

Fire damper

WK45



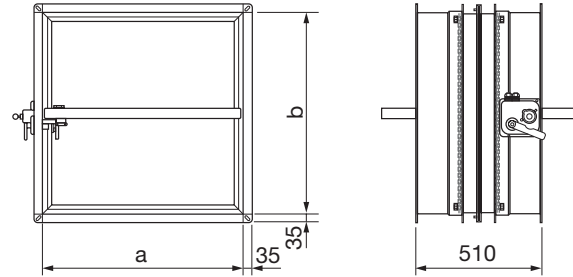
Description

Rectangular fire damper for air duct system that penetrate fire resistance walls or floors.

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.

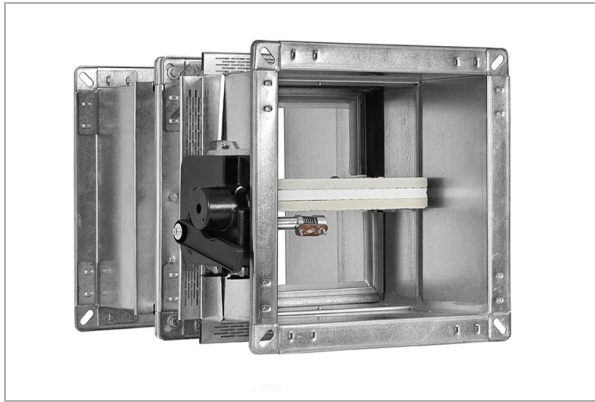
It is possible to pair two dampers for bigger duct dimension.

Ordering example

| | | | | |
|-------------------|-------|-----|-----|------|
| | WK45M | 400 | 450 | SAMR |
| Mechanism type | | | | |
| Side a | | | | |
| Side b | | | | |
| Control mechanism | | | | |

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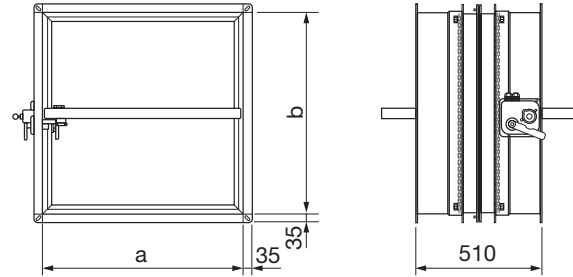
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| Manual command | | |
| Command type | B | Manual command |
| | M | Manual command with magnet |
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| | S2 | With two position microswitches |
| | SA | With open blade microswitch |
| | SC | With closed 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) |
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| | VGS | Siemens motor GGA 126 (24V) |
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| | 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 | b |
|------|-----|
| nom | 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.

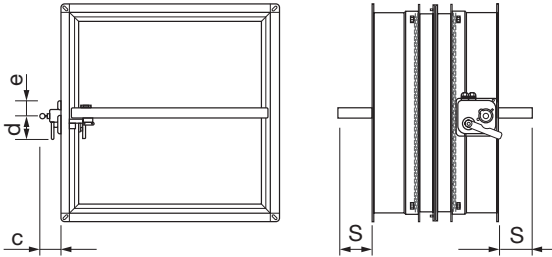
Ordering example

| | | | | |
|-------------------|-------|-----|-----|------|
| | WK45M | 400 | 450 | SAMR |
| Mechanism type | | | | |
| Side a | | | | |
| Side b | | | | |
| Control mechanism | | | | |

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Dimensions



| b nom | S (blade exposition) mm |
|------------------|--|
| 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

| Mechanism type | c mm | d mm | e mm |
|-----------------------|-----------------|-----------------|-----------------|
| 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

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

| | | | El 180 S (300 Pa) | El 120 S (300 Pa) | El 90 S (300 Pa) | El 60 S (300 Pa) | |
|----------------------|---|--------------------|----------------------|------------------------------------|------------------------------------|------------------------------------|--|
| Rigid wall | El 90 S – Installation within vertical rigid wall with Weichschott sealing | | | | | | |
| | Wall min. thickness 100 mm Wall min. density 550 kg/m ³ Rock wool 140kg/m ³ 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 | |
| Flexible wall | El 90 S – Installation within vertical light wall (plasterboard) with Weichschott sealing | | | | | | |
| | Wall min. thickness 100 mm Wall rock wool min. density 100 kg/m ³ Rock wool 140kg/m ³ 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 | |
| Flexible wall | El 90 S – Installation within vertical light wall (gypsum block wall) with Weichschott sealing | | | | | | |
| | Wall min. thickness 100 mm Wall min. density 995 kg/m ³ Rock wool 140kg/m ³ 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 | |
| Floor | El 120 S Installation within floor and Fire Batt (Weichschott) sealing | | | | | | |
| | Floor minimum thickness 150 mm Floor minimum density 650 kg/m ³ Rock wool 140 kg/m ³ 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.