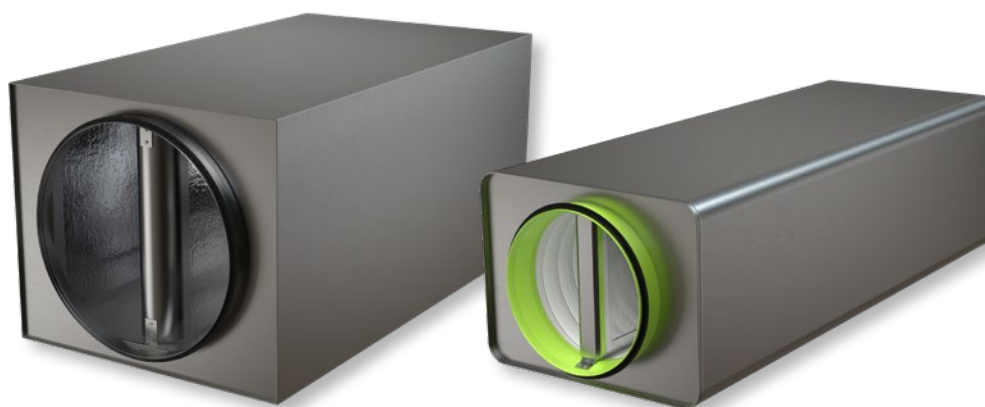


CLA-B

Compact sound attenuator with centre baffle for circular ducts



QUICK FACTS

- Extremely low installation height.
- Very good sound attenuation
- Fibre-migration proof
- Type-approved (dim. 250 to 400)
- Built for low CO2 footprint (dim. 250 to 400)
- Dim. 250 to 400 with air tightness class D
- Dim. 500 to 800 with air tightness class C
- Low pressure drop
- Fire-resistance class EI30 to EI120*

*See table for requisite safety distance



Technical description

General

CLA-B is a compact sound attenuator with circular connection spigots and centre baffle.

Unique properties regarding installation height, fire-resistance class, fibre-migration proof design and sound attenuation.

Patented in terms of the self-supporting fibre-migration proof surface.

Version

CLA-B is an industrially fabricated product that is designed for excellent sound attenuation, a low installation height and installation-friendliness.

Dimensions 250-400 satisfy air tightness class D

Dimensions 500-800 satisfy air tightness class C

CLA-B up to size 400 is type-approved in fire-resistance class E120.

The product corresponds to fire-resistance class EI30/EI60/EI120 provided that the safety distance is realised. Specified safety distance in table 1 refers to evacuating persons or 2.5 kW/m².

Material and surface layer

Dimensions 250-400

- Made from recycled galvanised steel sheet for environmental class C3 (equivalent to M2 for AMA VVS2016).
- Sound attenuating materials: Mineral wool covered with special polyester fabric
- The connection spigots are fitted with rubber seal rings.

Dimensions 500-800

- Made as standard of galvanised sheet steel corresponding to environmental class C3 (equivalent to M2 as per AMA VVS2016).
- Sound attenuating materials: ISOVER Cleantec® PLUS, which is a type-approved insulation material consisting of long-fibred compressed mineral wool. The mineral wool is covered with a micro-perforated aluminium foil. ISOVER Cleantec® PLUS is type-approved for cleaning using liquids with a plastic brush or even a high-pressure cleaning apparatus. The insulation material also conforms to relevant standards regarding cleaning, fibre entrainment, resistance to ageing and emissions, etc., according to type-approval number 2706/92.
- The connection spigots are fitted with rubber seal rings.

Sustainable sheet metal with reduced CO2

CLA-B (Dim. 250-400) is part of Swegon's RE:3 concept based on the key principles of circularity, and which consists of RE:duce, RE:use and RE:vitalise.

CLA-B (Dim. 250-400) is made with sustainable sheet metal called RRP, where RRP stands for "recycled and renewably produced". The steel has a recycled steel content of at least 75 per cent. In addition, the manufacturing process uses electric arc furnaces that run on 100 per cent renewable energy.

Installation and maintenance

See separate installation instructions

Environment

The relevant building product declaration is available from our website.

Sizing

Sound attenuation

Sound attenuation is specified to ISO 7235, i.e. static integral attenuation for duct products.

Table 1.

Size	Length (mm)	Ød (mm)	H (mm)	Static integral attenuation, dB to ISO 7235								Weight (kg)	Safety distance (mm) *		
				63	125	250	500	1 K	2 K	4 K	8 K		EI30	EI60	EI120
250*	500	249	302	5	6	8	14	24	32	20	9	8.4	50	50	70
	1000	249	302	7	12	17	30	43	40	34	16	15.4	50	50	110
315*	500	314	367	4	6	8	14	25	19	14	8	10.7	50	50	70
	1000	314	367	6	10	14	26	45	42	21	12	19.9	50	50	120
400*	500	399	458	4	6	8	14	22	16	10	6	14.4	50	50	70
	1000	399	458	5	9	14	23	40	24	13	9	26.5	50	50	120
500	600	499	580	4	5	15	23	29	20	15	14	24.0	-	-	-
	900	499	580	4	6	15	23	29	20	15	14	32.5	-	-	-
	1200	499	580	5	7	16	24	30	22	16	14	41.0	-	-	-
630	600	629	710	3	4	12	19	22	17	12	9	30.5	-	-	-
	900	629	710	3	5	12	19	22	17	12	9	40.3	-	-	-
	1200	629	710	4	6	13	20	23	18	12	10	50.0	-	-	-
800	600	799	880	2	2	10	12	11	7	6	2	39.5	-	-	-
	900	799	880	2	3	10	12	11	7	6	2	51.8	-	-	-
	1200	799	880	3	4	11	13	11	8	7	3	64.0	-	-	-

