



**Berechnung einer Klappe mit  
Schalldämpfer in der akustischen  
Designanalyse**



Welcome Test user

Products



Select and configure noise control product without conducting a duct analysis.

Analysis



Analyze a duct system for noise levels in occupied spaces.

Projects

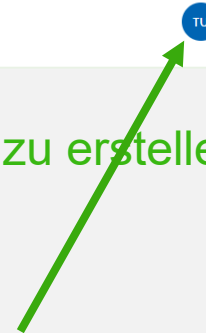


Create or open a project in your account for duct analysis or product selection.

Klicken Sie auf Analyse, um ein neues Projekt zu erstellen



Benutzereinstellungen wie die Sprache



Recent Projects

Project Name	Type	Revision	Created	Last Edited ▾
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Need help?



Contact your local Swegon representative for assistance.  
<https://www.swegon.com/contact/>

Select project...

### Projects

Search  lastEdited Anytime showRevisions No ownedBy Me

Klicken Sie auf  
"Neues Projekt"



New Project

Select project...

### Projects

Search  lastEdited Anytime

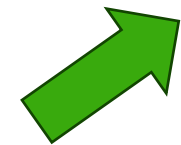
Project Name	Owner	Editor	
Silencers 123	Test user	Test user	...
AHU project 123 Outdoor	Test user	Test user	...
AHU project 123	Test user	Test user	...

### New Project

Project Name

Other

Cancel Create



Geben Sie ihm einen Namen  
und klicken Sie auf "Erstellen"

New Project

Cancel

**Analysis**

Views

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[Rectangular Breakout In-Line](#)

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Library Element Quick Add



Straight Duct



Flexible Duct



Elbow



Branching



End Reflection



Noise Control



Duct Breakin/Breakout



Sound Transmission



**Damper Silencer**

Path (1)							
Frequency	A	63	125	250	500	1k	2k 4k 8k
Calculation Path	7	-	-	-	-	-	-
Receiver: default (dBA)	7	-	-	-	-	-	-

[Add Path](#)



Ziehen Sie das Diffusor-/Klappensymbol per Drag & Drop in den gestrichelten Bereich

Schreiben Sie einen Projekt-Tag, wählen Sie das Produkt aus und klicken Sie dann auf Speichern

## Diffusers/Dampers

Project Tag

Damper 1

Category

Dampers

All  
Air diffusers (supply air)  
Air diffusers (extract air)  
Air diffusers (transfer air)  
Water devices

Dampers

Product line

Select product...

Select product...

REACT Vg

WISE Damper a

Previous

Next

Cancel

Save



Geben Sie die Daten ein und klicken Sie auf Speichern

## Diffusers/Dampers

Project Tag

Damper 1

Category

Dampers

Product line

REACT Va

Air

Airflow

200

Duct pressure before damper

100

Pressure drop after damper

60

Product Configuration

Circular/Rectangular

Circular

Width

200 mm

Height

200 mm

Duct connection

250 mm



Total pressure drop

0.0

Sound table	63	125	250	500	1k	2k	4k	8k	Lw(A)
Sound power	49	46	43	38	35	31	23	17	41
Sound attenuation	0	0	0	0	0	0	0	0	-



Previous

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Library Element Quick Add



Straight Duct



Flexible Duct



Elbow



Branching



End Reflection



**Damper Silencer**

Path (1)									
Frequency	A	63	125	250	500	1k	2k	4k	8k
Calculation Path	41	49	46	43	38	35	31	23	17
Receiver: default (dBA)	41	-	-	-	-	-	-	-	-
Damper 1	41	0	0	0	0	0	0	0	0
REACT Va		49	46	43	38	35	31	23	17

[Add Path](#)

Klicken Sie auf Empfänger, um einen Empfänger hinzuzufügen

Füllen Sie alle erforderlichen Felder aus, diesmal nur Empfängerkriterien eintragen, und klicken Sie auf Speichern

Swegon

Analysis

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Swegon

Calculation

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Library Elem

Straight Duc

Flexible Duc

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End Reflecti

## Receivers

**Name**

Receiver

**Receiver Properties**

**Name**

Receiver

**Receiver Type**

Indoor

**Length (m)**                      **Width (m)**                      **Height (m)**

3

3

3

**Notes**

**Room Absorption**

**Absorption Coefficients**

Other

63	125	250	500	1000	2000	4000	8000
0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15

**Receiver Criteria**

Metric	Value
A	35 dB(A) (35)

Close

Delete

Duplicate

New

Reset

Save



Calculation Modules

- Rectangular Breakout In-Line
- Circular Breakout In-Line

Library Element Quick Add



Straight Duct



Flexible Duct



Elbow



Branching



End Reflection



Noise Control



Duct Breakin/Breakout



Sound Transmission



Room Effect



Outdoor Noise



**Damper Silencer**

Path (1)

Frequency	A	63	125	250	500	1k	2k	4k	8k
Calculation Path	41	49	46	43	38	35	31	23	17
Receiver: default (dBA)	41	-	-	-	-	-	-	-	-

Move to head of path

	41	0	0	0	0	0	0	0	0
Damper 1	41	0	0	0	0	0	0	0	0
REACT Va	49	46	43	38	35	31	23	17	

Branch →

[Add Path](#)

Ziehen Sie das Symbol "Einfacher Empfänger" per Drag & Drop in den gestrichelten Bereich

