



WDBE

**Fire-resistant wall/door diffuser
Transfer
Tested in accordance with EN1634-1,
EN1364-1, EN1364-2**

Available types

WDBE-O

- W** wall/door diffuser
- D** transfer
- B** fire-resistant
- E** rectangular, aesthetic, thickness 55 mm, 60 minutes fire resistance

- Edging

- O** none
- K** fixed flange
- L** fixed flange, separate counter flange for 50 mm door application*
- O** not applicable

*For doors > 50 mm and ≤ 60 mm you need the WDBEOO (diffuser only) to order + 2 x WDBOOO (separate flange).

SA-Select

Check SA-Select to create extended order codes and selection details online. **NB!** At this moment, SA-Select is only available in Dutch. But it is possible to create extended order codes and selection details online.

Use

The fire-resistant element type WDBE is suitable for use in fire-retardant wall or door constructions. The gap between the recess and the element should be filled with mastic BCM. The element consists of thermal foam material, enclosed by plastic profiles. In temperatures above 100 °C it expands strongly in volume and consequently closes the opening. For certified application in the wall, the diffusers must be mounted horizontally with the blades. As the foam material is hygroscopic, the element should be stored and used in dry conditions only. For the classification, please see the table on the next page. For certified application, the assembly must be carried out in accordance with the supplied assembly instructions of the diffuser and the corresponding classification report in door and floor/wall.

Characteristics

Free passage: approx. 56 to 69 %

Fitting

In accordance with supplied instructions.

Finish

Fire-resistant element

Plastic profiles filled with heat-sensitive foam material.

Post-treatment: none

Colour: RAL 9022 (light aluminium)

Optional

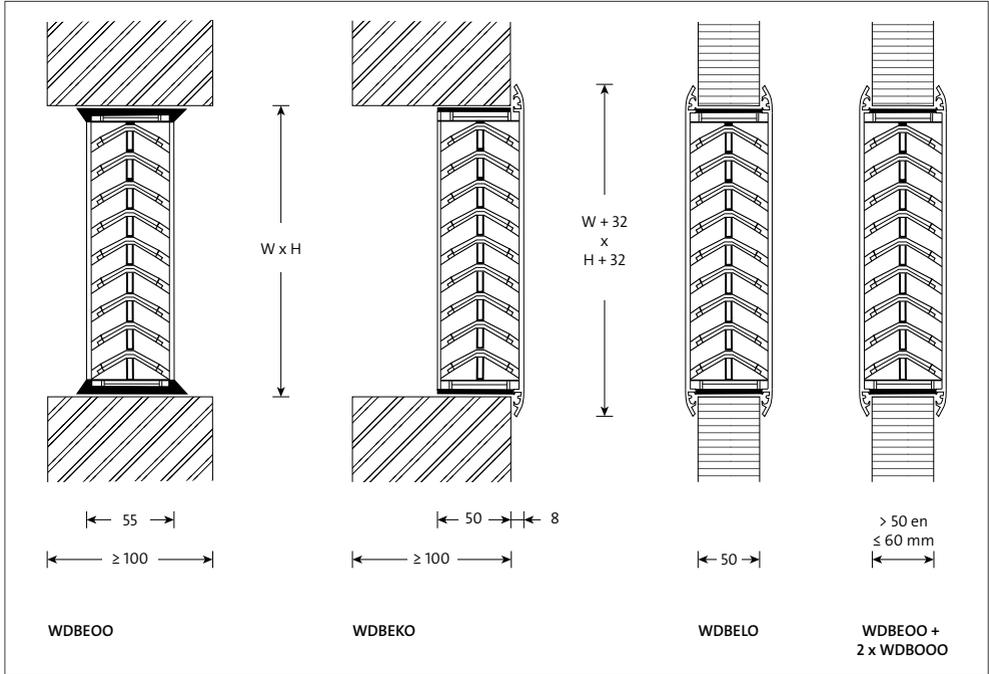
Colour: RAL 7024 (anthracite grey)

RAL 9016 (glossy white)

Counter flange: WDBOOO (supplied individually)

Mastic BCM: tube 310 ml

Dimensions



Available dimensions

Minimum $W \times H$ 100 x 100 mm to maximum 800 x 400 mm in increments of 50 mm. For use in a door, the upward range is limited to 600 x 400 mm. Sizes in between in steps of 1 mm in width and 10 mm in height are available at additional cost.

Comment

- The listed dimensions are in mm.
- $W \times H$ is the recess size.
- The actual width is $W - 5$ mm.
- The actual height is $H - 5$ mm.

Classified in accordance with EN 13501-2

Description	Separation construction	Material separation construction	Thickness	Seal	Installation	Classification	Classification report
WDBE00 100x100 mm up to and including 800x400 mm	Wall	Aerated concrete 550 kg/m ³	≥ 100 mm	Mastic BCM	Blades horizontal	EI60 (ve i↔o) and EW90 (ve i↔o)	WDBE Classification in wall and floor_14040_EN
	Flexible wall	Metal stud drywall Type A (EN520)	≥ 100 mm	Mastic BCM	Blades horizontal	EI60 (ve i↔o) and EW60 (ve i↔o)	
	Floor	Aerated concrete 650 kg/m ³	≥ 100 mm	Not applicable	Blades horizontal	EI60 (ho i↔o) and EW60 (ho i↔o)	
WDBE00 100x100 mm up to and including 600x400 mm	Door	Wooden fiber door panel 450 kg/m ³ with HDF fiberboard 3.2 mm 950 kg/m ³ on both sides.	≥ 50 mm	Mastic BCM	Blades horizontal	EI60 (ve i↔o) and EW60 (ve i↔o)	WDBE Classification in door_14086_EN

These classifications are achieved if the diffuser is incorporated in accordance with the prescribed method. We refer to the supplied fitting instructions for the diffuser and accompanying classification report in [door](#) and [floor/wall](#).

Selection details

Free passage in cm²

H	W														
	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800
100	49	79	107	136	164	192	221	249	277	306	334	362	391	419	447
150	77	125	170	216	261	306	351	397	442	487	533	578	623	669	714
200	97	160	218	276	334	393	451	509	567	626	684	742	800	859	917
250	126	206	281	356	432	507	582	657	732	808	883	958	1033	1108	1184
300	146	241	329	417	505	593	681	770	858	946	1034	1122	1210	1298	1386
350	174	287	392	497	602	707	812	917	1023	1128	1233	1338	1443	1548	1653
400	194	322	440	558	676	794	912	1030	1148	1266	1384	1502	1620	1738	1856

Air volume in m³/h with 10 Pa pressure loss

H	W														
	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800
100	20	31	42	54	65	77	88	100	111	123	135	146	158	170	182
150	39	61	84	107	131	154	178	202	226	250	274	299	324	349	374
200	51	82	112	144	175	207	239	272	304	338	371	405	439	474	508
250	70	112	155	199	243	288	333	379	426	473	521	570	619	669	720
300	83	133	184	236	289	343	398	453	510	567	625	684	744	805	867
350	102	164	228	293	360	427	496	567	639	712	786	862	939	1017	1097
400	115	185	258	332	407	485	564	645	727	811	897	984	1074	1165	1257

Important information:

Fire-resistant products based on thermal foam material can be used in pressureless overflow systems, pressure loss max. 10 Pa. Fire dampers should be used in dividing constructions that have air ducts. Fire dampers are tested under higher pressure in accordance with EN 1366-2.

General

- Static pressure loss Ps in Pa.
- It is permitted to interpolate the interim values.