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10 YEARS  
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Model shown is the  
NHN 83V  
2-4 variable door closer  
See page D-1003 for details

## D&E NHN 80 series door closer

The D&E NHN 80 series of door closer is a range of fixed sized door closer designed to meet the highest of standards. It has successfully been type tested to BS EN 1154: 1997 and BS EN 1634-1:2000 and is accredited with CE certification.

### Size 1 door closer, suitable for use on doors 15 - 40Kgs.

DES01	fig. 1 / std arm door closer	silver
DES11	fig. 1 / std arm door closer with H/O	silver
DES21	fig. 1 / std arm door closer with DA	silver
DES31	fig. 1 / std arm door closer with BC	silver

DEP01	fig. 6 / parallel arm door closer	silver
DEP11	fig. 6 / parallel arm door closer with H/O	silver
DEP21	fig. 6 / parallel arm door closer with DA	silver
DEP31	fig. 6 / parallel arm door closer with BC	silver

### Size 2 door closer, suitable for use on doors 25 - 45Kgs.

DES02	fig. 1 / std arm door closer	silver
DES12	fig. 1 / std arm door closer with H/O	silver
DES22	fig. 1 / std arm door closer with DA	silver
DES32	fig. 1 / std arm door closer with BC	silver

DEP02	fig. 6 / parallel arm door closer	silver
DEP02W	fig. 6 / parallel arm door closer	white*
DEP02WL	fig. 6 / L-shape bracket arm door closer	white*
DEP12	fig. 6 / parallel arm door closer with H/O	silver
DEP22	fig. 6 / parallel arm door closer with DA	silver
DEP32	fig. 6 / parallel arm door closer with BC	silver

DEU02	universal door closer	silver / black arm
DEU02S	universal door closer	silver

DEG02	slide arm door closer	silver
DEG12	slide arm door closer with H/O	silver

### Size 3 door closer, suitable for use on doors 40 - 65Kgs.

DES03	fig. 1 / std arm door closer	silver
DES13	fig. 1 / std arm door closer with H/O	silver
DES23	fig. 1 / std arm door closer with DA	silver
DES33	fig. 1 / std arm door closer with BC	silver

DEP03	fig. 6 / parallel arm door closer	silver
DEP03W	fig. 6 / parallel arm door closer	white*
DEP03WL	fig. 6 / L-shape bracket arm door closer	white*
DEP13	fig. 6 / parallel arm door closer with H/O	silver
DEP23	fig. 6 / parallel arm door closer with DA	silver
DEP33	fig. 6 / parallel arm door closer with BC	silver

DEU03	universal door closer	silver / black arm
DEU03S	universal door closer	silver

DEG03	slide arm door closer	silver
DEG13	slide arm door closer with H/O	silver



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## Size 4 door closer, suitable for use on doors 55 - 85Kgs.

DES04	fig. 1 / std arm door closer	silver
DES14	fig. 1 / std arm door closer with H/O	silver
DES24	fig. 1 / std arm door closer with DA	silver
DES34	fig. 1 / std arm door closer with BC	silver

DEP04	fig. 6 / parallel arm door closer	silver
DEP14	fig. 6 / parallel arm door closer with H/O	silver
DEP24	fig. 6 / parallel arm door closer with DA	silver
DEP34	fig. 6 / parallel arm door closer with BC	silver

DEU04S	universal door closer	silver
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DEG04	slide arm door closer	silver
DEG14	slide arm door closer with H/O	silver

## Size 5 door closer, suitable for use on doors 80 - 120Kgs.

DES05	fig. 1 / std arm door closer	silver
DES15	fig. 1 / std arm door closer with H/O	silver
DES25	fig. 1 / std arm door closer with DA	silver
DES35	fig. 1 / std arm door closer with BC	silver

DEP05	fig. 6 / parallel arm door closer	silver
DEP15	fig. 6 / parallel arm door closer with H/O	silver
DEP25	fig. 6 / parallel arm door closer with DA	silver
DEP35	fig. 6 / parallel arm door closer with BC	silver

DEG05	slide arm door closer	silver
DEG15	slide arm door closer with H/O	silver

## Size 6 door closer, suitable for use on doors 100 - 140Kgs.

DES06	fig. 1 / std arm door closer	silver
DES16	fig. 1 / std arm door closer with H/O	silver
DES26	fig. 1 / std arm door closer with DA	silver
DES36	fig. 1 / std arm door closer with BC	silver

DEP06	fig. 6 / parallel arm door closer	silver
DEP16	fig. 6 / parallel arm door closer with H/O	silver
DEP26	fig. 6 / parallel arm door closer with DA	silver
DEP36	fig. 6 / parallel arm door closer with BC	silver

DEG06	slide arm door closer	silver
DEG16	slide arm door closer with H/O	silver

\* finish is subject to quantity

Covers to suit any of these models page D-1006



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## D&E NHN 83V door closer

The D&E NHN - 83V door closer is a multi-size 2-4 door closer. It has successfully been type tested to BS EN 1154: 1997 and BS EN 1634-1:2000 and is accredited with CE certification.

DE83V	universal door closer	silver
DE83VW	universal door closer	white*
DE83V-GL	slide arm door closer	silver
DE183V-UCB	universal door closer with H/O	silver
DE183VW	universal door closer with H/O	white*
DE183V-GL	slide arm door closer with H/O	silver
DE1083V-UCB	universal door closer with BC	silver
DE1083V-GL	slide arm door closer with BC	silver
DE1183V-UCB	universal door closer with BC & H/O	silver
DE1183V-GL	slide arm door closer with BC & H/O	silver

Power adjustment: variable via a 5mm hex key.

Door weight: 40 - 80 Kgs.

Door width: 850 - 1100mm.

Supplied complete with fixing screws for timber and steel doors and full installation instructions.

\* finish is subject to quantity

Covers to suit any of these models page D-1006



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## D&E NHN 82TC door closer

The D&E NHN - 82TC is a multi-size 2-3 door closer supplied with a silver cover as standard. It has successfully achieved BS EN 1634-1:2000.

DE82TC                      std arm door closer                      silver

DE82TC-UCB              universal door closer                      silver

Power adjustment:    by templating.

Door weight:            40 - 60 Kgs.

Door width:             850 - 950mm.

Supplied complete with fixing screws for timber and steel doors and full installation instructions.

*Alternative covers to suit any of these models page D-1006*







## D&E NHN 8080 door closer

The D&E NHN - 8080 series is a multi-size door closer range. It has successfully achieved UL, ULC, ANSI A156.4 grade 1, ANSI A117.1 and BS EN 1634-1:2000.

### The 8080 series is a 2-5 door closer.

DE8080	door closer with BC	silver
DE8180	door closer with BC & H/O	silver
DE8080H	door closer with BC & DA	silver

DE8080-GL	slide arm door closer with BC	silver
DE8180-GL	slide arm door closer with BC & H/O	silver
DE8080H-GL	slide arm door closer with BC & DA	silver

Power adjustment: variable via a 5mm hex key.

Door weight: up to 120 Kgs for std arm  
up to 90 Kgs for slide arm

Door width: 750 - 1200mm.

### The 8080BF series is a barrier free door closer sizes 1-4 door closer.

DE8080BF	barrier free door closer with BC	silver
DE8180BF	barrier free door closer with BC & H/O	silver
DE8080BFH	barrier free door closer with BC & DA	silver

DE8080BF-GL	slide arm barrier free door closer with BC	silver
DE8180BF-GL	slide arm barrier free door closer with BC & H/O	silver
DE8080BFH-GL	slide arm barrier free door closer with BC & DA	silver

Power adjustment: variable via a 5mm hex key.

Door weight: up to 85 Kgs for std arm  
up to 70 Kgs for slide arm

Door width: 800 - 1200mm.

Supplied complete with fixing screws for timber and steel doors and full installation instructions.

Covers to suit any of these models page D-1006





**Polished chrome finish**



**Polished gold finish**



**Satin stainless steel finish**



## D&E NHN door closer covers

The D&E **XMC** series door closer cover to suit door closers sizes 81, 82, 83, 82TC and 83V ranges. The clip on facility offers a fast and effective method of fixing.

DEXMCS	door closer cover	silver
DEXMCPC	door closer cover	pol. chrome finish
DEXMCPG	door closer cover	pol. brass finish
DEXMCSC	door closer cover	sat. chrome finish
DEXMCSS	door closer cover	SSS finish
DEXMC/RAL	door closer cover	RAL finish*

\*RAL finish is subject to quantity

The D&E **8080C** series door closer cover are suitable for all door closers within the 80 series and 8080 series of NHN door closers. These covers are secured in place by screws to prevent unwanted adjustment or vandalism of the closer body.

DE8080CS	door closer cover	silver
DE8080CPC	door closer cover	pol. chrome finish
DE8080CPG	door closer cover	pol. brass finish
DE8080CSC	door closer cover	sat. chrome finish
DE8080CSS	door closer cover	SSS finish
DE8080/RAL	door closer cover	RAL finish*

\* RAL finish is subject to quantity

## D&E NHN 80 series "hi-finish" plated arms

The D&E 80 series of plated arms & conversion brackets are available to suit all sizes of NHN door closers.



DEXAPG81/2/3	std. arm to suit 81, 82, 83 & 82TC	pol. brass finish
DEXAPC81/2/3	std. arm to suit 81, 82, 83 & 82TC	pol. chrome
DEXAPG84/5/6	std. arm to suit 84, 85 & 86	pol. brass finish
DEXAPC84/5/6	std. arm to suit 84, 85 & 86	pol. chrome



DEXUCB/PG	universal conversion bracket	pol. brass finish
DEXUCB/PC	universal conversion bracket	pol. chrome
DEXAPG81/2/3P	parallel arm to suit 81P, 82P, 83P	pol. brass finish
DEXAPC81/2/3P	parallel arm to suit 81P, 82P, 83P	pol. chrome
DEXAPG84/5/6P	parallel arm to suit 84P, 85P & 86P	pol. brass finish
DEXAPC84/5/6P	parallel arm to suit 84P, 85P & 86P	pol. chrome



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## Accessories:



**80 series universal conversion bracket - converts a fig. 1 / standard arm door closer into a fig. 6 parallel arm door closer.**

DEXCBS	universal conversion bracket	silver
DEXCBB	universal conversion bracket	black
DEXCBPG	universal conversion bracket	pol. brass finish
DEXCBPC	universal conversion bracket	pol. chrome



**8080 series parallel soffit plate / bracket - converts a fig. 1 / standard arm door closer into a fig. 6 parallel arm door closer.**

DE8080CBS	fig 6 / parallel soffit plate / bracket	silver
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**80 series L-shape bracket - for use when the fixing position of the soffit plate / parallel arm shoe is not suitable - prime examples of this are PVCu & aluminium frames.**

DEXLBS	fig 6 / L-shape bracket	silver
DEXLBW	fig 6 / L-shape bracket	white
DEXLBSHO	fig 6 / L-shape bracket for H/O model	silver
DEXLBWHO	fig 6 / L-shape bracket for H/O model	white



**80 series stepped soffit plate / parallel arm shoe - for use when the doors top rail is too narrow for standard soffit plate installation - mainly used on aluminium doors / frames.**

DEXNH0BA1	12mm stepped parallel arm shoe	silver
DEXNH0BA2	17mm stepped parallel arm shoe	silver
DEXH0BA1	12mm stepped bracket for H/O model	silver
DEXH0BA2	17mm stepped bracket for H/O model	silver



**80 series slide arm**

DEXSA81/83	slide arm to suit sizes 1 - 3 incl.	silver
DEXSA84	slide arm to suit sizes 4 - 6 incl.	silver
DECHOS	hold open device for slide arms	natural finish



**8080 & 80 series drop plate - for use when the fixings for the door closer body falls below the top rail.**

DE8080DP	drop plate to suit 8080 & 8080BF series	silver
DEXDP1	drop plate to suit sizes 1 - 3 incl.	silver
DEXDP4	drop plate to suit sizes 4 - 6 incl.	silver



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## D&E NHN 400 door closer

The NHN 400 is a 2-5 variable multi-size door closer. It has successfully been type tested to EN1154:1997, EN 1634-1:2000 and is accredited with CE certification\*.