Wählen Sie Ihren Empfänger aus und klicken Sie auf Speichern

Swegon Home Products Analysis Reporting

Analysis

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Calculation Modules

- Rectangular Breakout In-Line
- Circular Breakout In-Line

Library Element Quick Add

Straight Duct

Flexible Duct

Elbow

Branching

End Reflection

**Damper Silencer**

Path (1)

- Frequency
- Total
- Required Insertion Loss
- Receiver: Receiver (30)

Damper 1

WISE Damper a (SA)

Simple Receiver Assignment

Receiver

### Simple Receiver Assignment

Edit properties

Receiver name

Receiver

Add Attachment

Details

Simple receiver assignment

Previous Next Cancel Save

Swegon Home Products **Analysis** Reporting Users

**Analysis**

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Library Element Quick Add

- Straight Duct
- Flexible Duct
- Elbow
- Branching
- End Reflection

**Damper Silencer** Add Path

Path (1)

Frequency	A	63	125	250	500	1k	2k	4k	8k
Calculation Path	41	49	46	43	38	35	31	23	17
Receiver: Receiver (35 dB(A))	41	49	46	43	38	35	31	23	17
Damper 1	41	0	0	0	0	0	0	0	0
REACT Va	49	46	43	38	35	31	23	17	
Simple Receiver Assignment	41	0	0	0	0	0	0	0	0
Receiver									

Ein einfacher Empfänger hat keine Raumdämpfung, es zeigt nur die aktuelle Schallleistung im Kanal an, Sie können es jedoch verwenden, um eine erforderliche Einfügungsdämpfung im Kanal einzustellen

### Analysis

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Straight Duct



Flexible Duct



Elbow



Branching



End Reflection



Noise Control



#### Damper Silencer

Path (1)									
Frequency	A	63	125	250	500	1k	2k	4k	8k
● Calculation Path	41	49	46	43	38	35	31	23	17
● Receiver: Receiver (35 dB(A))	41	49	46	43	38	35	31	23	17
Damper 1	41	0	0	0	0	0	0	0	0
REACT Va		49	46	43	38	35	31	23	17
<input type="checkbox"/> Simple Receiver Assignment	41	0	0	0	0	0	0	0	0
Receiver									

[Add Path](#)

Markieren Sie die Klappe, indem Sie darauf klicken

Klicken Sie dann auf Swegon Schalldämpfer

Schreiben Sie ein Tag und geben Sie die Abmessungen ein

## Silencer Selection

### Identity

#### Tag

Silencer 1

#### Quantity

1

### Dimensions & Airflow

#### Shape

Circular

#### Connection Dim

250

mm

#### Max Length

1200

mm

### Override Airflow & Velocity



#### Silencer Flow Rate

200

l/s

#### Velocity

4.07

m/s

#### Maximum Pressure Drop

87.18

Pa

### System Effects

#### Silencer Inlet Condition

Ideal Outlet Conditions - 3 to 4 diameters of straight duct

#### Diameter from Silencer

#### Transition Length

### Override Required Inserti...



### Required Insertion Loss

Frequency	dBA	63	125	250	500	1k	2k	4k	8k
Sound Before Attenuator	41	49	46	43	38	35	31	23	17
Required Insertion Loss	35	-	-	-	-	-	-	-	-
Calculated Insertion Loss	-	-	-	-	-	-	-	-	-
Safety Factor	0	0	0	0	0	0	0	0	0

### Silencer Selection

Model	Octave Midband Frequency, Hz											
	L	PD	w/SE	A	63	125	250	500	1k	2k	4k	8k
SORDO-A-250-500	500	3	3		2	2	5	10	16	15	8	6
Generated Noise					24	23	15	<10	<10	<10	<10	<10
End Result				33	47	44	38	28	19	16	15	12
SORDO-C-250-500	500	3	3		4	5	8	14	20	18	10	7
Generated Noise					24	23	15	<10	<10	<10	<10	<10
End Result				30	45	41	35	24	15	13	13	11
CLA-A-250-500	500	3	3		5	6	8	11	15	16	10	7
Generated Noise					25	25	21	19	16	13	12	10
End Result				31	44	40	35	28	22	17	16	13
CLA-B-250-500	500	16	16		3	6	8	14	24	32	20	9
Generated Noise					24	24	20	18	15	12	11	<10
End Result				30	46	40	35	25	17	13	12	12
SORDO-A-250-800	800	3	3		2	4	8	15	23	24	12	9
Generated Noise					24	23	15	<10	<10	<10	<10	<10
End Result				30	47	42	35	23	13	8	11	10
SORDO-C-250-800	800	3	3		4	7	11	19	27	27	14	10

### Options

Painted

### Resources

Product Sheet

[Sound attenuator for circular ducts](#)

Brochure

[Acoustics Overview](#)

Instruction

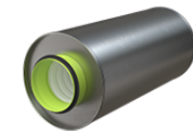
[Installation - Maintenance](#)

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### Image



Cancel

Create

# Silencer Selection

## Identity

Tag	Quantity
Silencer 1	1

## Dimensions & Airflow

Shape: Circular

Connection Dim: 250 mm

Max Length: 1200 mm

## Override Airflow & Velocity

Silencer Flow Rate: 200 l/s

Velocity: 4.07 m/s

Maximum Pressure Drop: 87.18 Pa

## System Effects

Silencer Inlet Condition: Ideal Outlet Conditions - 3 to 4 diameters of straight duct

Diameter from Silencer:

Transition Length:

