

### CERTIFICATE OF APPROVAL No CF 242

This is to certify that, in accordance with TS00 General Requirements for Certification of Fire Protection Products The undermentioned products of

### **GEZE GmbH**

Rein Reinhold-Voster-Straße 21 – 29 71229 Leonberg Germany 01543 443024 – 07702511350

Have been assessed against the requirements of the Technical Schedule(s) denoted below and are approved for use subject to the conditions appended hereto:

CERTIFIED PRODUCT GEZE 'Boxer' Concealed Overhead Door Closers TECHNICAL SCHEDULE
TS 34 - The Contribution Of
Controlled Door Closing
Devices And Accessories To
Fire Resisting Doorsets

Signed and sealed for and on behalf of Warringtonfire Testing and Certification Limited

Paul Duggan

**Certification Manager** 



Issued: 9th October 2002 Reissued: 31<sup>st</sup> July 2023 Valid to: 30<sup>th</sup> September 2023

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#### GEZE 'BOXER' CONCEALED OVERHEAD DOOR CLOSERS

- 1. This certification is provided to the client for its own purposes and we cannot opine on whether it will be accepted by Building Control authorities or any other third parties for any purpose.
- 2. This approval relates to GEZE 'Boxer' concealed overhead mounted door closing devices, with adjustable power. The closers include an external power adjustment and a slide arm channel of maximum length 457mm. The approval applies to the following configurations:

	Boxer 2-4	Boxer 3-6	Boxer EFS	Boxer E
Single-action	✓	<b>✓</b>	✓	<b>✓</b>
Double-action	<b>✓</b> *	×	×	<b>√</b> *
Body door mounted in top edge	✓	✓	✓	✓
Body transom mounted	✓	<b>√</b>	✓	×

**Key:** ✓ - approved **×**- Not approved

3. This approval relates to their use with the following door assemblies subject to the specific limitations identified in this certificate:-

Latched or unlatched, intumescent sealed door assemblies consisting of timber faced and edged leaves with timber, cellulosic or mineral cores in timber frames having a fire resistance up to 30 minutes (Code ITT).

Latched or unlatched, intumescent sealed door assemblies consisting of timber faced and edged leaves with timber, cellulosic or mineral cores (having calcium silicate sub facings where identified) into hardwood timber frames and having a fire resistance of 60 minutes (Code ITT).

Latched or unlatched, door assemblies consisting of steel faced and edged leaves with mineral fibre or paper honeycomb cores in steel frames having a fire resistance up to 240 minutes (Code MM and IMM).

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<sup>\*</sup>Only the 'Boxer 2-4 and Boxer E 2-4' are approved in double-acting configuration on ITT 30 and 60 doorsets.



#### GEZE 'BOXER' CONCEALED OVERHEAD DOOR CLOSERS

- 4. The closer is approved on the basis of:
  - i) Initial type testing to EN1154 and BS EN 1634-1.
  - ii) An appraisal against TS34
  - iii) Inspection of quality management system
  - iv) Inspection and surveillance of factory production control
  - v) Ongoing audit testing in accordance with EN 1154 requirements
- 5. This approval is applicable only to the specified closers used with door assemblies of proven fire resistance (as defined in BS 476: Part 22 and EN 1634-1) and having power ratings appropriate to the leaf sizes subject to a minimum size 3 (as specified in BS EN 1154) and including the manufacturer's supplied intumescent protection kit. Failure to install the intumescent protection identified in section 11-14 will invalidate this certificate.
- 6. The closer shall only be fitted to ITT, MM or IMM doorsets which have previously been shown capable of accommodating the installation of similar concealed closers at the head of the doorset, without detriment to the doorset's performance.
- 7. This approval relates to the above closers used with latched or unlatched, single-leaf or double-leaf <u>ITT</u> assemblies consisting of timber faced and edged leaves with timber, cellulosic or mineral cores and in timber frames:
  - a. <u>'Boxer 2-4' and 'Boxer E 2-4' closers with the bodies mounted in the door leaf</u>
    Approved for FD20, E20, or El20, FD30, E30 or El30 single-action and doubleaction doorsets of the following specification (Code ITT):
    - i. Door leaves shall not less than 44 mm thick doors.
    - ii. The door frame shall consist of softwood or hardwood with a minimum density of 510 kg/m³ and with a minimum section size 73 mm wide by 34 mm thick (excluding any doorstops).
    - iii. The closer shall be fitted with intumescent protection in the form of a minimum of 1 mm thickness of Interdens mono ammonium phosphate sheet material, fully lining the mortices cut into the top edge of the door leaf and frame head member to accommodate the closer body and guide channel assembly. The intumescent protection shall be provided only by the manufacturer and referenced within the manufacturer's product data sheet
    - iv. Geze top centres and bottom straps used in double-action applications shall incorporate intumescent protection in the form of a minimum of 2 mm thickness of Interdens mono ammonium phosphate sheet material, fully lining the mortices cut into the top/bottom edge of the door leaf and frame head member, and across the top of the closer body faceplate.