### Silver cover, flat arm & universal bracket

DENHN400U/SI	2-5 universal door closer	silver
DENHN400BCU/SI	2-5 universal door closer with BC	silver
DENHN400HU/SI	2-5 universal door closer with DA	silver

### Silver cover & black flat arm & universal bracket

DENHN400U/SI/BK	2-5 universal door closer	silver / black arm
DENHN400BCU/SI/BK	2-5 universal door closer with BC	silver / black arm
DENHN400HU/SI/BK	2-5 universal door closer with DA	silver / black arm

Power adjustment: via a 5mm hex key.

Door weight: 40 - 100 Kgs.

Door width: 850 - 1250mm.

Supplied complete with fixing screws for timber and steel doors and full installation instructions.

*A comprehensive range of accessories is available - please contact the sales team for any special requirements.*



## D&E NHN 400GL slide arm door closer

The NHN 400GL is a 2-5 variable multi-size door closer. It has successfully been type tested to EN1154:1997, EN 1634-1:2000 and is accredited with CE certification\*.

### Silver body & silver arm

DENHN400/GL/SI	2-5 slide arm door closer	silver
DENHN400BC/GL/SI	2-5 slide arm door closer with BC	silver
DENHN400H/GL/SI	2-5 slide arm door closer with DA	silver

Power adjustment: via a 5mm hex key.

Door weight: 40 - 120 Kgs.

Door width: 850 - 1250mm.

Supplied complete with fixing screws for timber and steel doors and full installation instructions.

*A comprehensive range of accessories is available - please contact the sales team for any special requirements.*

\* CE certification does not apply to the DA models





## D&E NHN 400 door closer - 'Hi-Finish' Range

The NHN 400 is a 2-5 variable multi-size door closer. It has successfully been type tested to EN1154:1997, EN 1634-1:2000 and is accredited with CE certification\*.

### 'Hi-Finish' cover, flat arm & universal bracket

DENHN400/PB	2-5 universal door closer	pol. brass
DENHN400/PNP	2-5 universal door closer	pol. nickel plated
DENHN400/SNP	2-5 universal door closer	sat. nickel plated
DENHN400/PSS	2-5 universal door closer	pol. stainless steel
DENHN400/SSS	2-5 universal door closer	sat. stainless steel

DENHN400BCU/PB	2-5 universal door closer with BC	pol. brass
DENHN400BCU/PNP	2-5 universal door closer with BC	pol. nickel plated
DENHN400BCU/SNP	2-5 universal door closer with BC	sat. nickel plated
DENHN400BCU/PSS	2-5 universal door closer with BC	pol. stainless steel
DENHN400BCU/SSS	2-5 universal door closer with BC	sat. stainless steel

DENHN400H/PB	2-5 universal door closer with DA	pol. brass
DENHN400H/PNP	2-5 universal door closer with DA	pol. nickel plated
DENHN400H/SNP	2-5 universal door closer with DA	sat. nickel plated
DENHN400H/PSS	2-5 universal door closer with DA	pol. stainless steel
DENHN400H/SSS	2-5 universal door closer with DA	sat. stainless steel

### 'Hi-Finish' cover, black arm & universal bracket

DENHN400/PB/BK	2-5 universal door closer	PB / black arm
DENHN400/PNP/BK	2-5 universal door closer	PNP / black arm
DENHN400/SNP/BK	2-5 universal door closer	SNP / black arm
DENHN400/PSS/BK	2-5 universal door closer	PSS / black arm
DENHN400/SSS/BK	2-5 universal door closer	SSS / black arm

DENHN400BCU/PB/BK	2-5 universal door closer with BC	PB / black arm
DENHN400BCU/PNP/BK	2-5 universal door closer with BC	PNP / black arm
DENHN400BCU/SNP/BK	2-5 universal door closer with BC	SNP / black arm
DENHN400BCU/PSS/BK	2-5 universal door closer with BC	PSS / black arm
DENHN400BCU/SSS/BK	2-5 universal door closer with BC	SSS / black arm

DENHN400H/PB/BK	2-5 universal door closer with DA	PB / black arm
DENHN400H/PNP/BK	2-5 universal door closer with DA	PNP / black arm
DENHN400H/SNP/BK	2-5 universal door closer with DA	SNP / black arm
DENHN400H/PSS/BK	2-5 universal door closer with DA	PSS / black arm
DENHN400H/SSS/BK	2-5 universal door closer with DA	SSS / black arm

Power adjustment: via a 5mm hex key.

Door weight: 40 - 100 Kgs.

Door width: 850 - 1250mm.

Supplied complete with fixing screws for timber and steel doors and full installation

*A comprehensive range of accessories is available -  
please contact the sales team for any special requirements.*

\* CE certification does not apply to the DA models





## D&E NHN 400GL slide arm door closer

The NHN 400GL is a 2-5 variable multi-size door closer. It has successfully been type tested to EN1154:1997, EN 1634-1:2000 and is accredited with CE certification\*.

### 'Hi-Finish' cover & slide arm

DENHN400PB/GL	slide arm door closer	pol. brass
DENHN400PNP/GL	slide arm door closer	pol. nickel plated
DENHN400SNP/GL	slide arm door closer	sat. nickel plated
DENHN400SSS/GL	slide arm door closer	sat. stainless steel
DENHN400PSS/GL	slide arm door closer	pol. stainless steel
DENHN400BC/PB/GL	slide arm door closer with BC	pol. brass
DENHN400BC/PNP/GL	slide arm door closer with BC	pol. nickel plated
DENHN400BC/SNP/GL	slide arm door closer with BC	sat. nickel plated
DENHN400BC/SSS/GL	slide arm door closer with BC	sat. stainless steel
DENHN400BC/PSS/GL	slide arm door closer with BC	pol. stainless steel
DENHN400H/PB/GL	slide arm door closer with DA	pol. brass
DENHN400H/PNP/GL	slide arm door closer with DA	pol. nickel plated
DENHN400H/SNP/GL	slide arm door closer with DA	sat. nickel plated
DENHN400H/SSS/GL	slide arm door closer with DA	sat. stainless steel
DENHN400H/PSS/GL	slide arm door closer with DA	pol. stainless steel

Power adjustment: via a 5mm hex key.

Door weight: 40 - 100 Kgs.

Door width: 850 - 1250mm.

Supplied complete with fixing screws for timber and steel doors and full installation instructions.

*A comprehensive range of accessories is available - please contact the sales team for any special requirements.*



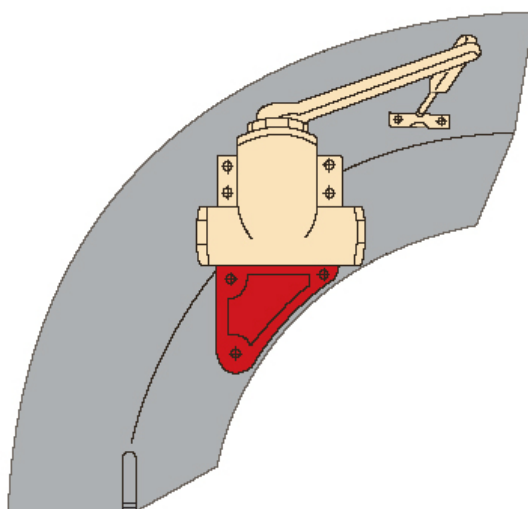
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# D&E classique - T-shape door closer

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## D&E Classique

The D&E **classique** is available fully reversible for left and right hand doors. It is supplied as standard for fig. 1 / standard arm installation but can be supplied with conversion bracket for parallel application where needed. Mounting brackets are available for **arched** or **narrow frame** doorways.

**DEGR03** size 3 - T-shape door closer champagne

Door width: 950mm  
Door weight: 60Kg

**DEGR04** size 4 - T-shape door closer champagne

Door width: 1100mm  
Door weight: 80Kg

**DEGR05** size 5 - T-shape door closer champagne

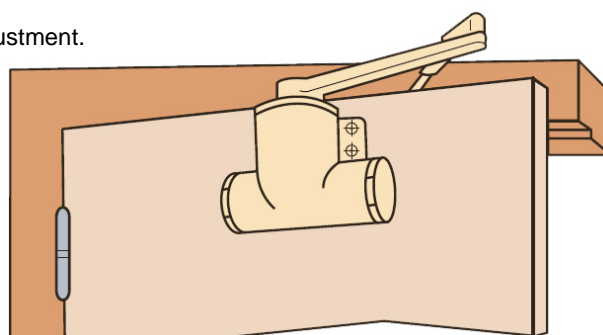
Door width: 1250mm  
Door weight: 100Kg

**DEGR06** size 6 - T-shape door closer champagne

Door width: 1400mm  
Door weight: 120Kg

Integral backcheck as standard

Hydraulic valve speed adjustment.