## Override Required Inserti...

### Required Insertion Loss

Frequency	dBA	63	125	250	500	1k	2k	4k	8k
Sound Before Attenuator	41	49	46	43	38	35	31	23	17
Required Insertion Loss	35	-	-	-	-	-	-	-	-
Calculated Insertion Loss	-	-	-	-	-	-	-	-	-
Safety Factor	0	0	0	0	0	0	0	0	0

## Silencer Selection

Model	Octave Midband Frequency, Hz											
	L	PD	w/SE	A	63	125	250	500	1k	2k	4k	8k
SORDO-A-250-500	500	3	3		2	2	5	10	16	15	8	6
Generated Noise					24	23	15	<10	<10	<10	<10	<10
End Result				33	47	44	38	28	19	16	15	12
SORDO-C-250-500	500	3	3		4	5	8	14	20	18	10	7
Generated Noise					24	23	15	<10	<10	<10	<10	<10
End Result				30	45	41	35	24	15	13	13	11
CLA-A-250-500	500	3	3		5	6	8	11	15	16	10	7
Generated Noise					25	25	21	19	16	13	12	10
End Result				31	44	40	35	28	22	17	16	13
CLA-B-250-500	500	16	16		3	6	8	14	24	32	20	9
Generated Noise					24	24	20	18	15	12	11	<10
End Result				30	46	40	35	25	17	13	12	12
SORDO-A-250-800	800	3	3		2	4	8	15	23	24	12	9
Generated Noise					24	23	15	<10	<10	<10	<10	<10
End Result				30	47	42	35	23	13	8	11	10
SORDO-C-250-800	800	3	3		4	7	11	19	27	27	14	10

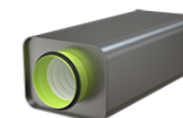
## Options

Painted

## Resources

- Product Sheet [Compact sound attenuator for circular ducts](#)
- Brochure [Acoustics Overview](#)
- Instruction [Installation - Maintenance](#)
- Quality [Building product declaration](#)
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## Image



Druckabfall

Schalleistung nach Schalldämpfer

Cancel Create

Wählen Sie einen Schalldämpfer in der Liste aus (markieren Sie ihn) und klicken Sie auf Erstellen

## Silencer Selection

**Identity**

Tag: Silencer 1      Quantity: 1

---

**Dimensions & Airflow**

Shape: Circular

Connection Dim: 250 mm

Max Length: 1200 mm

Override Airflow & Velocity:

Silencer Flow Rate: 200 m/s      Velocity: 4.07 m/s

Maximum Pressure Drop: 87.18 Pa

---

**System Effects**

Silencer Inlet Condition: Ideal Outlet Conditions - 3 to 4 diameters of straight duct

Diameter from Silencer: 0      Transition Length:

Silencer Outlet Condition: Ideal Outlet Conditions - 3 to 4 diameters of straight duct

Diameter from Silencer: 0      Transition Length:

Override Required Inserti...

**Required Insertion Loss**

Frequency	dBA	63	125	250	500	1k	2k	4k	8k
Sound Before Attenuator	41	49	46	43	38	35	31	23	17
<b>Required Insertion Loss</b>	<b>35</b>	-	-	-	-	-	-	-	-
Calculated Insertion Loss	-	-	-	-	-	-	-	-	-
Safety Factor	0	0	0	0	0	0	0	0	0

**Silencer Selection**

Model	Octave Midband Frequency, Hz											
	L	PD	w/SE	A	63	125	250	500	1k	2k	4k	8k
SORDO-A-250-500 Generated Noise End Result	500	3	3		2 24 33	2 23 44	5 15 38	10 -10 28	16 -10 19	15 -10 16	8 -10 15	6 -10 12
SORDO-C-250-500 Generated Noise End Result	500	3	3		4 24 30	5 23 41	8 15 35	14 -10 24	20 -10 15	18 -10 13	10 -10 13	7 -10 11
CLA-A-250-500 Generated Noise End Result	500	3	3		5 25 31	6 25 44	8 21 40	11 19 28	15 16 22	16 13 17	10 12 16	7 10 13
CLA-B-250-500 Generated Noise End Result	500	16	16		3 24 30	6 24 46	8 20 40	14 18 35	24 15 25	32 12 17	20 11 13	9 -10 12
SORDO-A-250-800 Generated Noise End Result	800	3	3		2 24 30	4 23 47	8 15 42	15 -10 35	23 -10 23	24 -10 8	12 -10 11	9 -10 10
SORDO-C-250-800 Generated Noise End Result	800	3	3		4 24 28	7 23 45	11 15 39	19 -10 32	27 -10 19	27 -10 6	14 -10 10	10 -10 9
CLA-A-250-1000 Generated Noise End Result	1000	3	3		6 25 26	11 25 43	15 21 35	20 19 22	28 16 17	31 13 13	18 12 13	14 10 11
CLA-B-250-1000 Generated Noise End Result	1000	16	16		7 24 25	12 24 42	17 20 35	30 18 27	43 15 19	40 12 12	34 11 11	16 -10 10

**Options**

Painted

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**Resources**

Product Sheet  
[Compact sound attenuator for circular ducts](#)

Brochure  
[Acoustics Overview](#)

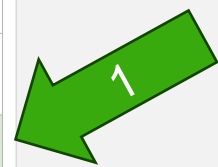
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---

**Image**



Schreiben Sie einen Namen auf den Pfad, indem Sie hier klicken

**Analysis**

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- Swegon Silencers

Calculation Modules

- Rectangular Breakout In-Line
- Circular Breakout In-Line

Library Element Quick Add

Straight Duct

Flexible Duct

Elbow

Branching

End Reflection

**Damper Silencer**

Path (1) ✎ ✕

Frequency	A	63	125	250	500	1k	2k	4k	8k
● Calculation Path	26	43	35	29	22	17	13	13	11
● Receiver: Receiver (35 dB(A))	26	43	35	29	22	17	13	13	11