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#### GEZE 'BOXER' CONCEALED OVERHEAD DOOR CLOSERS

- b. <u>'Boxer 2-4' and 'Boxer E 2-4' closers with the bodies mounted in the door leaf</u>
  Approved for FD60, E60 or El60 single-action and double-action doorsets of the following specification (Code ITT):
  - i. Door leaves shall not less than 54 mm thick doors.
  - ii. The door frame shall consist of hardwood with a minimum density of 640 kg/m³ with a minimum section size 94 mm wide by 34 mm thick (excluding any doorstops).
  - iii. The closer shall be fitted with intumescent protection in the form of a minimum of 1 mm thickness of Interdens mono ammonium phosphate sheet material, fully lining the mortices cut into the top edge of the door leaf and frame head member to accommodate the closer body and guide channel assembly, and across the top of the closer body faceplate. The intumescent protection shall be provided only by the manufacturer and referenced within the manufacturer's product data sheet
  - iv. Geze top centres and bottom straps used in double-action applications shall incorporate intumescent protection in the form of a minimum of 2 mm thickness of Interdens mono ammonium phosphate sheet material, fully lining the mortices cut into the top/bottom edge of the door leaf and frame head member.
- c. 'Boxer 3-6', 'Boxer EFS' and 'Boxer E 3-6' closers with the bodies mounted in the door leaf

Approved for FD60, E60 or El60 single-action doorsets of the following specification (Code ITT):

- i. Door leaves shall not less than 54 mm thick doors.
- ii. For El 60 doors only, the leaf is to include a minimum 4.5 mm thick Masterclad of nominal density 1500 kg/m³, bonded to stiles, rails and core using a resorcinol type adhesive.
- iii. The door frame shall consist of hardwood with a minimum density of 640 kg/m³ with a minimum section size 94 mm wide by 44 mm thick (excluding any doorstops).
- iv. The closer shall be fitted with intumescent protection in the form of a minimum of 1 mm thickness of mono ammonium phosphate sheet material fully lining the mortices cut into the top edge of the door leaf and frame head member to accommodate the closer body and guide channel assembly, and across the top of the closer body faceplate. The intumescent protection shall be provided only by the manufacturer and referenced within the manufacturer's product data sheet
- v. In addition the perimeter intumescent fire seals within the door or frame shall by-pass the closer or guide rail by a minimum of 10mm on each side.