Sales: 01733 896123



D-1011

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### Accessories:



**D&E Classique universal conversion bracket .**  
**Converts a fig. 1 / standard arm door closer into a fig. 6 parallel arm door closer - allowing installation on the push side of the door.**  
 DEGRCLCB universal conversion bracket champagne



**D&E Classique curved head bracket.**  
**The D&E Classique curved head bracket is designed to allow your Classique to be installed on arch top doors.**

DEGR03CHB	curved head bracket for DEGR03	champagne
DEGR04CHB	curved head bracket for DEGR04	champagne
DEGR05CHB	curved head bracket for DEGR05	champagne
DEGR06CHB	curved head bracket for DEGR06	champagne

*Most common applications for this product is in Cathedrals, Churches, Monasteries, stately homes, listed buildings, hotels and bars that wish to maintain traditional aesthetics.*



**D&E Classique soffit bracket .**  
**The D&E Classique soffit bracket is designed for installation under the head of the door frame on the push side of the door.**

DEGR03SB	soffit bracket for DEGR03	champagne
DEGR04SB	soffit bracket for DEGR04	champagne
DEGR05SB	soffit bracket for DEGR05	champagne
DEGR06SB	soffit bracket for DEGR06	champagne



## Standard Installation

### Inward Opening

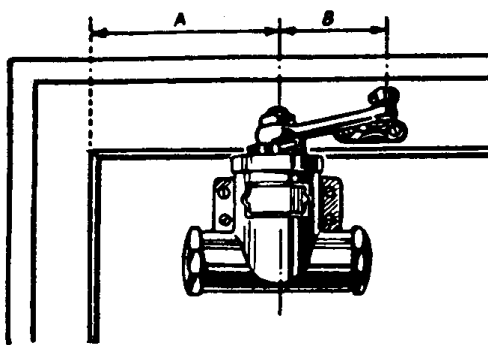


Fig 1. Door Hung  
On Left = RH Closer ( D )

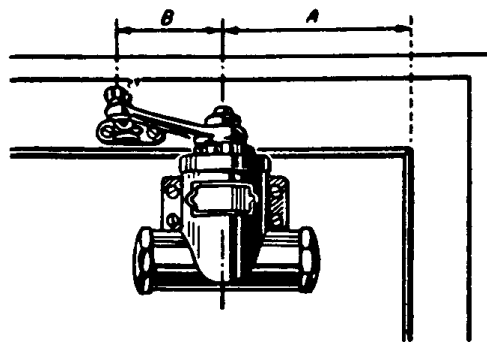


Fig 2. Door Hung  
On Right = LH Closer ( G )

### Outward Opening

#### With Drop Plate

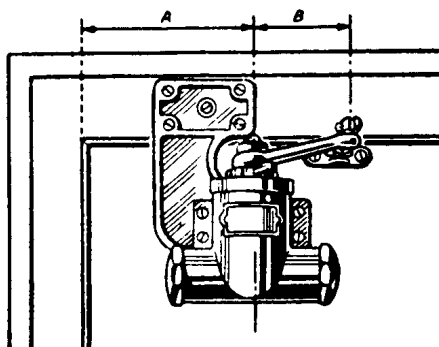


Fig 3. Door Hung  
On Left = RH Closer ( D )

#### With Soffit Bracket

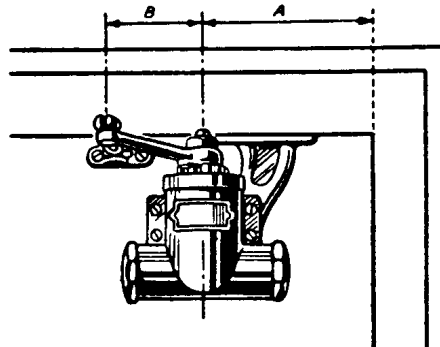


Fig 4. Door Hung  
On Right = LH Closer ( G )

### With Conversion Bracket

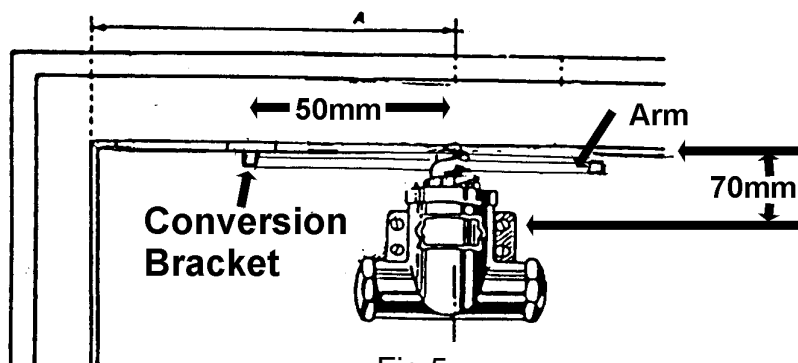


Fig 5.

*The lip of the Conversion Bracket should project a minimum of 50mm from the centre of the pinion.*



Dimension A, the distance from the centre line of the hinge to the pinion of the closer, varies according to the size of the closer and the required opening angle of the door.

<i>Door Opening To 90°</i>		<i>Door Opening Beyond 90°</i>	
Size	A	Size	A
3	240 mm	3	180 mm
4	260 mm	4	200 mm
5	310 mm	5	230 mm
6	350 mm	6	290 mm

Dimension B, the distance from the pinion of the closer to the centre of the shoe, is **ALWAYS** 80mm when installed in standard configuration. When a conversion bracket is used dimension B is 50mm, as shown in Fig 5.

### **Adjustment**

- 1) Adjust spring power by using the wrench provided to turn the ratchet from the hinge side to the lock side - ( Maximum 8 clicks )
- 2) Adjust the closing power to overcome latching action or air pressure resistance, adjust the threaded of the arm to match Fig 6. Fig 7 will effectively delete any latching action.
- 3) Adjust closing speed via the hydraulic valve located on the right side of the closer body.
- 4) When installed with the Conversion Bracket, ensure that the position of the arm, prior to the tension being applied, is behind the line of the door.

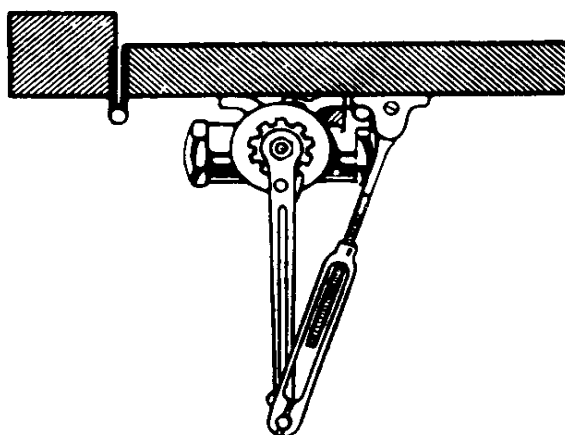


Fig 6.

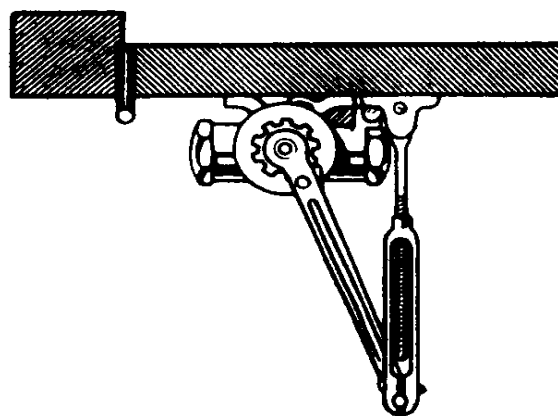


Fig 7.



## Reversing The Handing

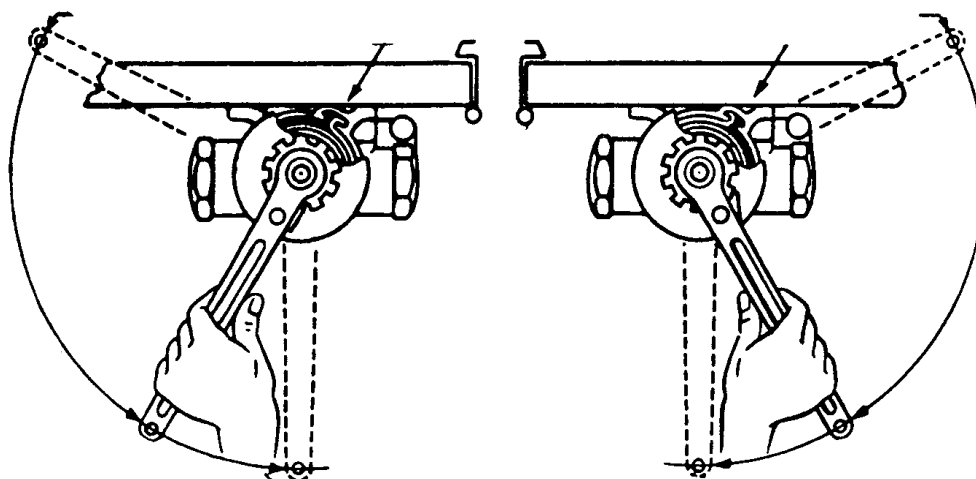


Fig 8. Left Hand

Fig 9. Right Hand

Fit the arm to obtain check action at the position shown behind the door .

Closers are normally supplied in right hand configuration. To change to left hand, remove the arm, ratchet and cover; withdraw the spring from the housing, reverse it and replace, ensuring that the tail of the spring is correctly located in the groove of the housing, i.e. RH closer - ( the tail points to the left - see Fig 9 ).

Replace the cover and the ratchet, ensuring that the slot of the ratchet housing is aligned with the inner tail of the spring.

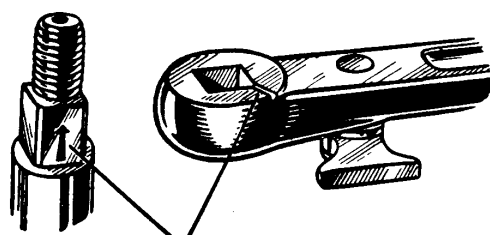


Fig 10.

When fitting the arm, ensure that the mark on the arm lines up with the arrow on the pinion, irrespective of the handing of the closer ( Fig 10 ). The exception to this is when the Conversion Bracket is to be installed, when the mark on the arm goes on the opposite side to the arrow on the pinion.





## D&E NHN 600U series concealed door closers

The D&E NHN 600U concealed door closer series is a range of fixed sized door closers designed to meet the highest of standards. The body of the closer is only 28mm. It has successfully been tested to BS 476: pt 22 for use on 1 hr fire doors\*.

### Concealed door closer, size 1 suitable for use on doors 15 - 30Kgs.

DEC618UL	concealed door closer - LH	silver
DEC618UR	concealed door closer - RH	silver
DEC1618UL	concealed door closer with H/O - LH	silver
DEC1618UR	concealed door closer with H/O - RH	silver

Door specifications:	height x width:	1800 x 800mm
	door thickness:	timber 40mm min. aluminium 36mm min.

### Concealed door closer, size 2 suitable for use on doors 25 - 45Kgs.

DEC628UL	concealed door closer - LH	silver
DEC628UR	concealed door closer - RH	silver
DEC1628UL	concealed door closer with H/O - LH	silver
DEC1628UR	concealed door closer with H/O - RH	silver

Door specifications:	height x width:	2100 x 900mm
	door thickness:	timber 40mm min. aluminium 36mm min.

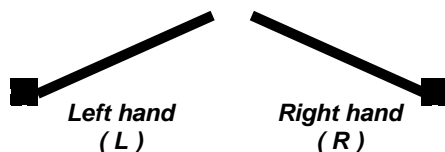
### Concealed door closer, size 3 suitable for use on doors 40 - 65Kgs.

