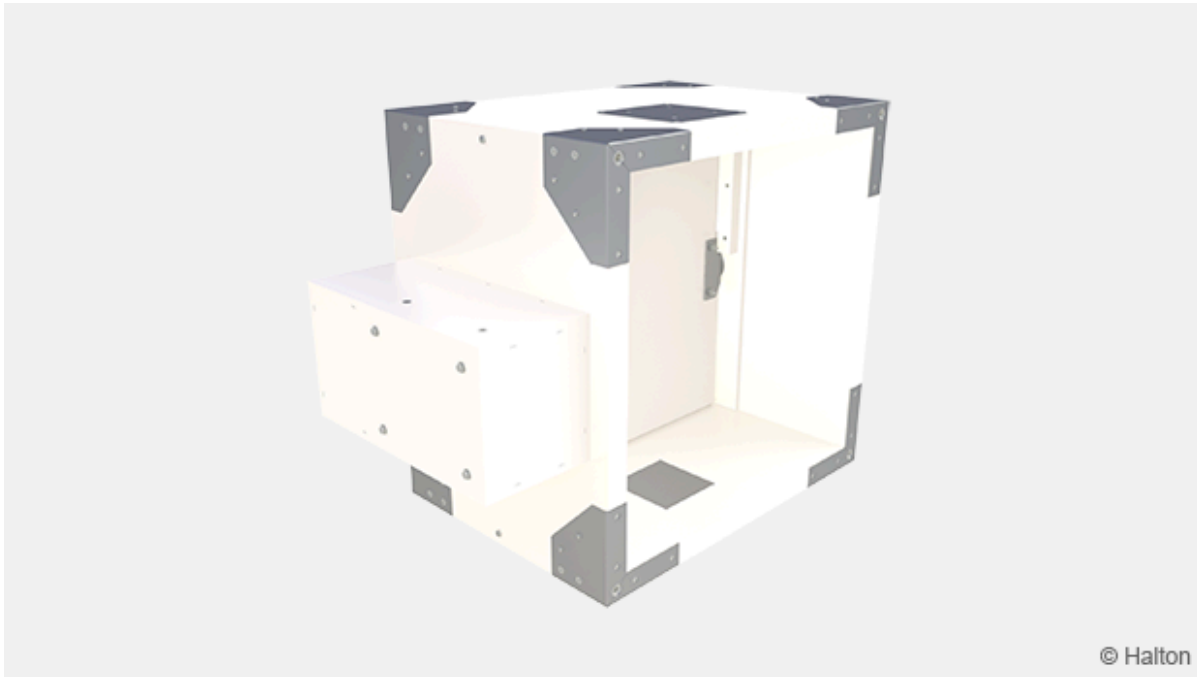


# Halton Sec Mighty Rectangular (SMR ) – Smoke control damper (MAmulti, AAmulti)



## Overview

This multi compartment smoke control damper is the most trusted choice in the market for demanding environments. It is manufactured of mineral fibre and this fire proof material enables the opening of blade during fire. The smoke control damper is suitable for vertical and horizontal installation on smoke extract ducts and concrete, masonry or lightweight structures. Can also be installed direct to the surface of the structure. Fire resistance class for all installation options is provided up to EI 120 S requirements.

## Features

- Installation to multi zone fire compartment for automatically (AA) or manually (MA) activated systems
- Supplied with electrical non-spring return actuator (24 V or 230 V)
- Sizes from 200×200 mm up to 1600×1000 mm are available
- Maximum air speed through smoke control damper in open position is 12 m/s
- Suitability for use in smoke extraction ducts with a maximum of 1500 Pa under pressure
- Damper casings and blades are made of fire resistant asbestos free boards (mineral fibres), fasteners are galvanized steel
- No spare parts or additional installation frames needed, regardless of installation method