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#### GEZE 'BOXER' CONCEALED OVERHEAD DOOR CLOSERS

- d. <u>Transom mounted 'Boxer 2-4', 'Boxer 3-6' and 'Boxer EFS' closers</u>
  Approved for FD30, E30 and El30 single acting doorsets of the following specification (Code ITT):
  - i. Door leaves shall not less than 44 mm thick doors with a hardwood lipping to the top edge minimum 8 mm thick, 640 kg/m³ minimum density.
  - ii. The door frame shall consist of softwood or hardwood with a minimum density of 510 kg/m³ and with a minimum section size 80 mm wide by 65 mm thick (excluding any doorstops).
  - iii. Closer body and guide rail to be fitted intumescent protection in the form of a minimum of 2 mm thickness of mono ammonium phosphate sheet material fully lining the mortices cut into the top edge of the door leaf and frame head member to accommodate the closer body and guide channel assembly, and across the top of the closer body faceplate.
  - iv. EFS model wire ways in door frame to be sealed with suitable acrylic intumescent sealant.
- e. <u>Transom mounted 'Boxer 2-4', 'Boxer 3-6' and 'Boxer EFS' closers</u>
  Approved FD60, E60 or El60 single-acting doorsets of the following specification (Code ITT):
  - Door leaves shall not less than 54 mm thick doors with a hardwood lipping to the top edge minimum 8 mm thick, 640 kg/m³ minimum density.
  - ii. For E60 & EI 60 doors only, the leaf is to include a minimum 4.5 mm thick Masterclad of nominal density 1500 kg/m³, bonded to stiles, rails and core using a resorcinol type adhesive.
  - iii. The door frame shall consist of softwood or hardwood with a minimum density of 640 kg/m³ and with a minimum section size 80 mm wide by 65 mm thick (excluding any doorstops).
  - iv. Closer body and guide rail to be fitted intumescent protection in the form of a minimum of 2 mm thickness of mono ammonium phosphate sheet material fully lining the mortices cut into the top edge of the door leaf and frame head member to accommodate the closer body and guide channel assembly, and across the top of the closer body faceplate.
  - v. In addition the perimeter intumescent fire seals within the door or frame shall by-pass the closer or guide rail by a minimum of 10mm on each side.
  - vi. EFS model wire ways in door frame to be sealed with suitable acrylic intumescent sealant.

Note: Failure to install the intumescent protection identified in the configurations above will invalidate this certificate.

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#### **GEZE 'BOXER' CONCEALED OVERHEAD DOOR CLOSERS**

- 8. This approval relates to the above closers used with latched or unlatched, single-leaf or double-leaf **MM and IMM** assemblies consisting of metallic leaves in metallic frames that may or may not contain intumescent materials in the frame to leaf gap:
  - a. 'Boxer 2-4', 'Boxer 3-6', 'Boxer EFS' and 'Boxer E' closers with the bodies mounted in the door leaf

Approved for FD30, FD60, FD90, FD120, FD240, E30, E60, E90, E120 & E240 single-action doorsets of the following specification (Code MM/IMM):

- vii. Door leaves shall not less than 45 mm thick doors.
- viii. No additional intumescent protection is required
- 9. Where the closers are fitted to door leaves or frames that are manufactured from mineral composite-based materials, or low-density cellulosic- based material, the door assembly shall have previously been shown capable of accommodating the installation of closers at the head of the doorset, without detriment to the door assembly's performance.
- The closers shall be fixed with screws supplied by the closer manufacturer.
- 11. The approval relates to on-going production. Product and/or its immediate packaging is identified with the manufacturer's name, the product name or number, the CERTIFIRE name or name and mark, together with the CERTIFIRE certificate number and application where appropriate

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#### **GEZE 'BOXER' CONCEALED OVERHEAD DOOR CLOSERS**

12. The following table shows acceptable doorset types and fire resistance periods:

	Approved Door Type					
Class	IMM	ММ	ITT	ITM		
FD20	✓	✓	✓	×		
FD30	✓	✓	✓	×		
FD60	✓	✓	✓	×		
FD120	✓	✓	×	×		
FD240	✓	✓	×	×		
E 20	✓	✓	✓	×		
El 20	×	×	✓	×		
E 30	✓	✓	✓	×		
El 30	×	×	✓	×		
E 60	✓	✓	✓	×		
EI 60	×	×	✓	×		
E 90	✓	✓	×	×		
El 90	×	×	×	×		
E 120	✓	✓	×	×		
El 120	×	×	×	×		
E 240	✓	✓	×	×		
El 240	×	×	×	×		

#### Key:

✓ -

- approved

×

- Not approved

Please Note, not all closers are available in all approved doorsets types listed above. Please refer to sections 7 and 8 above for the specific approval of each closer type, application and doorset type.

