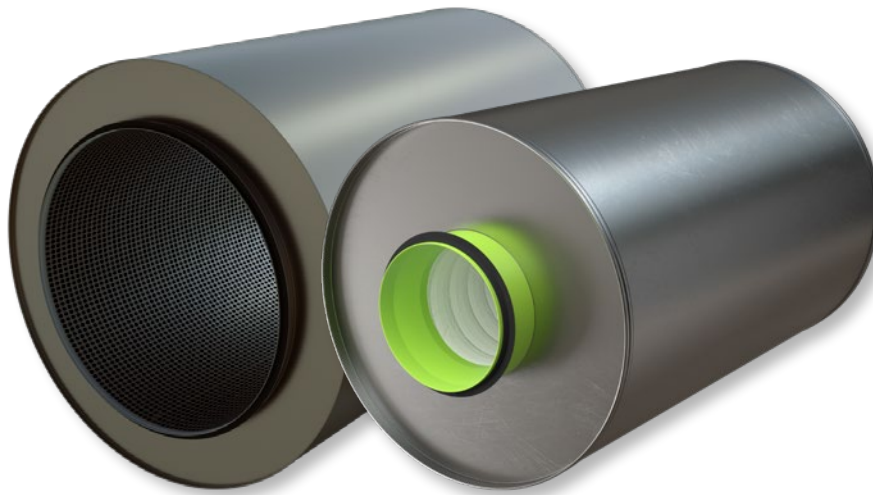


SORDO-C

Sound attenuator for circular ducts



QUICK FACTS

- 100 mm mineral wool
- Excellent sound attenuation
- Low pressure drop
- Built for low CO2 footprint
- Ø 100–400 with air tightness class D
- Ø 500–800 with air tightness class C
- Fire-resistance corresponding to class EI30 to EI120*
 - * See the table for requisite safety distance



Technical description

General features

SORDO-C is a circular sound attenuator for circular connection spigots with 100 mm insulation.

Version

SORDO-C is an industrially fabricated product designed for excellent sound attenuation and ease of installation.

Dimensions 100 to 400 satisfy air tightness class D.

Dimensions 500 to 800 satisfy air tightness class C.

SORDO-C is insulated corresponding to fire-resistance classes EI30/E120, EI60/E120 and EI120/E120 on condition that the safety distance is complied with.

In buildings in which the safe distance from a combustible material and/or persons in an evacuation route is not complied with, the SORDO-C then has a fire-resistance class corresponding to EI60/E120.

Material and surface layer

SORDO-C dim. 100 to 400

- Made of RRP galvanised sheet steel corresponding to environmental class C3 (equivalent to M2 as per AMA VVS2016). This produces a significantly reduced CO2 footprint.
- Sound attenuating materials: 100 mm thick mineral wool. Fibre migration-secured thanks to our solution with self-supporting surface layer, approved with regard to cleaning, fibre migration, ageing resistance, emissions, etc.
- The connection spigots are fitted with rubber seals

SORDO-C dim. 500 to 800

- Made of galvanised sheet steel to environmental class C3 (equivalent to M2 as per VVS-AMA 98).
- Sound attenuating materials: 100 mm thick long-fibred compressed mineral wool lined with EUROLON. The sound attenuating material is also covered with perforated sheet steel outside the EUROLON layer
- The connection spigots are fitted with rubber seals.



Figure 1. SORDO-C

Environmentally friendly alternative RE:3

SORDO-C dim. 100 to 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. The product 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)	Ø d (mm)	Ø D (mm)	Static integral attenuation, dB to ISO 7235								Weight (kg)	Safety distance in mm	
				63	125	250	500	1 K	2 K	4 K	8 K		EI60	EI120
100	500	99	284	7	10	15	28	41	48	37	25	6.1	-	50
	800	99	284	8	13	22	36	49	50	47	28	9	-	50
	1100	99	284	9	15	29	44	50	50	50	39	12	-	50
125	500	124	305	5	9	13	25	34	40	34	18	6.7	-	50
	800	124	305	6	12	19	34	44	50	40	26	10	-	50
	1100	124	305	7	15	24	43	50	50	46	34	13.3	-	50
160	500	159	334	5	8	13	21	29	35	19	15	7.7	-	50
	800	159	334	6	11	18	29	39	45	30	21	11.3	-	50
	1100	159	334	7	14	23	37	50	50	41	26	15	-	50
200	500	199	367	5	6	11	17	22	25	15	13	8.7	-	50
	800	199	367	5	8	14	24	34	38	22	18	12.9	-	50
	1100	199	367	6	10	18	31	46	51	29	20	17.1	-	50
250	500	249	424	4	5	8	14	20	18	10	7	10.5	-	50
	800	249	424	4	7	11	19	27	27	14	10	15.5	-	50
	1100	249	424	5	9	14	24	35	37	19	12	20.6	-	50
315	500	314	482	3	6	7	11	14	10	8	3	12.3	-	50
	800	314	482	3	7	10	16	21	17	10	5	18.2	-	50
	1100	314	482	4	8	12	21	29	24	12	7	24.1	-	50
400	500	399	558	3	6	6	11	14	10	7	4	15.2	-	50
	800	399	558	3	6	8	15	19	13	8	4	22.2	-	50
	1100	399	558	4	7	10	19	24	16	9	4	29.3	-	50
500	900	499	700	1	2	6	9	11	7	4	4	44.5	-	200
	1200	499	700	1	4	9	12	13	11	6	5	53.5	-	200
630	900	629	830	1	1	2	6	6	3	2	2	50.7	-	200
	1200	629	830	1	1	2	7	8	7	4	3	68.3	-	200
800	900	799	1000	1	1	1	4	4	2	2	2	62.0	-	200
	1200	799	1000	1	1	1	5	6	5	3	3	84.8	-	200

Pressure drop

The pressure drop that SORDO duct-to-duct installation generates is specified in Diagrams 1-2.