**Damper 1**

REACT Va	41	0	0	0	0	0	0	0	0
	49	46	43	38	35	31	23	17	

**Silencer 1**

CLA-A-250-1000	26	-6	-11	-15	-20	-28	-31	-18	-14
	25	25	21	19	16	13	12	10	

Simple Receiver Assignment

Receiver	26	0	0	0	0	0	0	0	0
----------	----	---	---	---	---	---	---	---	---

Add Path

**Damper 1** ✓ ✕

Frequency	A	63	125	250	500	1k	2k	4k	8k
● Calculation Path	26	43	35	29	22	17	13	13	11
● Receiver: Receiver (35 dB(A))	26	43	35	29	22	17	13	13	11

Name speichern, indem Sie hier klicken



Sie können weitere Berechnungen hinzufügen, indem Sie auf "Pfad hinzufügen" oder "Ersten Pfad duplizieren" klicken

Swegon Home Products Analysis Reporting Users

MC

**Analysis**

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- Rectangular Breakout In-Line
- Circular Breakout In-Line

Library Element Quick Add

- Icons for various duct and component types

Straight Duct

Flexible Duct

Elbow

Branching

End Reflection

**Damper Silencer**

Diesen Pfad duplizieren

Damper 1	A	63	125	250	500	1k	2k	4k	8k
● Frequency									
● Calculation Path	26	43	35	29	22	17	13	13	11
● Receiver: Receiver (35 dB(A))	26	43	35	29	22	17	13	13	11

Wi-Fi Damper 1	41	0	0	0	0	0	0	0	0
REACT Va	49	46	43	38	35	31	23	17	

Box Silencer 1	26	-6	-11	-15	-20	-28	-31	-18	-14
CLA-A-250-1000	25	25	21	19	16	13	12	10	

Simple Receiver Assignment Receiver

Wenn Sie den Pfad duplizieren, erhalten Sie eine Kopie

Swegon Home Products **Analysis** Reporting Users

**Analysis**

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Library Element Quick Add

- Straight Duct
- Flexible Duct
- Elbow
- Branching
- End Reflection

**Damper Silencer**

Damper 1		A	63	125	250	500	1k	2k	4k	8k
●	Frequency	26	43	35	29	22	17	13	13	11
●	Calculation Path	29	46	38	32	25	20	16	16	14
●	Receiver: Receiver (35 dB(A))	29	46	38	32	25	20	16	16	14

Damper 1 (Copy)		A	63	125	250	500	1k	2k	4k	8k
●	Frequency	26	43	35	29	22	17	13	13	11
●	Calculation Path	29	46	38	32	25	20	16	16	14
●	Receiver: Receiver (35 dB(A))	29	46	38	32	25	20	16	16	14

Damper 1 (Copy) REACT Va		A	63	125	250	500	1k	2k	4k	8k
	Frequency	41	0	0	0	0	0	0	0	0
	Calculation Path	49	46	43	38	35	31	23	17	

Silencer 1 CLA-A-250-1000		A	63	125	250	500	1k	2k	4k	8k
	Frequency	26	-6	-11	-15	-20	-28	-31	-18	-14
	Calculation Path	25	25	21	19	16	13	12	10	

Simple Receiver Assignment Receiver		A	63	125	250	500	1k	2k	4k	8k
	Frequency	26	0	0	0	0	0	0	0	0
	Calculation Path	26	0	0	0	0	0	0	0	0

**Damper 1 (Copy)**

Damper 1 (Copy)		A	63	125	250	500	1k	2k	4k	8k
●	Frequency	26	43	35	29	22	17	13	13	11
●	Calculation Path	29	46	38	32	25	20	16	16	14
●	Receiver: Receiver (35 dB(A))	29	46	38	32	25	20	16	16	14

Damper 1 (Copy) REACT Va		A	63	125	250	500	1k	2k	4k	8k
	Frequency	41	0	0	0	0	0	0	0	0
	Calculation Path	49	46	43	38	35	31	23	17	

Silencer 1 CLA-A-250-1000		A	63	125	250	500	1k	2k	4k	8k
	Frequency	26	-6	-11	-15	-20	-28	-31	-18	-14
	Calculation Path	25	25	21	19	16	13	12	10	

Simple Receiver Assignment Receiver		A	63	125	250	500	1k	2k	4k	8k
	Frequency	26	0	0	0	0	0	0	0	0
	Calculation Path	26	0	0	0	0	0	0	0	0

[Add Path](#)

Ändern Sie den Namen auf dem neuen Pfad und ändern Sie die Klappe, indem Sie darauf klicken.