DEC638UL	concealed door closer - LH	silver
DEC638UR	concealed door closer - RH	silver
DEC1638UL	concealed door closer with H/O - LH	silver
DEC1638UR	concealed door closer with H/O - RH	silver

Door specifications:	height x width:	2100 x 950mm
	door thickness:	timber 40mm min. aluminium 36mm min.

### Accessories:

DEIK600	intumescent kit for size 3 model
---------	----------------------------------



\* DEIK600 intumescent kit required on fire doors





## D&E NHN 60UA series concealed door closers

The D&E NHN 60UA concealed door closer series is a range of fixed sized door closers designed to meet the highest of standards. The body of the closer is only 36mm (size 3) & 41mm (size 4 & 5).

### Concealed door closer, size 3 suitable for use on doors 40 - 65Kgs.

DEC63UAL	concealed door closer - LH	silver
DEC63UAR	concealed door closer - RH	silver
DEC163UAL	concealed door closer with H/O - LH	silver
DEC163UAR	concealed door closer with H/O - RH	silver

Door specifications:	height x width:	2100 x 950mm max.
	door thickness:	timber 50mm min. aluminium 45mm min.

### Concealed door closer, size 4 suitable for use on doors 55 - 85Kgs.

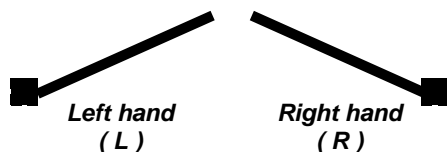
DEC64UAL	concealed door closer - LH	silver
DEC64UAR	concealed door closer - RH	silver
DEC164UAL	concealed door closer with H/O - LH	silver
DEC164UAR	concealed door closer with H/O - RH	silver

Door specifications:	height x width:	2700 x 1050mm max.
	door thickness:	timber 50mm min. aluminium 45mm min.

### Concealed door closer, size 5 suitable for use on doors 80 - 120Kgs.

DEC65UAL	concealed door closer - LH	silver
DEC65UAR	concealed door closer - RH	silver
DEC165UAL	concealed door closer with H/O - LH	silver
DEC165UAR	concealed door closer with H/O - RH	silver

Door specifications:	height x width:	2700 x 120mm max.
	door thickness:	timber 50mm min. aluminium 45mm min.





### D&E Auto-hinge 1000 series.

The 1000 series is a door closer built into a pair of hinges. Comprising of 1 spring hinge and 1 damper hinge and offers a fully adjustable, controlled closing action.

#### Suitable for use on internal doors up to 35Kg.

DE1111/35/L	auto-hinge - LH	SAA
DE1111/35/R	auto-hinge - RH	SAA

DE1111/35/SL	auto-hinge with H/O - LH	SAA
DE1111/35/SR	auto-hinge with H/O - RH	SAA

DE1110/L	blank hinge - non load bearing - LH	SAA
DE1110/R	blank hinge - non load bearing - RH	SAA

Hold open angle: 85° (hold open model only)

Opening angle: 180°

Door weight: 1 pr 35Kg

Packaging: 1 / 10 prs

Supplied handed (see page D-1023)

Supplied complete with fixing screws

See page D-1022 & D-1023 for all technical information including model specification for timber / metal doors in timber / metal frames etc...

### D&E Auto-hinge 100 series.

The 100 series is a door closer built into a pair of hinges. Comprising of 1 spring hinge and 1 damper hinge and offers a fully adjustable, controlled closing action.

#### Suitable for use on internal doors up to 40Kg.

DE112/40/L	auto-hinge - LH	silver
DE112/40/R	auto-hinge - RH	silver

DE112/40/SL	auto-hinge with H/O - LH	silver
DE112/40/SR	auto-hinge with H/O - RH	silver

DE110/L	blank hinge - non load bearing - LH	silver
DE110/R	blank hinge - non load bearing - RH	silver

Opening angle: 180°

Hold open angle: 85° & 150° (hold open model only)

Door weight: 1 pr 40Kg

Packaging: 1 / 10 prs

Supplied handed (see page D-1023)

Supplied complete with fixing screws

See page D-1022 & D-1023 for all technical information including model specification for timber / metal doors in timber / metal frames etc...



**D&E Auto-hinge 100 series.**

The 100 series is a door closer built into a pair of hinges. Comprising of 1 spring hinge and 1 damper hinge and offers a fully adjustable, controlled closing action.

**Suitable for use on internal doors up to 60Kg.**

DE113/60/L	auto-hinge - LH	silver
DE113/60/R	auto-hinge - RH	silver

DE113/60/SL	auto-hinge with H/O - LH	silver
DE113/60/SR	auto-hinge with H/O - RH	silver

DE110/L	blank hinge - non load bearing - LH	silver
DE110/R	blank hinge - non load bearing - RH	silver

Opening angle: 180°

Hold open angle: 85° & 150° (*hold open model only*)

Door weight: 1 pr 60Kg

Packaging: 1 / 10 prs

Supplied handed (see page D-1023)

Supplied complete with fixing screws

See page D-1022 & D-1023 for all technical information including model specification for timber / metal doors in timber / metal frames etc...

**D&E Auto-hinge 100 tri-set series.**

The 113 series tri-set is a door closer built into a set of hinges. The tri-set comprises of 2 spring hinges and 1 damper hinge and offers a fully adjustable, controlled closing action.

**Suitable for use on internal doors up to 80Kg.**

DE113/80/L	tri-set auto-hinge - LH	silver
DE113/80/R	tri-set auto-hinge - RH	silver

DE113/80/SL	tri-set auto-hinge with H/O - LH	silver
DE113/80/SR	tri-set auto-hinge with H/O - RH	silver

DE110/L	blank hinge - non load bearing - LH	silver
DE110/R	blank hinge - non load bearing - RH	silver

Opening angle: 180°

Hold open angle: 85° & 150° (*hold open model only*)

Door weight: 1 set 80Kg

Packaging: 1 / 10 sets

Supplied handed (see page D-1023)

Supplied complete with fixing screws

See page D-1022 & D-1023 for all technical information including model specification for timber / metal doors in timber / metal frames etc...





**D&E Auto-hinge 100 PC series - weather resistant.**

The D&E 113PC series is a door closer built into a pair of hinges. Comprising of 1 spring hinge and 1 damper hinge and offers a fully adjustable, controlled closing action which is enhanced by a thermal compensator.

**Suitable for use on external doors up to 60Kg.**

DE113PC/60/L	PC auto-hinge - LH	silver
DE113PC/60/R	PC auto-hinge - RH	silver

DE113PC/60/SL	PC auto-hinge with H/O - LH	silver
DE113PC/60/SR	PC auto-hinge with H/O - RH	silver

DE110PC/L	PC blank hinge - non load bearing - LH	silver
DE110PC/R	PC blank hinge - non load bearing - RH	silver

Opening angle: 180°

Hold open angle: 85° & 150°

Door weight: 1 pr 60Kg

Packaging: 1 / 10 prs

Supplied handed (see page D-1023)

Supplied complete with fixing screws

See page D-1022 & D-1023 for all technical information including model specification for timber / metal doors in timber / metal frames etc...

**D&E Auto-hinge 113 AEM.**

The D&E 113AEM is an electro-magnetic hold open device for use with the 112 / 113 Auto-hinge. It can be wired into a fire alarm system.

DE113AEM/L	113 AEM auto-hinge - LH	silver
DE113AEM/R	113 AEM auto-hinge - RH	silver

Opening angle: 180°

Hold open angle: adjustable 30° to 170°

Power: 24 / 48vdc (please specify)

Door weight: non load bearing

Packaging: each

Supplied handed (see page D-1023)

Supplied complete with fixing screws



**D&E Auto-hinge NK153 series.**

The D&E NK153 series is a door closer built into either a pair or set of hinges. There are two door weight configurations. The 60Kg models comprise of 1 spring hinge and 1 damper hinge. The 80Kg models comprise of 2 spring hinges and 1 damper hinge. Both offer a fully adjustable, controlled closing action.

**Suitable for use on frameless glass doors up to 60Kg.**

DENK153/60/L	NK153 auto-hinge - LH	silver
DENK153/60/R	NK153 auto-hinge - RH	silver

DENK153/60/SL	NK153 auto-hinge with HO - LH	silver
DENK153/60/SR	NK153 auto-hinge with HO - RH	silver

DENK150/L	blank hinge - non load bearing - LH	silver
DENK150/R	blank hinge - non load bearing - RH	silver

Opening angle: 180°

Hold open angle: 85° & 150°

Door weight: 1 pair 60Kg

Glass thickness: 8 to 12mm

Door dimensions: 2100 x 900mm

Packaging: 1 / 10 prs

Supplied handed (see page D-1023)

Supplied complete with fixing screws.

**Suitable for use on frameless glass doors up to 80Kg.**

DENK153/80/L	NK153 tri-set auto-hinge - LH	silver
DENK153/80/R	NK153 tri-set auto-hinge - RH	silver

DENK153/80/SL	NK153 tri-set auto-hinge with HO - LH	silver
DENK153/80/SR	NK153 tri-set auto-hinge with HO - RH	silver

DENK150/L	blank hinge - non load bearing - LH	silver
DENK150/R	blank hinge - non load bearing - RH	silver

Opening angle: 180°

Hold open angle: 85° & 150°

Door weight: 1 set 80Kg

Glass thickness: 8 to 12mm

Door dimensions: 2200 x 1000mm

Packaging: 1 / 10 prs

Supplied handed (see page D-1023)

Supplied complete with fixing screws



Part No.		Hand	Max Door Weight	Hold Open Position	Max Opening Angle	Max Door Dimensions
Without hold open	With hold open					

## 1000 series

### **To suit a Timber door in a Timber frame**

1111R	1111SR	Right	35Kg	85°	180°	W: 850mm H: 2000mm T: min 30mm
1111L	1111SL	Left				
1110R	—	Right	—	—		
1110L	—	Left	—	—		

## 100 series

### **To suit a Timber door in a Timber frame**

112R	112SR	Right	40Kg	85° & 150°	180°	W: 900mm H: 2100mm T: min 30mm
112L	112SL	Left				
113R	113SR	Right	60Kg			W: 1000mm H: 2200mm T: min 30mm
113L	113SL	Left				
113R Tri-Set	113SR Tri-Set	Right	80Kg			
113L Tri-Set	113SL Tri-Set	Left				
110R	—	Right	—	—		
110L	—	Left				

### **To suit a Timber door in a Steel frame**

122R-T	122SR -T	Right	40Kg	85° & 150°	180°	W: 900mm H: 2100mm T: min 30mm
122L-T	122SL-T	Left				
120R-T	—	Right	—	—		
120L-T	—	Left				

### **To suit a Steel door in a Steel frame**

143R-T	143SR-T	Right	60Kg	85° & 150°	180°	W: 900mm H: 2100mm T: min 30mm
143L-T	143SL-T	Left				
140R-T	—	Right	—	—		
140L-T	—	Left				