* = Specified safety distance for evacuating persons is based on a critical radiation level of 2.5 kW/m^2

Safety distance to combustible material based on a critical radiation level of 10 kW/m^2 is 50 mm for all fire-resistance classes

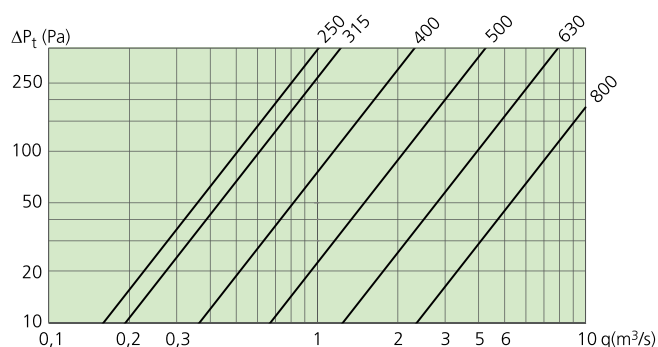
Pressure drop

The net area is less than the connection diameter for improved sound attenuation data (especially in the low frequencies).

The pressure drop that CLA-B duct-to-duct installation generates is specified in Diagram 1.

The specified data is based on a uniform air stream in and out of the product. Any dampers, duct bends or other products in the ducting near the sound attenuator will increase its pressure drop and level of flow-generated sound, which may affect its sound attenuating properties.

Diagram 1. Pressure drop – Air flow, CLA-B



Software

You can find the sizing software easily on www.swegon.se

Swegon plugin for MagiCAD for AutoCAD and Revit means that you can choose a duct section from the drawings and automatically search for suitable sound attenuator options for the duct based on the duct form, dimensions, air flow and MagiCAD sound data.

Dimensions

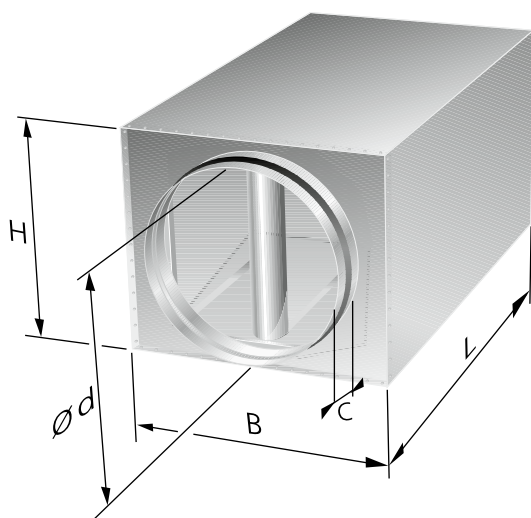


Figure 3. CLA-B – Dimension print

Size	B	C	Ød	H	L		
	mm	mm	mm	mm	mm	mm	mm
250	394	45	249	302	500	-	1000
315	462	45	314	367	500	-	1000
400	553	70	399	458	500	-	1000
500	680	60	499	580	600	900	1200
630	810	60	629	710	600	900	1200
800	980	60	799	880	600	900	1200

Specification

Product

Rectangular sound attenuator with centre baffle for circular connection

CLA-B	aaa-	bbbb
Connection dimensions:		
250, 315, 400, 500, 630, 800		
Length:		
Connection dimensions: 250, 315, 400:		
500, 1000		
Connection dimensions 500, 630, 800:		
600, 900, 1200		

Specification text

Example of a specification text as per VVS AMA 12.

QKB.1 Straight sound attenuator with circular connection spigots

Example 1

Swegon type CLA-B compact sound attenuators for connection to circular ducts, dim. 250 to 400 with the following functions:

- Equipped with centre sound baffle
- Type-approved
- Made with RRP galvanised steel sheet corresponding to environmental class C3 (equivalent to M2 according to AMA VVS2016) with a low CO₂ footprint.
- 100 mm mineral wool
- Fire-resistance class EI30 to EI120 on condition that the safety distance is complied with.
- Mineral wool covered with special polyester fabric.
- Self-supporting surface layer
- Protection for fibre-migration and cleanable
- Air tightness class D

Example 2

Swegon type CLA-B compact sound attenuators for connection to circular ducts, dim. 500 to 800 with the following functions:

- Equipped with centre sound baffle
- Fire-resistance class EI30 to EI120 on condition that the safety distance is complied with.
- ISOVER Cleantec® PLUS, wet-cleanable
- Self-supporting surface layer
- Protection for fibre-migration and cleanable
- Air tightness class C

Designation:	CLA-B 250-500	xx pcs
	CLA-B 630-1200	xx pcs