**Analysis**

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- Circular Breakout In-Line

Library Element Quick Add

- Straight Duct
- Flexible Duct
- Elbow
- Branching
- End Reflection

**Damper Silencer**

Damper 1		A	63	125	250	500	1k	2k	4k	8k
●	Frequency	26	43	35	29	22	17	13	13	11
●	Calculation Path	31	49	41	35	27	20	16	16	15
●	Receiver: Receiver (35 dB(A))	31	49	41	35	27	20	16	16	15
📶	Damper 1 (Copy) REACT Va	41	0	0	0	0	0	0	0	0
		49	46	43	38	35	31	23	17	
📦	Silencer 1 CLA-A-250-1000	26	-6	-11	-15	-20	-28	-31	-18	-14
		25	25	21	19	16	13	12	10	10
<input type="checkbox"/>	Simple Receiver Assignment Receiver	26	0	0	0	0	0	0	0	0

**Damper 2**

Damper 2		A	63	125	250	500	1k	2k	4k	8k
●	Frequency	30	48	39	33	26	18	13	13	13
●	Calculation Path	31	49	41	35	27	20	16	16	15
●	Receiver: Receiver (35 dB(A))	31	49	41	35	27	20	16	16	15
📶	Damper 2 REACT Va	46	0	0	0	0	0	0	0	0
		54	50	48	45	41	33	25	24	
📦	Silencer 1 CLA-A-250-1000	30	-6	-11	-15	-20	-28	-31	-18	-14
		25	25	21	19	16	13	12	10	10
<input type="checkbox"/>	Simple Receiver Assignment Receiver	30	0	0	0	0	0	0	0	0

[Add Path](#)

Name ändern an der Klappe

und ändere die Konfiguration

### Damper 2

**Project Tag**

Damper 2

**Category**

All

**Product line**

REACT Va

**Air**

**Airflow**

200

**Duct pressure before damper**

100

**Pressure drop after damper**

60

**Product Configuration**

Circular/Rectangular

Rectangular

**Width**

600 mm

**Height**

300 mm

**Duct connection**

250 mm



Total pressure drop 0.0

Sound table	63	125	250	500	1k	2k	4k	8k	Lw(A)
Sound power	54	50	48	45	41	33	25	24	46
Sound attenuation	0	0	0	0	0	0	0	0	-

# Wählen Sie einen neuen Schalldämpfer aus, indem Sie auf die alte Schaltfläche klicken

Home Products Analysis Reporting Users
MC

**Analysis**

Views

- [Analysis](#)
- [Filter](#)

Libraries

- [Library](#)
- [Receivers](#)

Product Configurators

- [Swegon Silencers](#)

Calculation Modules

- [Rectangular Breakout In-Line](#)
- [Circular Breakout In-Line](#)

Library Element Quick Add

Straight Duct

Flexible Duct

Elbow

Branching

End Reflection

**Damper Silencer**

Damper 1											
Frequency	A	63	125	250	500	1k	2k	4k	8k		
Calculation Path	26	43	35	29	22	17	13	13	11		
Receiver: Receiver (35 dB(A))	31	49	41	35	27	20	16	16	15		
Damper 1 (Copy)	41	0	0	0	0	0	0	0	0		
REACT Va	49	46	43	38	35	31	23	17			
Silencer 1	26	-6	-11	-15	-20	-28	-31	-18	-14		
CLA-A-250-1000	25	25	21	19	16	13	12	10			
<input type="checkbox"/> Simple Receiver Assignment	26	0	0	0	0	0	0	0	0		
<input type="checkbox"/> Receiver											

Damper 2											
Frequency	A	63	125	250	500	1k	2k	4k	8k		
Calculation Path	30	48	39	33	26	18	13	13	13		
Receiver: Receiver (35 dB(A))	31	49	41	35	27	20	16	16	15		
Damper 2	46	0	0	0	0	0	0	0	0		
REACT Va	54	50	48	45	41	33	25	24			
Silencer 1	30	-6	-11	-15	-20	-28	-31	-18	-14		
CLA-A-250-1000	25	25	21	19	16	13	12	10			
<input type="checkbox"/> Simple Receiver Assignment	30	0	0	0	0	0	0	0	0		
<input type="checkbox"/> Receiver											

[Add Path](#)

Klicken Sie auf Schalldämpfer

Wählen Sie einen neuen Schalldämpfer aus und klicken Sie auf Aktualisieren

## Silencer Selection

### Identity

Tag

Quantity

Silencer 1

1

### Dimensions & Airflow

Shape

Rectangular/MORENDO

Duct Width

600

mm

Duct Height

300

mm

Max Length

650

mm

### Override Airflow & Velocity

Silencer Flow Rate

200

l/s

Velocity

1.11

m/s

Maximum Pressure Drop

2.72

Pa

### System Effects

Silencer Inlet Condition

Ideal Outlet Conditions - 3 to 4 diameters of straight duct

Diameter from Silencer

Transition Length

### Override Required Inserti...

#### Required Insertion Loss

Frequency	dB(A)	63	125	250	500	1k	2k	4k	8k
Sound Before Attenuator	46	54	50	48	45	41	33	25	24
Required Insertion Loss	35	-	-	-	-	-	-	-	-
Calculated Insertion Loss	-	-	-	-	-	-	-	-	-
Safety Factor	0	0	0	0	0	0	0	0	0

#### Silencer Selection

Model	Octave Midband Frequency, Hz											
	L	PD	w/SE	A	63	125	250	500	1k	2k	4k	8k
MORENDO α-0301-600-300-650	650	2	2		4	8	13	21	25	25	13	8
Generated Noise					14	14	10	<10	<10	<10	<10	<10
End Result				31	50	42	35	24	16	9	12	16

### Options

#### Unisolated Cleaning Cover

None

- Insulated 50mm Stone Wool
- Perforated Sheet Metal Lining
- Flange Connection (Bolt Flange)
- Euro Flange 30mm (METU)

#### Resources

Product Sheet

[Rectangular sound attenuator with low build-in heights](#)

Brochure

[Acoustics Overview](#)