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#### GEZE 'BOXER' CONCEALED OVERHEAD DOOR CLOSERS

13. Doors are classified as the following types:

**Code ITT** - 20 minute to 120 minute doorsets containing intumescent seals and consisting of timber faced and edged leaves with timber, cellulosic or mineral cores, hung in timber-based frames.

**Code ITM** - 20 minute to 120 minute doorsets containing intumescent seals and consisting of timber faced and edged leaves with timber, cellulosic or mineral cores, hung in steel frames.

**Code MM** - 20 to 240 minute doorsets consisting of uninsulated or insulated predominantly steel leaves, hung in steel frames without intumescent seals.

**Code IMM** - 20 to 240 minute doorsets consisting of uninsulated or insulated predominantly steel leaves, hung in steel frames with intumescent seals.

#### **Scope of Approval:**

- The closer may not be fitted to timber doorsets without perimeter intumescent fire seals within the frame rebate or door edge.
- Concealed overhead closers and their guide channel shall only be fitted in conjunction with the intumescent protection detailed previously in this certificate.
- Concealed overhead closers shall only be fitted to doorsets which have previously been shown capable of accommodating the installation of similar concealed items at the head of the doorset, without detriment to the doorset's performance.
- Mechanical Hold open option is not approved
- The following specific guide channels are approved for use with the Boxer closers:
  - o Non-hold open single-action guiderail for Boxer with lever arm 31 x 21 mm

Non- hold open double-action guide rail for Boxer with lever arm 31 x 21 mm



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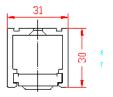
### **GEZE 'BOXER' CONCEALED OVERHEAD DOOR CLOSERS**

### **Scope of Approval - continued:**

- Non-hold open single-action guiderail for Boxer with lever arm 20 x 12mm
- Non-hold open double-action guiderail for Boxer with lever arm 20 x 12mm



'E' electrical hold-open, single-action and double-action guide rail for Boxer 'E' with lever arm 31 x 30 mm



- Double action doors shall be mounted on the Geze Type B 06371 or Type C 06666 Upper Pivots, Type C 07432 Bottom Strap and '109621 TS137a' floor pivot.
- In ITT double-action applications the Geze top centres and bottom straps shall
  incorporate intumescent protection in the form of a minimum of 2 mm thickness of
  Interdens mono ammonium phosphate sheet material, fully lining the mortices cut into the
  top/bottom edge of the door leaf and the frame head.
- The following functions are supported by this certification:

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Closer Ref.	Function	Latch Control	Backcheck	Delayed-Action
Boxer 2-4	Single- Action	✓	$\checkmark$	×
Boxer 2-4	Double- Action	✓	✓	×
Boxer 3-6	Single- Action	✓	✓	×
Boxer EFS	Single- Action	✓	✓	×
Boxer E	Single- Action	✓	✓	×
Boxer E	Double- Action	✓	✓	×

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Issued: 9th October 2002 Reissued: 31<sup>st</sup> July 2023 Valid to: 30<sup>th</sup> September 2023

This certificate is the property of Warringtonfire Testing and Certification Limited
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#### **GEZE 'BOXER' CONCEALED OVERHEAD DOOR CLOSERS**

### **Classification codes**

The above approval provides the following classifications:

'Boxer 2-4' and 'Boxer E 2-4' - Single-acting Applications:

3	8	4 2	1	1	4

'Boxer 3-6' and 'Boxer E 3-6' – Single-acting Applications:

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'Boxer 2-4' and 'Boxer E 2-4' – Double-acting Applications:

3	8 4 2	1	1	1
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'Boxer EFS' - Single-acting Applications:

3 8	6 4	1	1	3
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Note: power ratings shall be appropriate to the leaf sizes subject to a minimum size 3 (as specified in BS EN 1154).

#### **Further Information**

Further information regarding the details contained in this data sheet may be obtained from GEZE GmbH (Tel: 01543 443024).

Further information regarding the CERTIFIRE certification and other approved products can be obtained from CERTIFIRE (Tel: 01925 646777).

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