

# Fire damper

# WK45



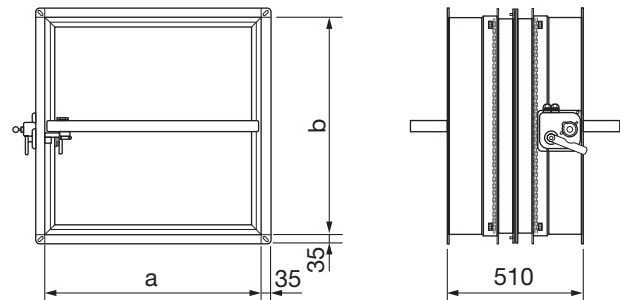
## Description

Rectangular fire damper for air duct system that penetrate fire resistance walls or floors. With 40 mm thick closing blade made from refractory material. Casing leakage performance class C according to Standard EN1751:2014 section C.3.

The damper prevents fire and smoke from spreading through the air duct system. Tested and classified in accordance with EN 1366-2 and EN 13501-3 with 500 Pa negative pressure and CE marked in accordance with EN 15650.

Product code		
Type	WK	Rectangular fire damper
Series	45	Blade thickness 40 mm
Manual command		
Command type	B	Manual command
	M	Manual command with magnet
Position indication microswitches	S0	Without position microswitches
	S2	With two position microswitches
	SA	With open blade microswitch
	SC	With closed blade microswitches
Magnet	M0	Without magnet (only for command type "B")
	MR	With power supply interruption magnet, 24 V DC only
	MI	With power supply input magnet, 24 V DC
	MY	With power supply interruption magnet 230 V DC
	MZ	With power supply input magnet 230 V DC
Motorized		
Motor type	VSS	Siemens motor GRA 126 (24V)
	DSS	Siemens motor GRA 326 (230V)
	VPS	Siemens motor GNA 126 (24V)
	DPS	Siemens motor GNA 326 (230V)
	VGS	Siemens motor GGA 126 (24V)
	DGS	Siemens motor GGA 326 (230V)
	VMB	Belimo motor BFN24T (24V)
	VGB	Belimo motor BF24T (24V)
	DMB	Belimo motor BFN230T (230V)
	DGB	Belimo motor BF230T (230V)
TMB	Belimo motor BFN24T-ST (24V)	
TGB	Belimo motor BF24T-ST (24V)	
Base (a)	XYZ	Nominal dimension (mm)
Height (b)	XYZ	Nominal dimension (mm)

## Dimensions



a nom	b nom
200	200
250	250
300	300
350	350
400	400
450	450
500	500
550	550
600	600
650	650
700	700
750	750
800	800
850	
900	
950	
1000	
1050	
1100	
1150	
1200	
1250	
1300	
1350	
1400	
1450	
1500	

Combinations of base (a) and height (b) dimensions are available, not available combinations: 200x700, 250x700, 200x750, 250x750, 300x750, 350x750, 200x800, 250x800, 300x800, 350x800.

It is possible to pair two dampers for bigger duct dimension.

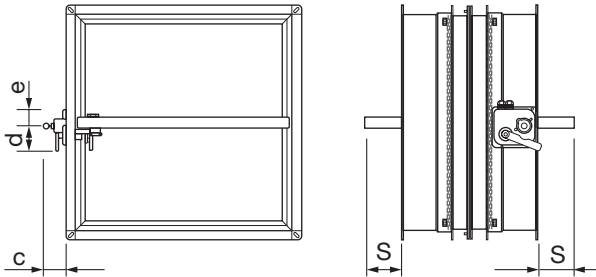
## Ordering example

	<b>WK45M</b>	<b>400</b>	<b>450</b>	<b>SAMR</b>
Mechanism type				
Side a				
Side b				
Control mechanism				

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## Dimensions



<b>b nom</b>	<b>S (blade exposition) mm</b>
200	-
250	-
300	-
350	-
400	-
450	-
500	-
550	9
600	34
650	59
700	84
750	109
800	134

### Mechanism type:

WK45B - Manual basic

WK45M - Manual with magnet

WK45 VGB/DGB - Belimo motorized version

WK45 VPS/DPS - Siemens motorized version

<b>Mechanism type</b>	<b>c mm</b>	<b>d mm</b>	<b>e mm</b>
WK45B	45	184	57
WK45M	84	184	57
WK45VGB/DGB	67	155	93
WK45VPS/DPS	74	177	78