Instruction

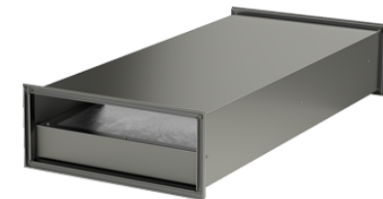
[Installation, commissioning, maintenance](#)

Quality

[Approval 2706/92, Duct insulation](#)

[Building product declaration](#)

#### Image



Cancel

Update

Bewegen Sie den Mauszeiger über "Berichte" und klicken Sie auf "Silencer Submittal"

- Calculation Summary
- Silencer Schedule
- Silencer Submittal

### Analysis

#### Views

- Analysis
- Filter

#### Libraries

- Library
- Receivers

#### Product Configurators

- Swegon Silencers

#### Calculation Modules

- Rectangular Breakout In-Line
- Circular Breakout In-Line

#### Library Element Quick Add



#### Straight Duct



#### Flexible Duct



#### Elbow



#### Branching



#### End Reflection



Damper 1		A	63	125	250	500	1k	2k	4k	8k
●	Frequency									
●	Calculation Path	26	43	35	29	22	17	13	13	11
●	Receiver: Receiver (35 dB(A))	32	51	43	36	26	19	15	16	17
📶	Damper 1 (Copy) REACT Va	41	0	0	0	0	0	0	0	0
		49	46	43	38	35	31	23	17	
📦	Silencer 1 CLA-A-250-1000	26	-6	-11	-15	-20	-28	-31	-18	-14
		25	25	21	19	16	13	12	10	
<input type="checkbox"/>	Simple Receiver Assignment Receiver	26	0	0	0	0	0	0	0	0

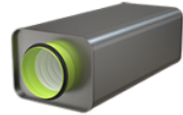
Damper 2		A	63	125	250	500	1k	2k	4k	8k
●	Frequency									
●	Calculation Path	31	50	42	35	24	16	9	12	16
●	Receiver: Receiver (35 dB(A))	32	51	43	36	26	19	15	16	17
📶	Damper 2 REACT Va	46	0	0	0	0	0	0	0	0
		54	50	48	45	41	33	25	24	
📦	Silencer 1 MORENDO a-0301-600-300-650	31	-4	-8	-13	-21	-25	-25	-13	-8
		14	14	<10	<10	<10	<10	<10	<10	
<input type="checkbox"/>	Simple Receiver Assignment Receiver	31	0	0	0	0	0	0	0	0

[Add Path](#)

## Silencer Submittal

Project: Damper Silencer

CLA-A-250-1000



**Path**

Damper 1

**Position**

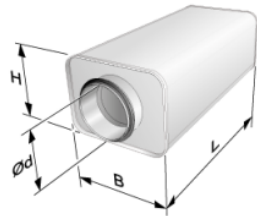
Silencer 1

### Quick Facts

- Extremely low installation height.
- Excellent sound attenuation
- Mineral wool covered with special polyester woven fabric.
- Tightness Class D
- Low pressure drop
- Included in the MagiCAD database
- Type-approved
- Fire-resistance classes EI30-EI120\* \*See required protection distance
- M1 classified

### General

- A rectangular sound attenuator with circular connection spigots.
- Unique properties regarding installation height, fire-resistance class, fibre-migration proof design and sound attenuation.
- Patented self-supporting fibre-migration proof surface lining and end wall solution.



### Dimensions

Width, W	394mm
Height, H	302mm
Length, L	1000mm
Diameter, Ød	250mm
Weight	14.6kg

### Data

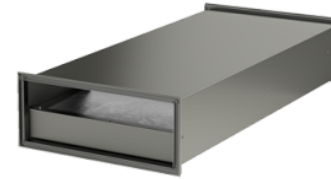
Inlet	Ideal Outlet Conditions - 3 to 4 diameters of straight duct
Outlet	Ideal Outlet Conditions - 3 to 4 diameters of straight duct
Air flow (l/s)	200
Velocity (m/s)	2
Pressure drop (Pa)	3

Frequency band	63	125	250	500	1k	2k	4k	8k	Sum db(A)
Lw before attenuator	49	46	43	38	35	31	23	17	41
Attenuation (Ld)	6	11	15	20	28	31	18	14	
Sound generation (Lw)	25	25	21	19	16	13	12	10	
Lw after attenuator	43	35	29	22	17	13	13	11	26

## Silencer Submittal

Project: Damper Silencer

MORENDO a-0301-600-300-650



**Path**

Damper 2

**Position**

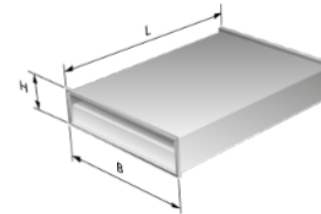
Silencer 1

### Quick Facts

- Included in the MagiCAD database
- Low pressure drop via tapered acoustic baffle surfaces
- Available with cleaning cover
- ISOVER Cleantec® PLUS is cleanable using a wet method.
- Can be used everywhere where rectangular sound attenuators are used
- Low installation height
- Type-approved insulation material, ISOVER Cleantec® PLUS
- Available in a cleanable version
- Connection sizes ranging from 150x150 to 400x1000 mm

### General

- The MORENDO is a rectangular sound attenuator with extra low installation height to enable it to be used in installations where available space is restricted.