## Installation options

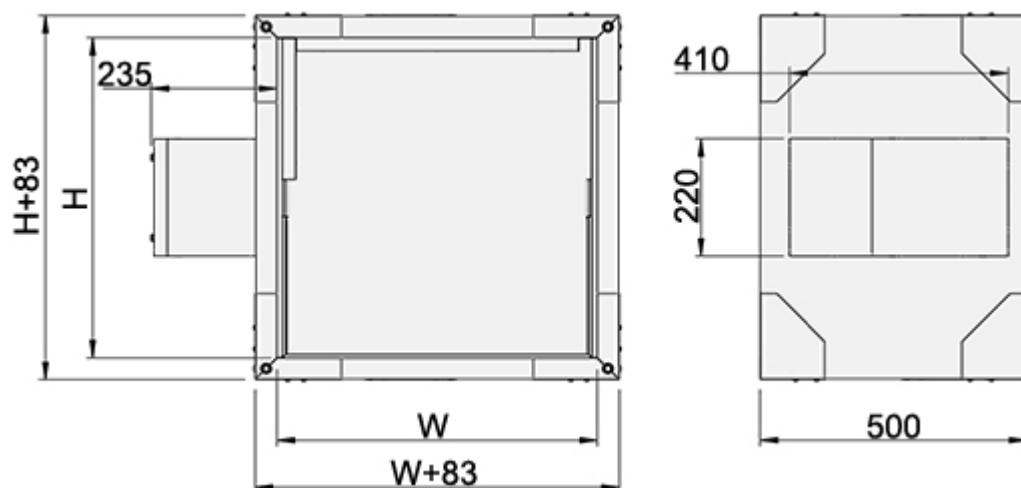
- Suitability for all installation methods
- CE marked for installation in concrete, masonry or lightweight structure with fire resistance classes of EI 120, EI 90 or EI 60

## Standards

This product complies with the following standards:

- CE certified according to product standard EN 12101-8
- Fire classification according to EN 13501-4 standard:
  - **Horizontal duct**
    - EI 120 (v<sub>ed</sub>- i↔o) S 1000C<sub>10000</sub> AAmulti
    - EI 120 (v<sub>ed</sub>- i↔o) S 1000C<sub>10000</sub> MAmulti
  - **Vertical duct**
    - EI 120 (h<sub>od</sub>- i↔o) S 1000C<sub>10000</sub> AAmulti
    - EI 120 (h<sub>od</sub>- i↔o) S 1000C<sub>10000</sub> MAmulti
  - **Walls**
    - EI 120 (v<sub>ew</sub>- i↔o) S 1000C<sub>10000</sub> AAmulti
    - EI 90 (v<sub>ew</sub>- i↔o) S 1500C<sub>10000</sub> AAmulti
  - **Floor/ceiling**
    - EI 120 (h<sub>ow</sub>- i↔o) S 1000C<sub>10000</sub> AAmulti
    - EI 90 (h<sub>ow</sub>- i↔o) S 1500C<sub>10000</sub> AAmulti
- Fire testing according to EN 1366-10
- CE certificate of constancy of performance, No P-1391-CPR-2018/0206
- Declaration of Performance, No: 10037-SMR-2019/01/01
- Smoke control damper casing tightness class C according to EN 1751
- Leakage through closed damper blade fulfils class 2 according to EN 1751

## Dimensions and weight



W = Width (mm)	H = Height (mm)
200, 250, 300, 350, 400, 450, 500, 550, 600, 700, 800, +100, ... 1600	200, 250, 300, 350, 400, 450, 500, 550, 600, 700, 800, 900, 1000