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## Technical data

Fire resistance classification according to EN 13501-3

		<b>EI 180 S (500 Pa)</b>	<b>EI 120 S (500 Pa)</b>	<b>EI 90 S (500 Pa)</b>	<b>EI 60 S (500 Pa)</b>	
<b>Rigid wall</b>	<b>EI 120 S – Installation within vertical rigid wall</b> Wall minimum thickness 100 mm Wall minimum density 500 kg/m <sup>3</sup> Mortar or plaster putty sealing ve (i↔o)	Wet sealing method	-	a×b min 200×200 max 1500×800	a×b min 200×200 max 1500×800	a×b min 200×200 max 1500×800
	<b>EI 120 S – Installation within vertical rigid wall</b> Wall minimum thickness 100 mm Wall minimum density 500 kg/m <sup>3</sup> Plasterboard and rock wool 100 kg/m <sup>3</sup> sealing ve (i↔o)	Dry sealing method	-	a×b min 200×200 max 1500×800	a×b min 200×200 max 1500×800	a×b min 200×200 max 1500×800
	<b>EI 180 S Installation within vertical rigid wall</b> Wall minimum thickness 140 mm Wall minimum density 500 kg/m <sup>3</sup> Mortar sealing ve (i↔o)	Wet sealing method	a×b min 200×200 max 1500×800	a×b min 200×200 max 1500×800	a×b min 200×200 max 1500×800	a×b min 200×200 max 1500×800
<b>Flexible wall</b>	<b>EI 120 S – Installation within vertical light wall (plasterboard)</b> Wall min. thickness 100 mm Wall rock wool min. density 100 kg/m <sup>3</sup> Plasterboard and mortar or plaster putty sealing ve (i↔o)	Wet sealing method	-	a×b min 200×200 max 1500×800	a×b min 200×200 max 1500×800	a×b min 200×200 max 1500×800
	<b>EI 90 S – Installation within vertical light wall (plasterboard)</b> Wall min. thickness 100 mm Wall rock wool min. density 100 kg/m <sup>3</sup> Plasterboard and rock wool 100 kg/m <sup>3</sup> sealing ve (i↔o)	Dry sealing method	-	-	a×b min 200×200 max 1500×800	a×b min 200×200 max 1500×800
	<b>EI 90 S – Installation within vertical light wall (gypsum block wall)</b> Wall min. thickness 70 mm Wall min. density 995 kg/m <sup>3</sup> Plaster putty sealing ve (i↔o)	Wet sealing method	-	-	a×b min 200×200 max 1000×600	a×b min 200×200 max 1000×600
	<b>EI 120 S – Installation within vertical light wall (gypsum block wall)</b> Wall min. thickness 100 mm Wall min. density 995 kg/m <sup>3</sup> Plaster putty sealing ve (i↔o)	Wet sealing method	-	a×b min 200×200 max 1000×600	a×b min 200×200 max 1000×600	a×b min 200×200 max 1000×600
<b>Floor</b>	<b>EI 90 S – Installation within floor</b> Floor min. thickness 100 mm Floor min. density 650 kg/m <sup>3</sup> Mortar sealing ho (i↔o)	Wet sealing method	-	-	a×b min 200×200 max 1500×800	a×b min 200×200 max 1500×800
	<b>EI 120 S – Installation within floor</b> Floor min. thickness 150 mm Floor min. density 650 kg/m <sup>3</sup> Mortar sealing ho (i↔o)	Wet sealing method	-	a×b min 200×200 max 1500×800	a×b min 200×200 max 1500×800	a×b min 200×200 max 1500×800
	<b>EI 180 S – Installation within floor</b> Floor min. thickness 140 mm Floor min. density 2200 kg/m <sup>3</sup> Mortar sealing ho (i↔o)	Wet sealing method	a×b min 200×200 max 1500×800	a×b min 200×200 max 1500×800	a×b min 200×200 max 1500×800	a×b min 200×200 max 1500×800

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## Technical data

Fire Batt (Weichschott) sealings

			EI 180 S (300 Pa)	EI 120 S (300 Pa)	EI 90 S (300 Pa)	EI 60 S (300 Pa)
<b>Rigid wall</b>	<b>EI 90 S – Installation within vertical rigid wall with Weichschott sealing</b>					
	Wall min. thickness 100 mm Wall min. density 550 kg/m <sup>3</sup> Rock wool 140kg/m <sup>3</sup> and endothermic varnish sealing ve (i↔o)	Wet sealing method	-	-	a×b min 200×200 max 1500×800	a×b min 200×200 max 1500×800
<b>Flexible wall</b>	<b>EI 90 S – Installation within vertical light wall (plasterboard) with Weichschott sealing</b>					
	Wall min. thickness 100 mm Wall rock wool min. density 100 kg/m <sup>3</sup> Rock wool 140kg/m <sup>3</sup> and endothermic varnish sealing ve (i↔o)	Wet sealing method	-	-	a×b min 200×200 max 1500×800	a×b min 200×200 max 1500×800
<b>Flexible wall</b>	<b>EI 90 S – Installation within vertical light wall (gypsum block wall) with Weichschott sealing</b>					
	Wall min. thickness 100 mm Wall min. density 995 kg/m <sup>3</sup> Rock wool 140kg/m <sup>3</sup> and endothermic varnish sealing ve (i↔o)	Wet sealing method	-	-	a×b min 200×200 max 1500×800	a×b min 200×200 max 1500×800
<b>Floor</b>	<b>EI 120 S Installation within floor and Fire Batt (Weichschott) sealing</b>					
	Floor minimum thickness 150 mm Floor minimum density 650 kg/m <sup>3</sup> Rock wool 140 kg/m <sup>3</sup> and endothermic varnish sealing ho (i↔o)	Wet sealing method	-	a×b min 200×200 max 1500×800	a×b min 200×200 max 1500×800	a×b min 200×200 max 1500×800

- a×b nominal dimensions of damper
- ve vertical installation
- ho horizontal installation
- (i↔o) origin of fire is irrelevant
- Pa negative pressure
- E integrity
- I thermal insulation
- S smoke seal

For more detailed information visit:

<http://www.mp3-italia.it>

The fire resistance classifications refer to the conditions obtained by rigorously applying the instructions indicated in the Technical Manual, with reference both to the construction of the wall/ceiling and the installation of the damper.