### Dimensions

Width, W	600mm
Height, H	300mm
Length, L	650mm
Weight	14kg

### Data

Inlet	Ideal Outlet Conditions - 3 to 4 diameters of straight duct
Outlet	Ideal Outlet Conditions - 3 to 4 diameters of straight duct
Air flow (l/s)	200
Velocity (m/s)	1
Pressure drop (Pa)	2

Frequency band	63	125	250	500	1k	2k	4k	8k	Sum db(A)
Lw before attenuator	54	50	48	45	41	33	25	24	46
Attenuation (Ld)	4	8	13	21	25	25	13	8	
Sound generation (Lw)	14	14	<10	<10	<10	<10	<10	<10	
Lw after attenuator	50	42	35	24	16	9	12	16	31

Schall Berechnungen



# Tipps und Tricks



Sie können Objekte stummschalten, indem Sie auf das Stummschaltssymbol klicken  
 Dann wird das Objekt grau und wird nicht mehr in die Schallberechnung einbezogen.  
 Sie können die Stummschaltung auf die gleiche Weise aufheben.

Extract Air		dBA	63	125	250	500	1k	2k	4k	8k
●	Frequency									
●	Total	20	16	16	20	12	10	-	12	17
	Required Insertion Loss	30	-	-	-	-	-	-	-	-
●	Receiver: Office Room 123 (30 dB(A))	24	30	27	24	12	10	2	17	22
🎧	AHU 123 Extract	84	82	81	80	80	80	76	75	74
📦	Silencer 1 CALMO a-1621-1600-800-1250	59	-7	-15	-24	-39	-45	-40	-23	-17
📦	Rectangular Duct 1600mm x 800mm x 3m	59	-2	-1	-1	-0	-0	-0	-0	-0
📦	Branch - Takeoff 1600mm x 800mm/400mm x 400mm	49	-10	-10	-10	-10	-10	-10	-10	-10
📦	Rectangular Duct 400mm x 400mm x 3m	48	-4	-2	-1	-0	-0	-0	-0	-0
📦	Branch - Takeoff 400mm x 400mm/200mm	41	-8	-8	-8	-8	-8	-8	-8	-8
📦	Circular Duct 200mm x 3m	40	-0	-0	-0	-0	-1	-1	-1	-0

Add Path

Hover over this area to show the bar

📦 🎧 🔇 🗑️ ✎

Mute button

Extract Air		dBA	63	125	250	500	1k	2k	4k	8k
●	Frequency									
●	Total	48	22	30	41	41	47	35	35	34
	Required Insertion Loss	30	-	-	-	-	-	-	-	-
●	Receiver: Office Room 123 (30 dB(A))	48	30	32	41	41	47	35	35	34
🎧	AHU 123 Extract	84	82	81	80	80	80	76	75	74
📦	Silencer 1 CALMO a-1621-1600-800-1250	-	-7	-15	-24	-39	-45	-40	-23	-17
📦	Rectangular Duct 1600mm x 800mm x 3m	84	-2	-1	-1	-0	-0	-0	-0	-0
📦	Branch - Takeoff 1600mm x 800mm/400mm x 400mm	75	-10	-10	-10	-10	-10	-10	-10	-10
📦	Rectangular Duct 400mm x 400mm x 3m	74	-4	-2	-1	-0	-0	-0	-0	-0
📦	Branch - Takeoff 400mm x 400mm/200mm	66	-8	-8	-8	-8	-8	-8	-8	-8
📦	Circular Duct 200mm x 3m	66	-0	-0	-0	-0	-1	-1	-1	-0
📦	Branch - Takeoff 200mm/125mm	60	-6	-6	-6	-6	-6	-6	-6	-6
📶	Extract Diffusor 1 ALG	52	-28	-21	-10	-11	-5	-13	-12	-12
📦	Room Effect - Classic Field Office Room 123	48	-4	-4	-4	-4	-4	-4	-4	-4

Der Vorteil besteht darin, sehen zu können, was das Ergebnis ist, ohne z.B. einen Schalldämpfer, ohne ein Objekt zu löschen.

## Schnelles Hinzufügen von Bibliothekselementen ohne Drag & Drop

Extract Air		dB(A)	63	125	250	500	1k	2k	4k	8k
● Total		20	16	16	20	12	10	-	12	17
● Required Insertion Loss		30	-	-	-	-	-	-	-	-
● Receiver: Office Room 123 (30 dB(A))		24	30	27	24	12	10	2	17	22
🎯 AHU 123 Extract		84	82	81	80	80	80	76	75	74
📦 Silencer 1 CALMO a-1621-1600-800-1250		59	-7	-15	-24	-39	-45	-40	-23	-17
📦 Rectangular Duct 1600mm x 800mm x 3m		59	-2	-1	-1	-0	-0	-0	-0	-0
📦 Branch - Takeoff 1600mm x 800mm/400mm x 400mm		49	-10	-10	-10	-10	-10	-10	-10	-10
📦 Rectangular Duct 400mm x 400mm x 3m		48	-4	-2	-1	-0	-0	-0	-0	-0
📦 Branch - Takeoff 400mm x 400mm/200mm		41	-8	-8	-8	-8	-8	-8	-8	-8
📦 Circular Duct		40	-0	-0	-0	-0	-1	-1	-1	-0

**Add Path**

Bewegen Sie den Mauszeiger hierher, um die Leiste zu sehen

Löschen Edit

Schnelles Hinzufügen von Elementen

## Bewegen Sie den Mauszeiger über das Elementsymbol Schnelles Hinzufügen durch Klicken auf "Hinzufügen"

Swegon Silencers

Calculation Modules

- Rectangular Breakout In-Line
- Circular Breakout In-Line

Library Element Quick Add

- Straight Duct
  - 📦 Add
  - 📦 Branch
  - 📦 Circular Duct
  - Unlined and acoustically lined round ducts.
- Flexible Duct
- Elbow
- Branching
- End Reflection

