

# ClimBox

## Die Wohnungslüftungsbox von komfovent<sup>®</sup>



Die ClimBox ist eine kompakte Wohnungslüftungsbox mit 2 Volumenstromreglern im Inneren und zwei Schalldämpfern als Option.

Die integrierten Volumenstromreglern regulieren den Luftstrom in der Zuluft und in der Abluft.

Die Luftmengen in der Wohnung können mit der Climtouch<sup>®</sup> Fernbedienung geregelt werden.

Beide Antriebe sind mit dem Netzteil intern vorverdrahtet und die ClimBox muss noch elektrisch angeschlossen werden.

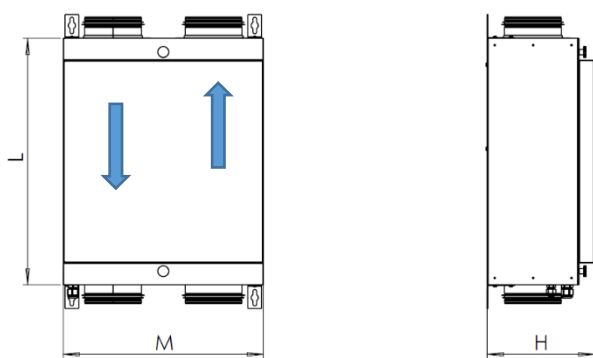
### Positive Aspekte:

- ✓ Kompakte Lösung
- ✓ Belimo Antriebe mit MP-BUS lieferbar
- ✓ Reduziert die Installationszeit
- ✓ Befestigungslaschen
- ✓ Wartungsfreundlich durch Revisionsklappe
- ✓ VAV's können leicht erreicht und ausgetauscht werden
- ✓ Geringerer Energieverbrauch des gesamten Lüftungssystems
- ✓ ClimBox gebaut aus verzinktem Stahl
- ✓ Klappe luftdicht schliessend gemäss Klasse 3 nach EN 1751
- ✓ Gehäuseluftleckage nach EN 1751, Klasse C.
- ✓ Erhältlich in den Grössen Ø100, 125, 160 mm
- ✓ Kurze Lieferfristen

### Volumenstrom Messbereich

| Grösse Ø | $V_{\min}$ m <sup>3</sup> /h | $V_{\max}$ m <sup>3</sup> /h |
|----------|------------------------------|------------------------------|
| 100      | 28                           | 283                          |
| 125      | 44                           | 442                          |
| 160      | 72                           | 724                          |

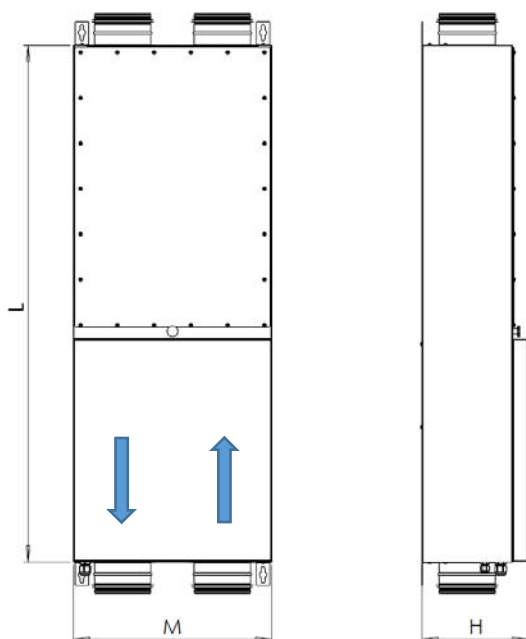
### ClimBox kompakt



| Grösse Ø | M, mm | L, mm | H, mm |
|----------|-------|-------|-------|
| 100      | 388   | 540   | 210   |
| 125      | 438   | 540   | 235   |
| 160      | 508   | 540   | 270   |
| Gewicht  | 13Kg  |       |       |




\*Pfeile zeigen die Luftrichtung an

### ClimBox mit integrierten Z-Schalldämpfer



| Grösse Ø | M, mm | L, mm | H, mm |
|----------|-------|-------|-------|
| 100      | 388   | 1142  | 210   |
| 125      | 438   | 1142  | 235   |
| 160      | 508   | 1142  | 270   |
| Gewicht  | 22Kg  |       |       |