### **To suit a Steel door in a Steel frame**

244R-T	244SR-T	Right	120Kg	85° & 150°	180°	W: 1200mm H: 2100mm T: min 40mm
244L-T	244SL-T	Left				
240R-T	—	Right	—	—		
120L-T	—	Left				



Part No.		Hand	Max Door Weight	Hold Open Position	Max Opening Angle	Max Door Dimensions
Without hold open	With hold open					

## 100 PC series

### To suit timber, aluminium & lightweight steel doors

113R-PC	113SR-PC	Right	60Kg	85° & 150°	180°	W: 900mm H: 2100mm T: min 30mm
113L-PC	113SL-PC	Left				
110R-PC	—	Right	—	—		
110L-PC	—	Left				

### To suit aluminium, lightweight steel & partition doors

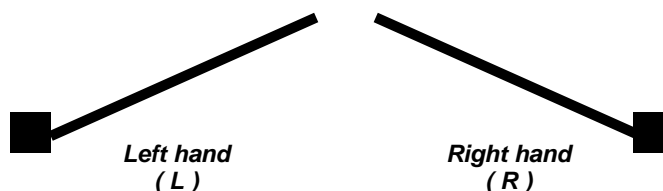
133R-PC	133SR-PC	Right	60Kg	85° & 180°	180°	W: 900mm H: 2100mm T: min 30mm
133L-PC	133SL-PC	Left				
130R-PC	—	Right	—	—		
130L-PC	—	Left				

### To suit a Steel door in a Steel frame

143R-T-PC	143SR-T-PC	Right	60Kg	85° & 150°	180°	W: 900mm H: 2100mm T: min 30mm
143L-T-PC	143SL-T-PC	Left				
140R-T-PC	—	Right	—	—		
140L-T-PC	—	Left				

### To suit a Steel door in a Steel frame

244R-T-PC	244SR -T-PC	Right	120Kg	85° & 150°	180°	W: 1200mm H: 2100mm T: min 40mm
244L-T-PC	244SL-T-PC	Left				
240R-T-PC	—	Right	—	—		
240L-T-PC	—	Left				







## D&E Auto-hinge - Centre Hang type

The D&E Auto-Hinge centre hang type is a concealed single action pivot door closer. Suitable for use on doors ranging from 40Kg up to 510Kg, it offers a controlled closing action.

DEA8K/L                      centre hang auto-hinge - LH - 40Kg  
DEA8K/R                      centre hang auto-hinge - RH - 40Kg

DEA8/L                        centre hang auto-hinge - LH - 50Kg  
DEA8/R                        centre hang auto-hinge - RH - 50Kg

DEA10/L                      centre hang auto-hinge - LH - 85Kg  
DEA10/R                      centre hang auto-hinge - RH - 85Kg

DEA12/L                      centre hang auto-hinge - LH - 100Kg  
DEA12/R                      centre hang auto-hinge - RH - 100Kg

DEA14/L                      centre hang auto-hinge - LH - 130Kg  
DEA14/R                      centre hang auto-hinge - RH - 130Kg

DEA16/L                      centre hang auto-hinge - LH - 160Kg  
DEA16/R                      centre hang auto-hinge - RH - 160Kg

DEA18/L                      centre hang auto-hinge - LH - 200Kg  
DEA18/R                      centre hang auto-hinge - RH - 200Kg

DEA22/L                      centre hang auto-hinge - LH - 240Kg  
DEA22/R                      centre hang auto-hinge - RH - 240Kg

DEA26/L                      centre hang auto-hinge - LH - 310Kg  
DEA26/R                      centre hang auto-hinge - RH - 310Kg

DEA30/L                      centre hang auto-hinge - LH - 410Kg  
DEA30/R                      centre hang auto-hinge - RH - 410Kg

DEA30H/L                    centre hang auto-hinge - LH - 510Kg  
DEA30H/R                    centre hang auto-hinge - RH - 510Kg

Opening angle:            180°

Door weight:              all door weights shown above are subject to certain criteria -  
see pages D-1025 & D-1026 for further information.

Finish:                        stove enamelled

Packaging:                  each

Supplied handed (see page D-1025)

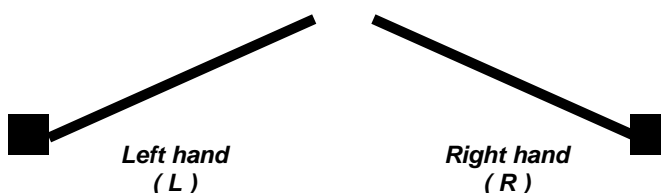
Supplied complete with fixing screws



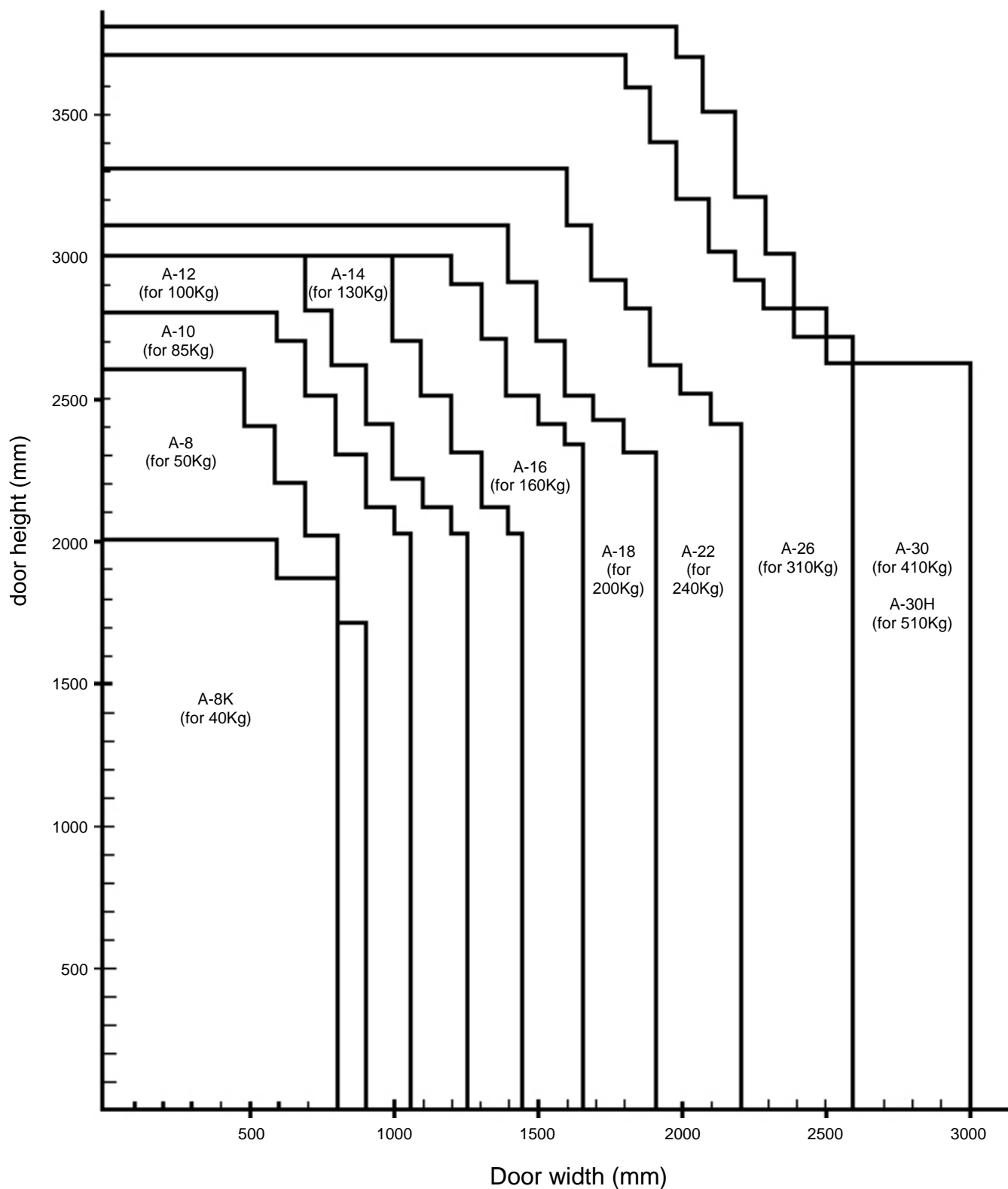
model no.	door dimensions (mm)			max door weight	standard closing force	max opening angle
	width	height	thickness			
A-8K	800 (max)	1850 (max)	36 (min)	40	6.9 N-m	180°
A-8		2000		50	8.9 N-m	
A-10	1000	2100	40	85	10.8 N-m	
A-12	1200			100	15.7 N-m	
A-14	1400			130	19.7 N-m	
A-16	1600	2400	45	160	24.6 N-m	
A-18	1800		50	200	41.2 N-m	
A-22	2200			240	49.1 N-m	
A-26	2600	2600	55	310	60.9 N-m	
A-30	3000			410	68.7 N-m	
A-30H				510		

1. Select an appropriate model according to the dimensions (height x width) of the door.  
(See chart on page D-1026)
  2. Ensure that the door weight is within the guidelines set out in the table below.
- N.B. The chart on page D-1026 is based on a wind velocity of 3m/sec. If being used in conjunction with a smoke ventilation system or should the wind conditions be any greater then please contact the sales office.

model	weight / 1m <sup>2</sup>	type of door
A-8K	27Kg/m <sup>2</sup> max	steel door (only for wicket door)
A-8	31Kg/m <sup>2</sup> max	steel door
A-10, A-12	39Kg/m <sup>2</sup> max	
A-14, A-16	41Kg/m <sup>2</sup> max	
A-18, A-22, A-26	45Kg/m <sup>2</sup> max	
A-30	52Kg/m <sup>2</sup> max	
A-30H	65Kg/m <sup>2</sup> max	









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## D&E Soss invisible door closer hinge

The D&E Soss invisible door closer hinge is a completely concealed door closer. It is ideally suited to environments where an overhead closer can not be installed.

For use with the Soss DE218 hinges only.

Fire pack available for use on 30 minute fire doors - *contact the office for details.*

DE218DC/B	soss door closer hinge	brass plated
DE218DC/SNP	soss door closer hinge	sat. nickel plated
DE218F/B	soss fire rated hinge	brass plated
DE218F/SNP	soss fire rated hinge	sat. nickel plated

Door weight: 25Kg

*Illustration shows 2 x standard DE218F Soss hinges & 1 x DE218DC Soss door closer hinge. Additional hinges, of either model, may be required. See below how to identify what your requirements are or please fax or email the office with the full details of your door, including the ironmongery.*

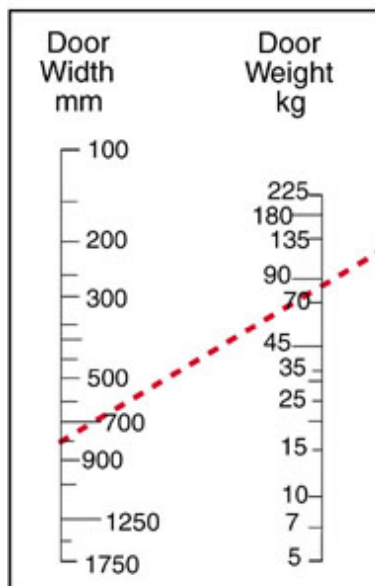
## Identifying the correct hinge

The stringent method of identifying the correct hinge for the task in hand is to follow these four easy steps.