Receiver: Office Room 123 (30 dB(A))		24	30	27	24	12
🎯 AHU 123 Supply		87	85	83	82	82
📦 Silencer 1 CALMO a-1621-1600-800-1250		62	-7	-15	-24	-35
📦 Rectangular Duct 1600mm x 800mm x 3m		61	-2	-1	-1	-0
📦 Branch - Takeoff 1600mm x 800mm/400mm x 400mm		52	-10	-10	-10	-10
📦 Rectangular Duct 400mm x 400mm x 3m		51	-4	-2	-1	-0
📦 Branch - Takeoff 400mm x 400mm/200mm		43	-8	-8	-8	-8
📦 Circular Duct 200mm x 3m		42	-0	-0	-0	-0
📦 Branch - Takeoff 200mm/125mm		37	-6	-6	-6	-6
📦 Supply Diffusor 1 (Copy) EAGLE Ceiling C		26	-16	-11	-8	-16
📦 Room Effect - Classic Field Office Room 123		22	-4	-4	-4	-4

# Ermitteln des korrekten Druckabfalls für den Schalldämpfer mithilfe von Systemeffekten

## Silencer Selection

### Identity

Tag: Silencer 1      Quantity: 1

### Dimensions & Airflow

Shape: Rectangular/CALMO

Duct Width: 1600 mm      Duct Height: 800 mm

Max Length: 1250 mm

### Override Airflow & Velocity

Silencer Flow Rate: 3000 l/s      Velocity: 2.34 m/s

Maximum Pressure Drop: 50 Pa

### System Effects

Silencer Inlet Condition: Axial Fan

Diameter from Silencer: 0      Transition Length:

Silencer Outlet Condition: Radius Elbow with no turning vanes

### Override Required Inserti...

#### Required Insertion Loss

Frequency	dBA	63	125	250	500	1k	2k	4k	8k
Sound Before Attenuator	87	85	83	82	82	82	78	78	76
Required Insertion Loss	30	-	-	-	-	-	-	-	-
Calculated Insertion Loss	-	-	-	-	-	-	-	-	-
Safety Factor	0	0	0	0	0	0	0	0	0

### Silencer Selection

Model	Octave Midband Frequency, Hz											
	L	PD	w/SE	A	63	125	250	500	1k	2k	4k	8k
CALMO a-1611-1600-800-650	650	6	12		5	10	15	23	27	27	15	10
Generated Noise			+9		28	28	24	22	19	16	15	13
End Result				30	32	32	30	15	9	11	24	27
CALMO a-1621-1600-800-1250	1250	7	14		7	15	24	39	45	40	23	17
Generated Noise			+9		28	28	24	22	19	16	15	13
End Result				22	30	27	21	1	0	0	16	20
CALMO a-1622-1600-800-1250	1250	3	7		4	9	16	21	25	18	11	11
Generated Noise			+9		11	11	<10	<10	<10	<10	<10	<10
End Result				32	33	33	29	17	11	20	28	26

### Options

Uninsulated Cleaning Cover: None

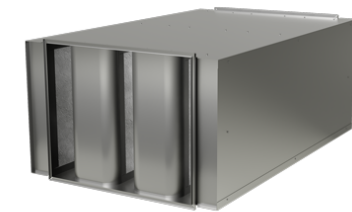
Fire-Resistant Insulated Cleaning Cover: None

- Insulated 50mm Stone Wool
- Perforated Sheet Metal Lining
- Flange Connection

### Resources

- Product Sheet  
[Attenuator with recessed connection for rectangular ducts](#)
- Brochure  
[Acoustics Overview](#)
- Instruction  
[Installation, commissioning, maintenance](#)
- Quality  
[Approval 2706/92, Duct insulation](#)  
[Building product declaration](#)

### Image



Druckabfall mit Systemeffekten

Druckabfall bei idealen Bedingungen  
(3-4 Durchmesser gerader Kanal)

# Silencer Selection

**Identity**

Tag: Silencer 1      Quantity: 1

**Dimensions & Airflow**

Shape: Rectangular/CALMO

Duct Width: 1600 mm      Duct Height: 800 mm

Max Length: 1250 mm

Override Airflow & Velocity:

Silencer Flow Rate: 3000 l/s      Velocity: 2.34 m/s

**Maximum Pressure Drop**: 3 Pa

**System Effects**

Silencer Inlet Condition: Axial Fan

Diameter from Silencer: 0      Transition Length:

Silencer Outlet Condition: Radius Elbow with no turning vanes

Override Required Inserti...

**Required Insertion Loss**

Frequency	dBA	63	125	250	500	1k	2k	4k	8k
Sound Before Attenuator	87	85	83	82	82	82	78	78	76
Required Insertion Loss	30	-	-	-	-	-	-	-	-
Calculated Insertion Loss	-	-	-	-	-	-	-	-	-
Safety Factor	0	0	0	0	0	0	0	0	0

**Silencer Selection**

Model	Octave Midband Frequency, Hz											
	L	PD	w/SE	A	63	125	250	500	1k	2k	4k	8k
No silencers found matching your parameters												

**Options**

Please select a silencer to configure options

Wenn Sie keine Schalldämpfer in der Liste sehen, Das liegt wahrscheinlich daran, dass der maximale Druckabfall zu niedrig eingestellt ist. Erhöhen Sie den Wert auf 50 Pa oder höher.

**Swegon** 