### Modellübersicht / Funktionsvergleich

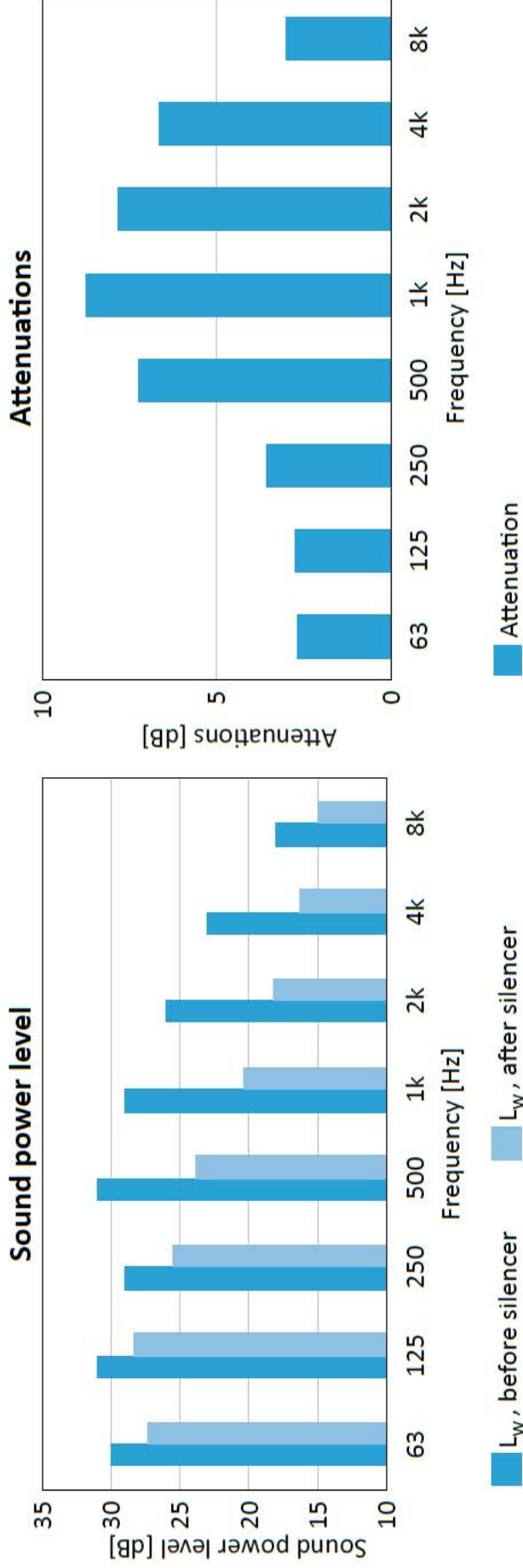
|  | -MF            | -MP   | -KNX   | -MOD  |
|--|----------------|---|--|---|
|  |                |  |  |  |
| Anwendungsbereich:<br>Zu-/Abluft im Komfortbereich und<br>fühlerverträglichen Medien |                | X   | X  | X   |
| Speisung AC/DC 24 V  | X              | X   | X  | X   |
| Δp-Sensor eingebaut,<br>dynamisch D3, Messbereich:                                   | -20 ... 500 Pa | -20 ... 500 Pa  | -20 ... 500 Pa   | -20 ... 500 Pa  |
| Antriebsvarianten:   |                |   |  |   |
| - Drehantrieb  | 5 / 10 Nm      | 5 / 10 / 20 Nm  | 5 / 10 / 20* Nm  | 5 / 10 / 20* Nm   |
| - Linearantrieb  | -              | 150 / 200 / 300 mm  | 150* / 200* / 300* mm  | 150* / 200* / 300* mm   |
| VAV Funktion □min ... □max   | X              | X   | X  | X   |
| CAV-Stufen □min / □mid / □max  | X              | X   | -  | -   |
| Open Loop (V-Regelung extern)  | X              | X   | X  | X   |
| DCV (Optimiser Funktion)   | -              | DDC MP Partners<br>Belimo Fan Optimiser   | Ja, programmierbar   | Ja, programmierbar  |
| Analogansteuerung  | 0/2 ... 10 V   | 0/2 ... 10 V  | -  | -   |
| Busansteuerung   | -              | X   | X  | X   |
| Busspezifikation   | -              | Belimo MP bus   | KNX<br>S-Mode  | Modbus RTU<br>RS485   |
| Direktintegration DDC MP-Partner   | -              | X   | -  | -   |
| Integration via Gateway  | -              |   | -  | -   |
| - BACnet   |                | X   |  |   |
| - KNX  |                | X   |  |   |
| - Modbus RTU   |                | X   |  |   |
| Anzahl Busteilnehmer   | -              | 8 pro Strang  | 64 pro Liniensegment   | 32 pro Strang   |
| Sensor-Integration   | -              |   |  |   |
| - passiv (Widerstand)  |                | X   | -  | -   |
| - aktiv (0...10 V)   |                | X   | X  | X   |
| - Schaltkontakt  |                | X   | X  | X   |
| Optionale Regelfunktion  | -              | -   | -  | -   |
| Lokaler Zwang (Übersteuerung)  | -              | ZU / □max / AUF   | ZU / □max / AUF  | ZU / □max / AUF   |
| Hilfsmittel  | -              | MP-Bus Tester MP<br>Monitor   | ETS<br>Produktdatenbank  | -   |
| Integrations-Tool  | -              | PC-Tool   | ETS  | ...   |
| TypList-Funktion (Retrofit, OEM)   | -              | X   | (-)  | (-)   |
| Toolanschluss (U – PP/MP)  | PP             | PP/MP   | PP   | PP  |
| Servicebuchse ZTH / PC-Tool  | X              | X   | X  | X   |
| NFC-Interface  | -              | X   | -  | -   |
| Assistant App  | -              | X   | -  | -   |
| Service-Tool ZTH EU  | X              | X   | X  | X   |
| PC-Tool  | X              | X   | X  | X   |
| - Parameter  |                |   |  |   |
| - Daten speichern  |                |   |  |   |
| - Trend, Logbook   |                |   |  |   |
| - Label Print  |                |   |  |   |