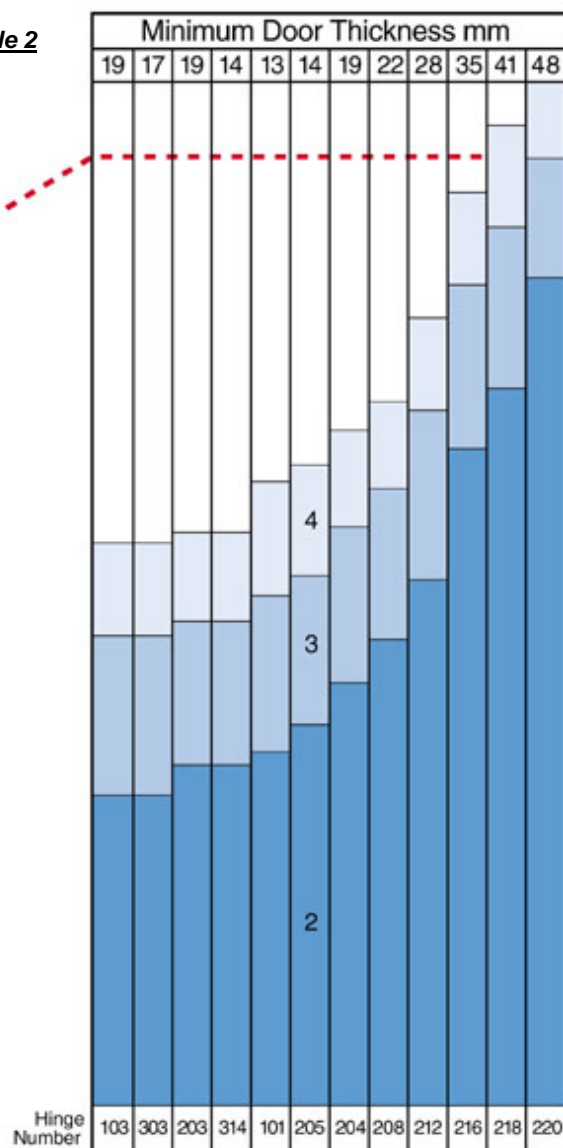
1. Determine the width, thickness and height of the door.
2. Once the above is achieved go to table 1 *overleaf*. Locate the width and the weight of your door and draw a straight line through those two points, continuing the line on to the left hand edge of table 2. An example of this has been illustrated by a dotted line for a door 800mm wide and 85Kg in weight.
3. Where the line meets the left hand edge of table 2, draw a horizontal line the full width of the table. This determines your recommended hinge.
4. If you look at the dotted line this meets a light blue box, this indicates that if your door has a minimum thickness of 41mm then you can use 4 hinges type DE218, or, if you follow the line through to the next column because your door has a minimum thickness of 48mm then you must use 3 hinges of type DE220.



**Table 1**



**Table 2**





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### D&E transom closer

The *DEGRL100* transom closer is a double action door closer that is installed in the transom of the door. Fully adjustable closing and latching action. Successfully type tested to EN1154 and has achieved the CE mark.

*DEGRL100450* double action transom door closer EN 1-4 complete with top arm and floor pivot silver

*DEGRL100455* body only - incl. cover plate silver

*DEGRL100820* bottom pivot with arm for side assembly  
*DEGRL100830* top pivot with arm for side assembly

EN classification:

3	8	1-4	1	1	4
---	---	-----	---	---	---

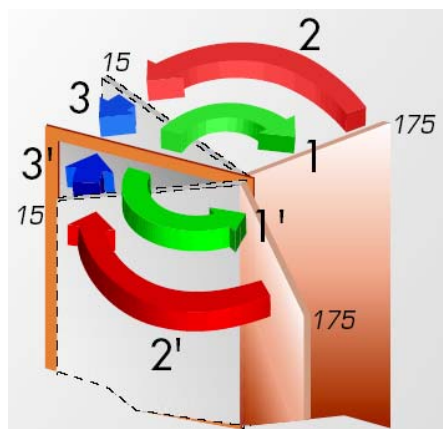
Size: 1-4 adjustable by allen key

Max door width: 1100mm

Max door weight: 120Kg

Max opening angle: 170 degrees

Dimensional data: see page D-1030 & D-1031



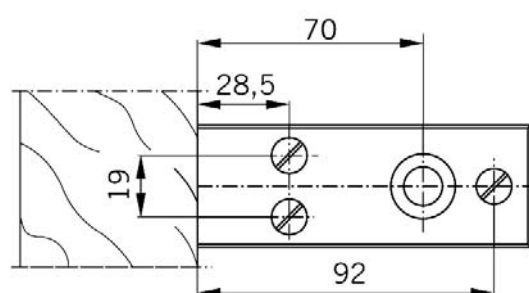
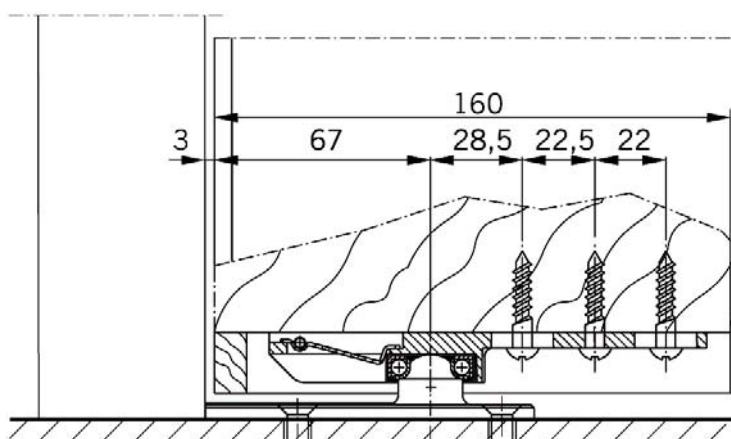
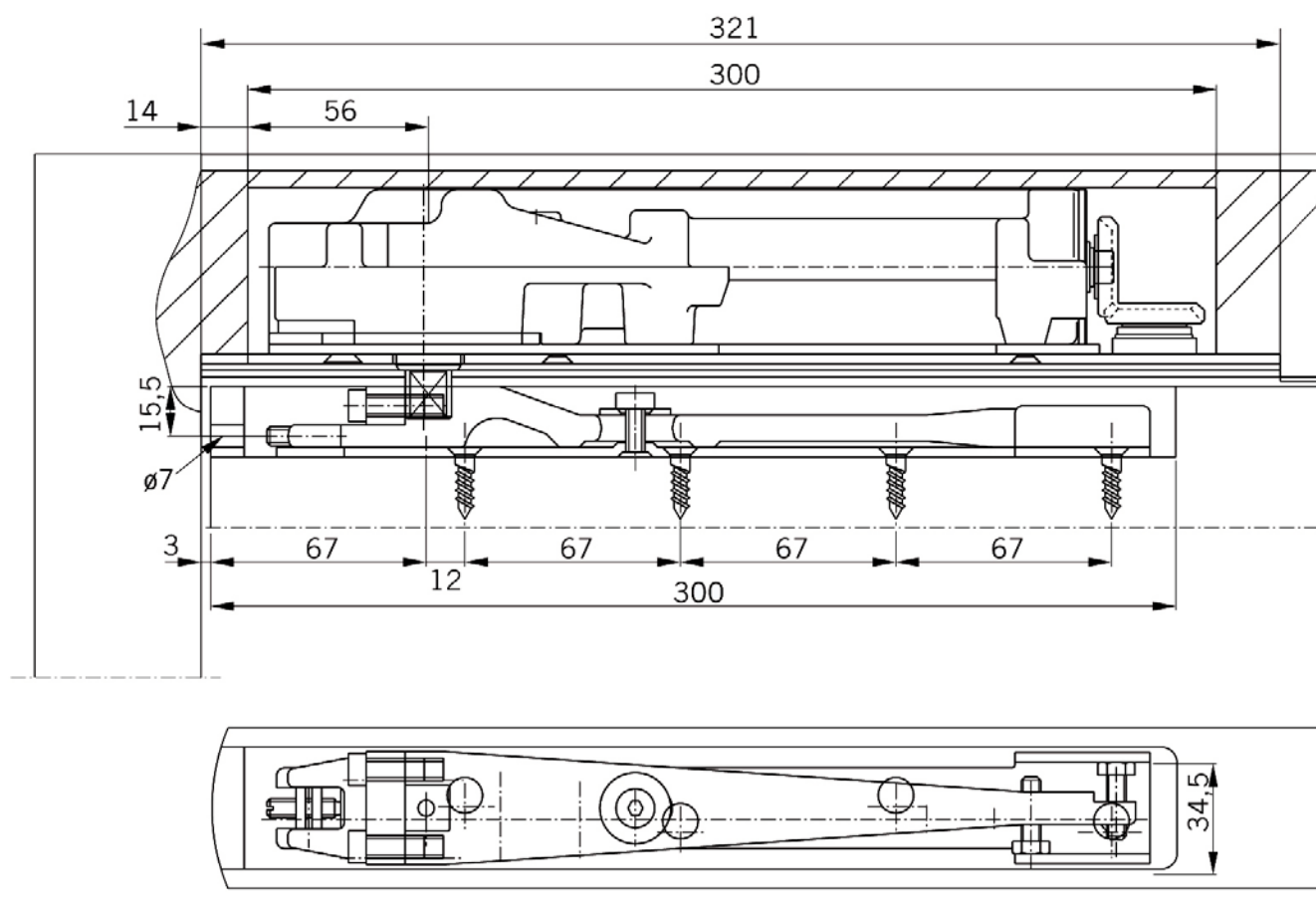
### Operation

Zone 1 & 1' door opening through a range of 175° in either direction.