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, and will affect its sound attenuating properties.

Software

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

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.

Diagram 1. Air flow - pressure drop SORDO-C 100-400

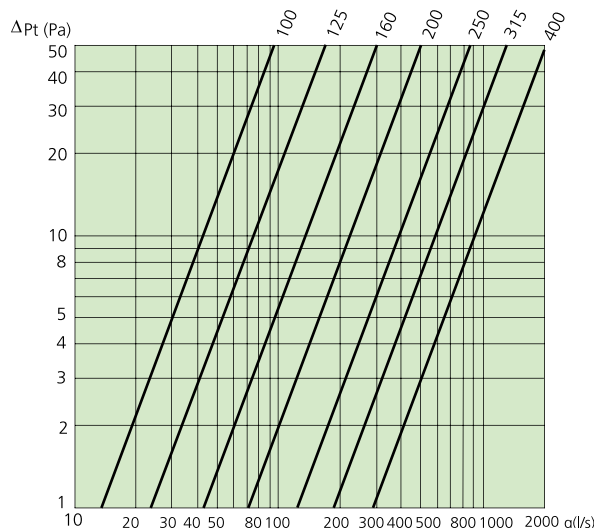
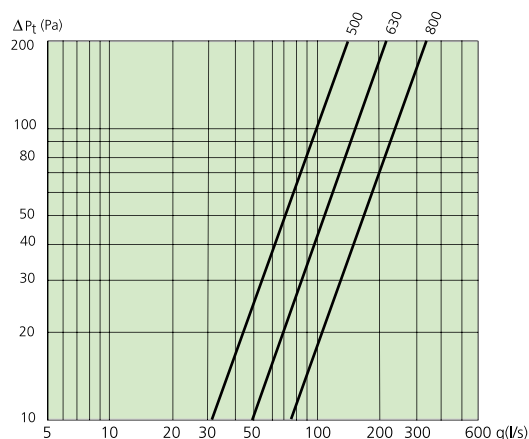


Diagram 2. Air flow - pressure drop SORDO-C 500-800



Dimensions

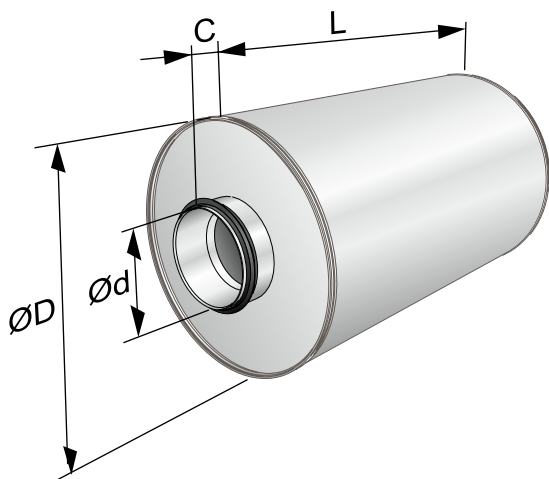


Figure 2. Dimension sketch

Table for dimension sketch

Size mm	Ø d mm	Ø D mm	C mm	Length mm		
100	99	284	45	500	800	1100
125	124	305	45	500	800	1100
160	159	334	45	500	800	1100
200	199	367	45	500	800	1100
250	249	424	45	500	800	1100
315	314	482	45	500	800	1100
400	399	558	60	500	800	1100
500	499	700	60	-	900	1200
630	629	830	60	-	900	1200
800	799	1000	60	-	900	1200

Specification

Product

Circular sound attenuators

SORDO-C	aaa-	bbbb
Connection dimensions:		
100, 125, 160, 200, 250, 315, 400, 500, 630, 800		
Length:		
(Dim. 100-400)		
500, 800, 1100		
(Dim. 500-800)		
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 SORDO-C round sound attenuators for connection to circular ducts, dim. 100 to 400 with the following functions:

- 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
- Excellent sound attenuation
- Self-supporting surface layer
- Fire-resistance class EI30 to EI60 without safety distance
- Fire-resistance class EI120 with 50 mm safety distance
- Air tightness class D

Example 2

Swegon type SORDO-C round sound attenuators for connection to circular ducts, dim. 500 to 800 with the following functions:

- 100 mm mineral wool
- Excellent sound attenuation
- Self-supporting surface layer
- Fire-resistance class EI30 to EI60 without safety distance
- Fire-resistance class EI120 with 200 mm safety distance
- Air tightness class C

Designation:	SORDO-C 100-500	xx pcs
	SORDO-C 500-900	xx pcs