## Weight (kg)

With flanges

H	W											
	200	250	300	350	400	450	500	550	600	700	800	900
200	44.1	47.5	49.0	51.7	55.5	58.8	58.7	62.8	65.9	68.0	76.4	81.1
250	47.5	51.2	52.7	55.6	59.5	62.9	62.7	67.0	70.4	72.5	81.5	86.4
300	51.0	54.8	56.3	59.4	63.4	67.1	66.9	71.4	74.9	77.2	86.5	91.7
350	54.8	58.7	60.3	63.5	68.0	71.8	71.5	76.3	79.9	82.2	92.1	97.6
400	58.1	62.1	63.7	66.9	71.5	75.5	75.2	80.1	83.9	86.4	96.6	102.2
450	61.4	65.7	67.3	70.8	75.5	79.7	79.2	84.5	88.4	90.9	101.6	107.5
500	64.9	69.4	71.1	74.6	79.6	83.9	83.4	88.9	92.9	95.5	106.8	112.8
550	68.4	73.0	74.8	78.5	86.6	88.0	87.5	93.3	97.5	100.1	111.8	118.1
600	72.0	76.7	78.4	82.2	87.6	92.3	91.6	97.5	102.0	104.7	116.8	123.4
700	–	–	–	–	–	–	–	–	111.0	113.8	126.9	135.1
800	–	–	–	–	–	–	–	–	120.0	124.1	138.2	145.7
900	–	–	–	–	–	–	–	–	130.4	133.2	148.4	156.2
1000	–	–	–	–	–	–	–	–	139.4	142.4	158.5	166.8

H	W						
	1000	1100	1200	1300	1400	1500	1600
200	85.7	–	–	–	–	–	–
250	91.2	–	–	–	–	–	–
300	96.8	–	–	–	–	–	–
350	102.8	–	–	–	–	–	–
400	107.7	–	–	–	–	–	–
450	113.2	–	–	–	–	–	–
500	118.7	–	–	–	–	–	–
550	124.1	–	–	–	–	–	–
600	129.7	–	–	–	–	–	–
700	141.8	147.0	164.3	168.7	173.2	181.9	190.7
800	152.8	158.4	176.8	181.5	186.3	195.6	205.0
900	163.9	169.6	189.4	198.2	207.2	217.2	227.1
1000	174.9	180.9	204.6	212.4	220.3	230.9	241.4

– = Size not available as standard. Please contact Halton Sales.