Zone 2 & 2' 175° & 15° controlled close - adjustable by needle valve

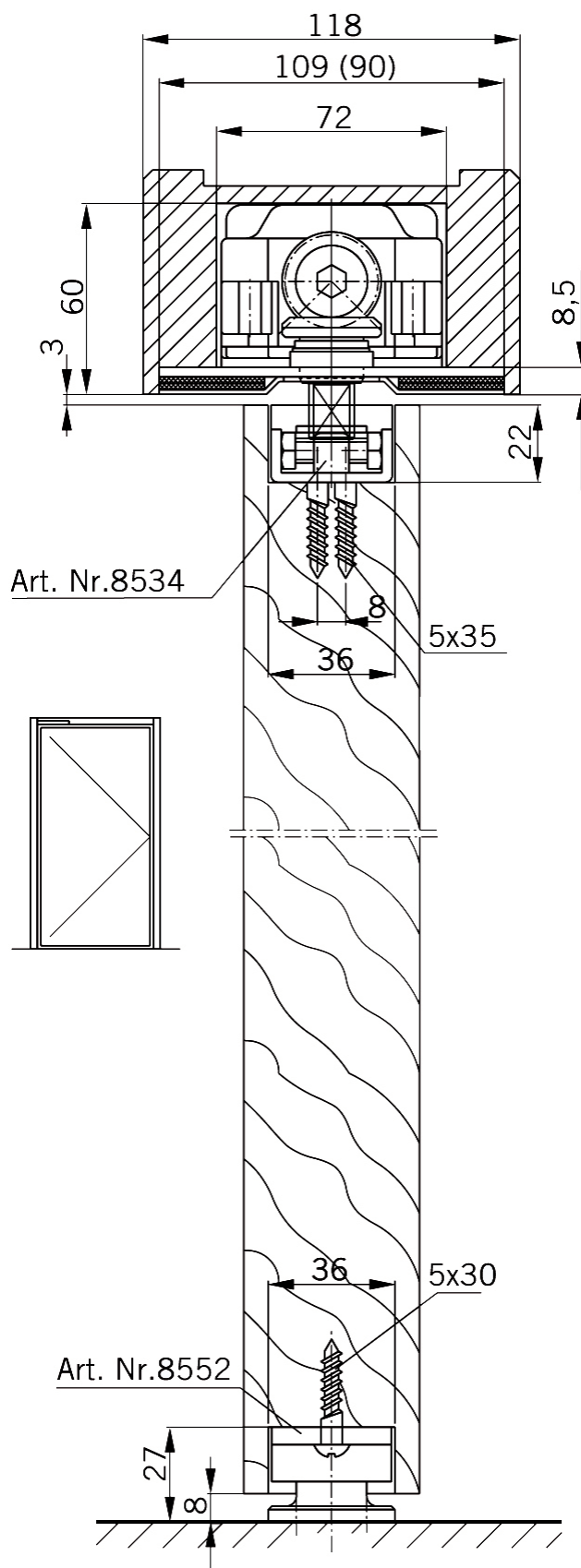
Zone 3 & 3' 15° - 0° controlled latching angle - adjustable by needle valve







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## D&E transom door closer

The Groom GRL050 series transom door closer has been developed mainly for use with aluminium or steel door frames. The closer body is installed in the transom by setting the closer body in such a manner that the revolving shaft faces downwards and is connected with the driving arm for the opening and closing of the door. All mechanical functions have been installed in the upper side as to avoid cutting away the floor as required in the case of a floor spring. Successfully type tested to EN1154.

### Side Load

DEGRL053051	transom door closer - EN1154 size 3 - complete
DEGRL053041	transom door closer with H/O- EN1154 size 3 - complete
DEGRL054051	transom door closer - EN1154 size 4 - complete
DEGRL054041	transom door closer with H/O- EN1154 size 4 - complete

### End Load

DEGRL053052	transom door closer - EN1154 size 3 - complete
DEGRL053042	transom door closer with H/O- EN1154 size 3 - complete
DEGRL054052	transom door closer - EN1154 size 4 - complete
DEGRL054042	transom door closer with H/O- EN1154 size 4 - complete

### Accessories

DEGRL000831	RA-853A-40 side load arm
DEGRL000832	RA-513A-77 end load arm
DEGRL000833	RA-R513A-73 pinch free side load arm
DEGRL000821	SCR-Q101 heavy duty bottom pivot

EN classification:	Size 3	3	8	3	0	1	4
	Size 4	3	8	4	0	1	4

Std spindle height: 12mm  
17mm & 20mm are available to special order - see Groom brochure pages 28 & 29)

Hold open angle: 90°





## D&E floor spring

The *DEGRP100* floor spring is a double action door closer that is installed in the floor. Fully adjustable closing and latching action. Successfully type tested to EN1154 and has achieved the CE mark.

### Body only

*DEGRP100350* floor spring body without H/O - EN 3

*DEGRP100340* floor spring body with H/O - EN 3

EN classification:

3	8	3	1	1	4
---	---	---	---	---	---

Max door width: 950mm

Size: EN 3

Max door weight: 80Kg

*DEGRP100450* floor spring body without H/O - EN 4

*DEGRP100440* floor spring body with H/O - EN 4

EN classification:

3	8	4	1	1	4
---	---	---	---	---	---

Max door width: 1100mm

Size: EN 4

Max door weight: 100Kg

*DEGRP100820* cover plate sat. stainless steel

*DEGRP100810* square pivot for *DEGRP100*

*DEGRP100811* rectangular pivot for *DEGRP100*

*DEGRP100820* aluminium top centre for *DEGRP100*

*DEGRP100821* steel top centre for *DEGRP100*

*DEGRP100822* hinge bearing

*DEGRP100810* bottom strap for rectangular pivot

*DEGRP100810* bottom strap for rectangular pivot for use on aluminium doors

Size: 1-4 adjustable by allen key

Max door width: 1100mm

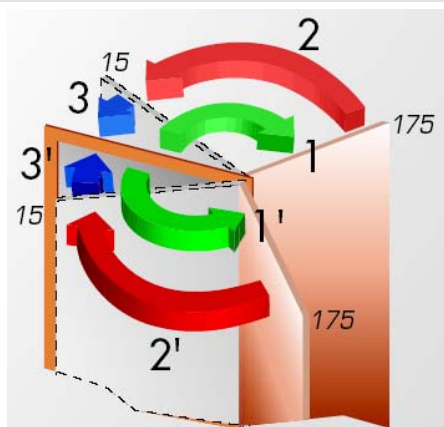
Max door weight: 120Kg

Max opening angle: 170 degrees

Dimensional data: see page D-1034



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## Operation

Zone 1 & 1'

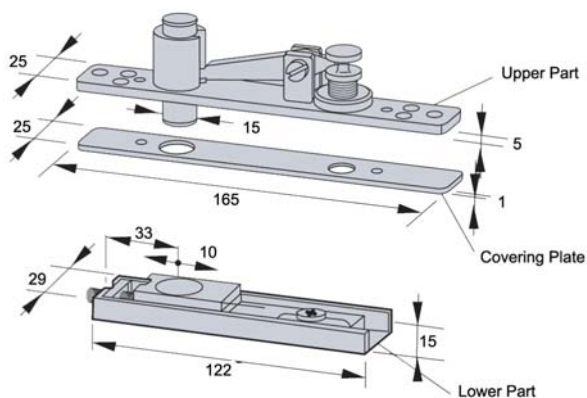
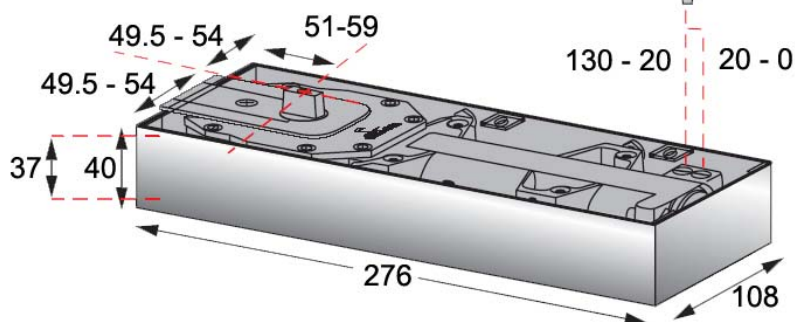
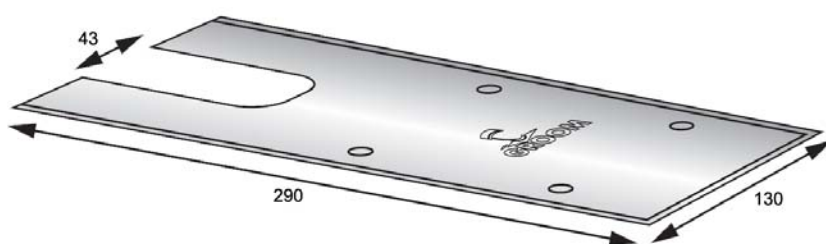
door opening through a range of 175° in either direction.

Zone 2 & 2'

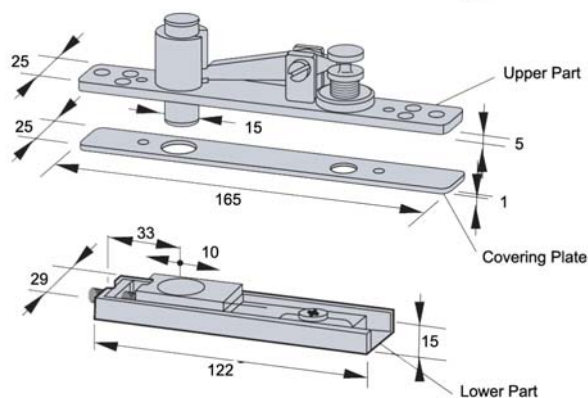
175° & 15° controlled close - adjustable by needle valve

Zone 3 & 3'

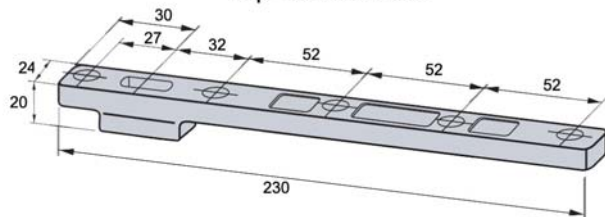
15° - 0° controlled latching angle



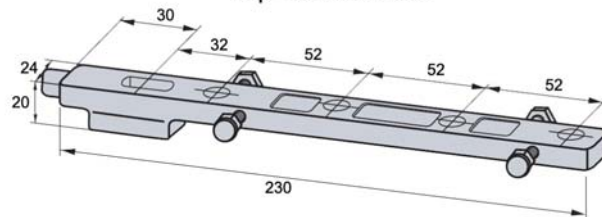
Top Centre Steel



Top Centre Steel



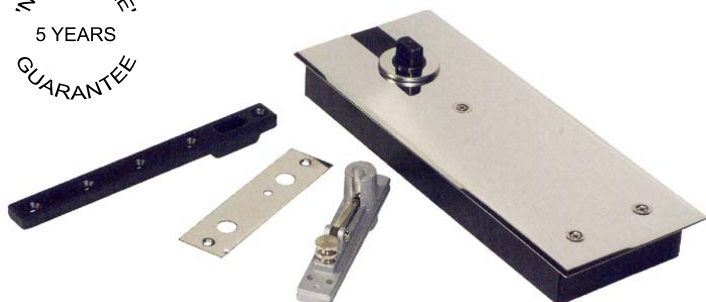
Bottom strap



Bottom strap - to suit aluminium door



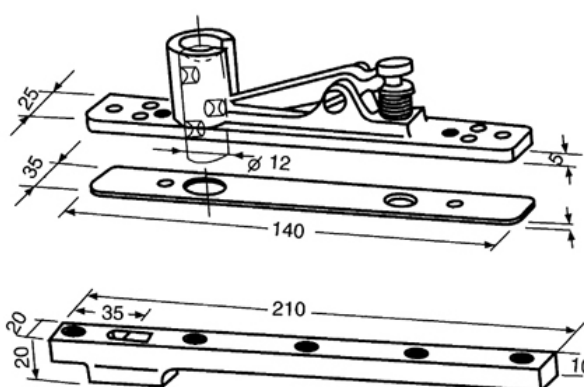
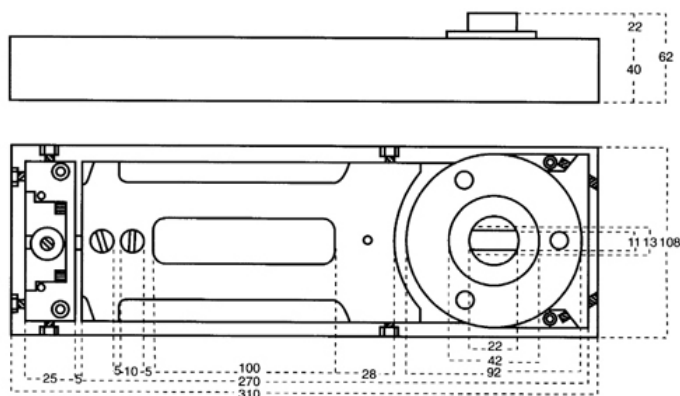
NO QUIBBLE  
5 YEARS  
GUARANTEE



