydraulic damping. The necessary closing force relative to the leaf widths is defined in EN 1154. The information from the manufacturers must be observed in the case of areas of application other than conduit intended. Door closers shall be used on installed hinged-leaf doors made of metal, wood, or UPVC and any combinations of these materials. The mounting method and position are precisely prescribed for smoke and fire doors or other standardised self-closing doors. Mounting methods and positions other than conduit intended do not conform to the intended use.

Vertical, smoothly operating doors with correctly mounted door closers are prerequisites for the intended use of door closers. Mounting and adjustment must be performed by qualified personnel according to the specifications from the manufacturer. Door closers with greater closing forces must be used in the case of particularly unfavourable installation conditions (effects of wind).

Door closers with backcheck must be used, especially in the case of hinged-leaf doors which are opened against wind. The backcheck contributes to protecting personnel, door elements, surrounding walls and objects without restricting the door opening angle. If, owing to the structural characteristics of the door, it is necessary to mount the door leaf to the frame at the door's pivot axis, a stop which restricts the maximum door opening angle of the door must be used. Hinged leaf doors can only be held open at a specific position using additional special fittings or integrated construction elements. With smoke and fire doors, the equipment must be approved by an inspector from the responsible institute for structural engineering (documents supporting suitability must be observed).

Door closers are not suitable for the unprotected external installation into single-action doors and for use in environments with aggressive corrosion-promoting air contents as well as extremely low or high temperatures.

Fitting boxes for floor springs must be protected against dirt penetration after their installation. If floor mounted door closers are exposed to water penetration (e.g. damp locations or exterior doors without rain protection), the cavity between the cement box and door closer housing must be filled with a suitable sealing compound.

Before the door closers (including any additional equipment) are installed, any mandatory legal directives must be observed.

## 2. Improper use

Improper use (i.e. utilisation of the product in a way differing from the intended use) for hinge leaf door may result in damage or injury in particular:

- ▶ if obstacles in the closing radius, dragging doors, jamming seals, wood wedges etc. prevent the closing operation
- ▶ if door closers have been incorrectly or unprofessionally fitted and/or adjusted
- ▶ if parts of the body are placed between the frame and leaf (risk of injury)
- ▶ if correct functioning is expected beyond the specified characteristics, e.g. in storm conditions, with extraordinary negative pressure or positive pressure acting on the door
- ▶ if door closers are used for purposes other than closing doors
- ▶ if the selected door closer size does not correspond to the recommendations of the manufacturer

## 3. Product characteristics

If the product characteristics are not described in the catalogues, brochures, instructions etc., any special requirements must be discussed with and then approved by the manufacturer. Reference should be

made to the standard DIN 18 263, parts 1, 2, 3 and 5 "Door closers with hydraulic damping". Virtually all basic requirements and additional requirements are defined in this standard. The suitability of use for door closers depends on factors such as frequency of actuation, actuation principle, environmental influences, and care and maintenance. Door closers must be replaced as soon as correct and reliable closing operation can no longer be guaranteed.

## 4. Product maintenance

Safety elements of door closers must be checked regularly, according to requirements, for wear and to ensure that they are fitted correctly and securely. Fixing screws must be tightened and any faulty components must be changed. Furthermore, the following maintenance work must be performed at least once per year (depending on the type of hinged leaf doors and their application):

- ▶ All moving parts on the link arm must be greased
- ▶ The closer settings (e.g. closing speed) must be checked.
- ▶ Smooth operation of the door must be checked
- ▶ In the case of door closers with special functions (hold-open devices/hold-open systems), the legal checks, monitoring, and maintenance procedures must be observed.

Only cleaning agents not containing any corrosive and damaging components should be used.

## 5. Obligations regarding information and instruction

The following media are available to the planner, specialist trader, manufacturer, building owner, and user:

- ▶ Catalogues, brochures
- ▶ Tender documents
- ▶ Mounting instructions, installation drawings, operating instructions, standards
- ▶ Consultation with field service personnel

The following points are essential for the correct use, reliable functioning, maintenance, and care of door closers for hinged-leaf doors:

- ▶ architects and planners must request and observe the necessary product information,
- ▶ specialist dealers and manufacturers must observe the product information and information in the price lists, and especially request all necessary instructions and pass them on to the customer, installer or end user
- ▶ manufacturers must observe product information and pass it on to the customers and users.

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