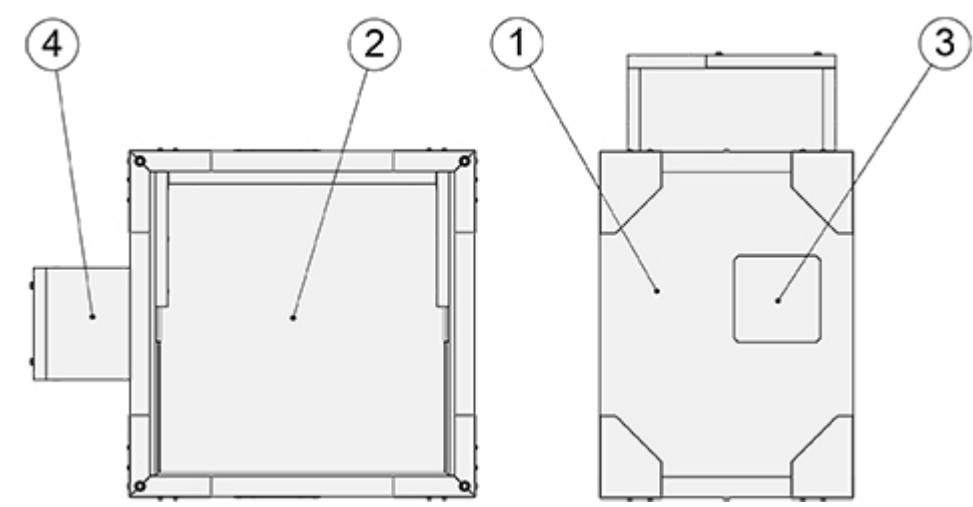
**Without flanges**

H	W											
	200	250	300	350	400	450	500	550	600	700	800	900
200	40.9	43.9	45.2	47.7	51.2	54.2	55.0	57.9	60.2	66.4	70.4	74.8
250	44.0	47.3	48.8	51.3	55.0	58.1	58.9	61.9	65.0	71.0	75.2	79.8
300	47.3	50.6	52.1	54.9	58.8	62.0	62.9	66.0	69.3	75.6	79.9	84.7
350	50.8	54.4	55.9	58.8	62.9	66.3	67.1	70.5	73.9	80.6	85.3	90.2
400	53.6	57.4	58.9	62.0	66.2	69.9	70.8	74.3	77.8	84.8	89.5	94.8
450	56.8	60.8	62.4	65.5	69.9	73.8	74.6	78.3	82.0	89.4	94.3	99.8
500	60.1	64.1	65.8	69.1	73.7	77.7	78.6	82.4	86.3	93.9	99.2	104.9
550	63.2	67.5	69.2	72.6	77.5	81.6	82.5	86.5	90.5	98.5	103.9	109.9
600	66.4	70.9	72.5	76.2	81.3	85.5	94.4	90.6	94.8	103.1	108.7	115.0
700	–	–	–	–	–	–	–	–	103.3	112.3	118.3	126.2
800	–	–	–	–	–	–	–	–	111.8	122.8	129.2	136.3
900	–	–	–	–	–	–	–	–	121.6	131.9	138.7	146.3
1000	–	–	–	–	–	–	–	–	130.1	141.0	148.4	156.4

H	W						
	1000	1100	1200	1300	1400	1500	1600
200	80.2	–	–	–	–	–	–
250	85.6	–	–	–	–	–	–
300	90.8	–	–	–	–	–	–
350	96.7	–	–	–	–	–	–
400	101.5	–	–	–	–	–	–
450	106.9	–	–	–	–	–	–
500	112.2	–	–	–	–	–	–
550	117.6	–	–	–	–	–	–
600	122.9	–	–	–	–	–	–
700	134.8	143.4	156.4	159.3	162.2	170.4	178.7
800	145.4	154.7	168.6	171.7	174.8	183.7	192.5
900	156.1	166.1	180.8	187,2	195.3	204.7	214.1
1000	166.8	177.4	192.9	200,4	207.9	217.9	228.0

– = Size not available as standard. Please contact Halton sales.

# Material



Number	Part	Material	Note
1	Casing	Asbestos free boards made of mineral fibre	–
2	Blade	Asbestos free boards made of mineral fibre	–
3	Inspection hatch covering	Asbestos free boards made of mineral fibre	–
4	Operating model (actuator)	–	Actuator cover, asbestos free boards (mineral fibre)

## Operating model

### Electric actuator

The Halton Sec Mighty Rectangular smoke control damper is equipped with an electric actuator, 24 V or 230 V (no spring return or fuse aloud). The actuator is equipped with built-in limit switches for indicating both open and closed positions.

The smoke control damper must be connected to a common fire alarm or building automation system. It can be used in fully automatic **(AA)** or manual activation **(MA)** systems.

In case of manually activated system (MA), the non-flammable cables in must be connect to electrical actuator inside the heat insulated cover box.

Order code	Operating model	Damper sizes (WxH, mm)	Operating voltage	Limit switch
R1	BLE 24 15 Nm	200×200 – 1000×400	AC/DC 24 V	✓
R2	BLE 230 15 Nm	200×200 – 1000×400	AC 230 V	✓
R3	BE 24 40 Nm	600×800 – 1600×800	AC/DC 24 V	✓
R4	BE 230 40 Nm	600×800 – 1600×800	AC 230 V	✓
I1	Schischek InMax 50.75-s 72 Nm	1300×1000 – 1600×1000	24 V / 230 V	✓

## Function

The Halton Sec Mighty Rectangular multi compartment smoke control damper is CE certified for vertical ( $v_e$ ) and horizontal ( $h_o$ ) installation in concrete, masonry or lightweight structures and also vertical ( $v_e$ ) and horizontal ( $h_o$ ) smoke extract duct orientations. It fulfils all fire resistance classes up to **EI 120 S** requirements.