## D&E 200 series floor spring

The *D&E 200 Series* floor spring is a double action, dual valve closer with separate adjustment for the closing & latching speeds. Positive centring for alignment and to hold the door closed in normal weather conditions.

<i>DE230/PSS</i>	size 3 floor spring with H/O	pol. stainless steel
<i>DE230/PB</i>	size 3 floor spring with H/O	pol. brass / PVD
<i>DE231PSS</i>	size 3 floor spring	pol. stainless steel
<i>DE231/PB</i>	size 3 floor spring	pol. brass / PVD
door dimensions:	950 x 2100mm	
Door weight:	80Kg	
Hold open angle:	90° ( <i>DE230 model only</i> )	
Max opening angle:	105°	
Adjustment in cement box:	length - 6mm	
	width - 8mm	
	height - 4mm	







## D&E hydraulic gate closer

The 'adeco' DEDC2600 gate closer is a single action closer with controlled closing action. The separate adjustment for both the closing & latching speeds allow for a personalised closing motion. The DEDC2600 is also supplied as standard with an optional hold open facility.

DEDC2600 gate closer black

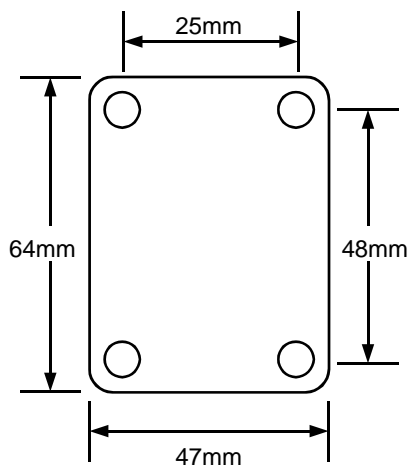
Max gate width: 1000mm

Gate weight: 50Kg

Hold open angle: 90°

Max opening angle: 90°

Dimensions: body length incl mounting plate 320mm  
projection 61mm



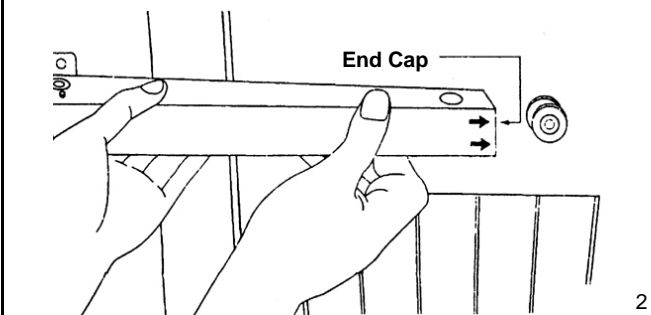
Mounting plate dimensions



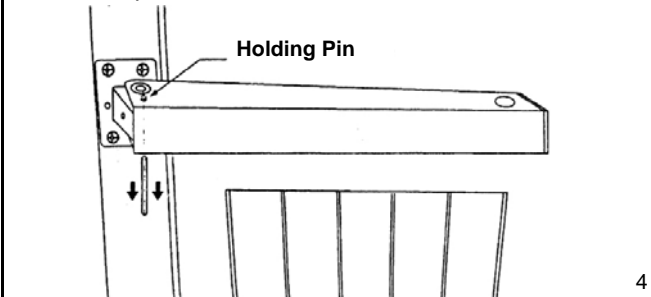
- The DC2600 can be installed at the top, middle or bottom of the gate on the 'PULL' side only.
- The face of the gate must be flush with the face of the gatepost.
- The gate should be hinged as close to the gate post as possible.
- The pivot point of the closer must be inline with the centre pivot line of the hinges. It may be necessary to fabricate a bracket or spacer to allow the closer to be installed correctly.
- The gate must swing freely on its hinges prior to installing the closer and the hinges must be greased regularly.
- The guide roller must be fitted. It may be necessary to fabricate a bracket / spacer to mount receive the guide roller.
- The gate must not be allowed to be opened more than 90°. If this is a possibility then a floor mounted door / gate stop should be installed.
- The holding pin (see fig. 4) must not be removed until the closer is fitted.

Maximum Gate Weight: 50Kgs / Maximum Gate Width: 1000mm

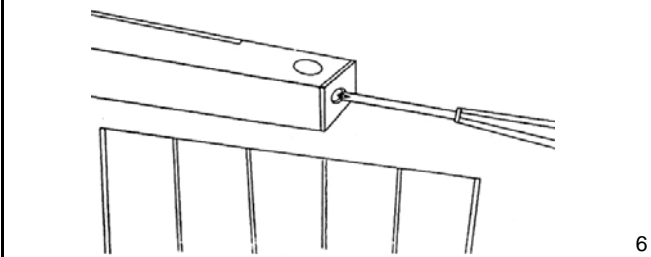
- 2:** Remove the end cap and slide the closer on to the guide roller. Replace the end cap.



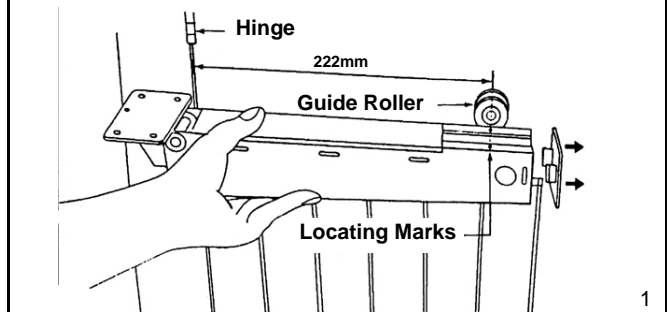
- 4:** Open the gate slowly until the holding pin either drops out or can be removed easily. If the holding pin is not removed prior to operating the gate, then the gate will not open and damage the closer may occur.



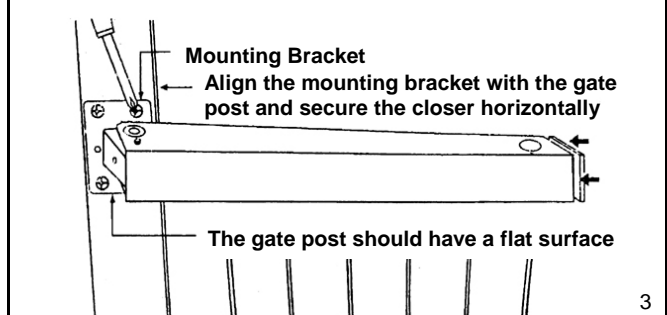
- 6:** With the gate in the closed position, the final latching speed can be adjusted in the same manner as part 5 of these instructions.



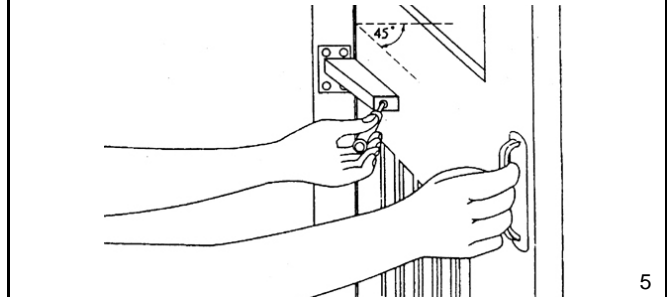
- 1:** From the centre pivot line of the hinges, measure 222mm and secure the guide roller to the gate. This will line up with the locating marks which are on the body of the closer.



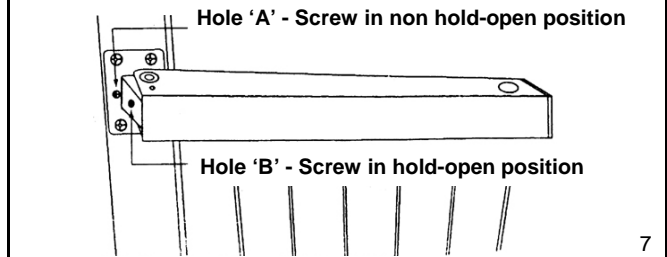
- 3:** Secure the mounting bracket to the gate post with the four (4) screws supplied.



- 5:** Holding the door open at about 45°, you can adjust the closing speed as required. Adjustment is via a screwdriver and should be in ¼ turn increments clockwise or anti-clockwise for a slower or faster closing action.



- 7:** To engage the hold-open function, simply remove the screw from hole 'A' and screw it into hole 'B' for safe keeping. To remove the hold open function simply reverse this procedure. Do not force the closer beyond the screw as doing so will damage the closer.







## D&E 'tirez' gate closer

The D&E *tirez* gate closer is a helical door spring with a pivoted arm.

The arm locates between two (2) rollers which are mounted on the door to eliminate any wear on the door.

The closing speed is adjusted by inserting the tension bar into a hole in the capstan and increasing / decreasing the tension as required. The desired tension is then held in place by a pin that is inserted into an adjacent hole.

DEGR152201      gate closer - 40Kg      silver

DEGR154201      heavy duty gate closer - 80Kg      silver

Max opening angle: 180°



## D&E 'spiral' gate closer

The D&E *spiral* gate closer is a helical spring.

The closing speed is adjusted by the inserting the tension bar into a hole in the capstan and increasing / decreasing the tension as required. The desired tension is then held in place by a pin that is inserted into an adjacent hole.

DEGR172001      gate closer - 20Kg      silver

DEGR174001      gate closer - 40Kg      silver

Max opening angle: 180°