Smoke control dampers allow smoke to be extracted from the multi compartment smoke zone by dedicated smoke extraction systems. In case of fire sequence of operation is important, smoke extract fans should not be started before the smoke control dampers are opened.

The blade of the smoke control damper can be opened during and after fire.

The smoke control damper must be connected to a common fire alarm or building automation system. It can be used in manually (MA) or automatically (AA) activated systems.

In case of manually activated system (MA), the non-flammable cables in must be connect to electrical actuator inside the heat insulated cover box.

The smoke control damper is equipped with an electric actuator 24 V or 230 V (no spring return or fuse aloud). The actuator is equipped with built-in limit switches for both open and closed position.

## Installation

Please see/download Installation Guide for this smoke control damper from section Downloads.

# Servicing

No regular maintenance is required for the product.

In any case to ensure proper operation of smoke control dampers, an inspection must be carried out regularly according to local building codes. The minimum recommended inspection period is **every 6 months**. Documentation of testing must be saved for future needs.

The smoke control damper must be connected to a common fire alarm or building automation system.

The smoke control damper is equipped with two inspection hatches, enabling the possibility to check the position of the damper blade.

Upon failure during testing of the fire damper, maintenance service shall be ordered from an authorised Halton representative to ensure appropriate operation of the product.

# Specification

The multi compartment smoke control damper is CE certified and marked according to the standard EN 12101-8 and fire tested according to the EN 1366-10 standard.

Smoke control damper of maximum fire resistance class requirements:

- Horizontal duct
  - EI 120 ( $v_{ed} \leftrightarrow o$ ) S 1000C<sub>10000</sub> AAmulti
  - EI 120 ( $v_{ed} \leftrightarrow o$ ) S 1000C<sub>10000</sub> MAmulti
- Vertical duct
  - EI 120 ( $h_{od} \leftrightarrow o$ ) S 1000C<sub>10000</sub> AAmulti
  - EI 120 ( $h_{od} \leftrightarrow o$ ) S 1000C<sub>10000</sub> MAmulti
- Walls
  - EI 120 ( $v_{ew} \leftrightarrow o$ ) S 1000C<sub>10000</sub> AAmulti
  - EI 90 ( $v_{ew} \leftrightarrow o$ ) S 1500C<sub>10000</sub> AAmulti
- Floor/ceiling
  - EI 120 ( $h_{ow} \leftrightarrow o$ ) S 1000C<sub>10000</sub> AAmulti
  - EI 90 ( $h_{ow} \leftrightarrow o$ ) S 1500C<sub>10000</sub> AAmulti

The smoke control damper casing complies with the tightness requirements for EN 1751 class C. Leakage through closed damper blade fulfils class 2 according to EN 1751.

The casing and blade of the smoke control damper is made of fire resistant asbestos free boards (mineral fibre).

The smoke control damper can be installed in either horizontal or vertical position to smoke extract duct, wall or floor/ceiling.

The actuator is equipped with built-in limit switches for both open and closed position.



The smoke control damper is equipped with two inspection hatches, enabling the possibility to check the position of the damper blade.

## Order code

### SMR/W-H; MA-OP-FL-ZT

**W = Width of duct connection (mm)**

200, 250, 300, 350, 400, 450, 500, 550, 600, +100, ..., 1600

**H = Height of duct connection (mm)**

200, 250, 300, 350, 400, 450, 500, 550, 600, 700, 800, 900, 1000

## Other options and accessories

**MA = Material**

MF Asbestos free boards, mineral fibre

**OP = Operating models**

R1 BLE24 HL, 24 V, 15 Nm

R2 BLE230 HL, 230 V, 15 Nm

R3 BE24 HL, 24 V, 40 Nm

R4 BE230 HL, 230 V, 40 Nm

I1 Inmax 50.75-S, 75 Nm

**FL = Flanges**

Y Yes

N No

**ZT = Tailored product**

N No

Y Yes (ETO)

## Code example

SMR-300-300, MA=MF, OP=R2, FL=Y, ZT=N