\* auf Anfrage

**Flow generated noise  $L_{WA}$ , dBA @ KOS-C-100 damper ( $\alpha=30^\circ$ )**

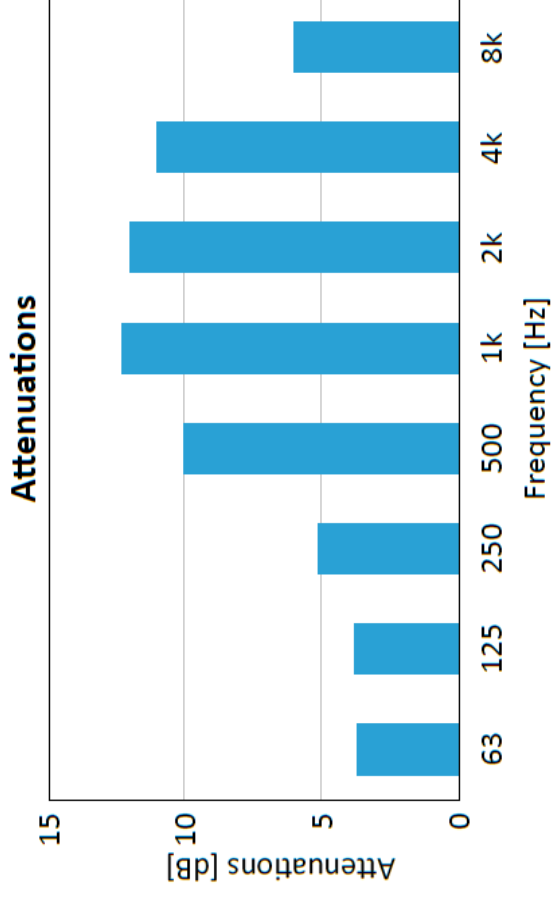
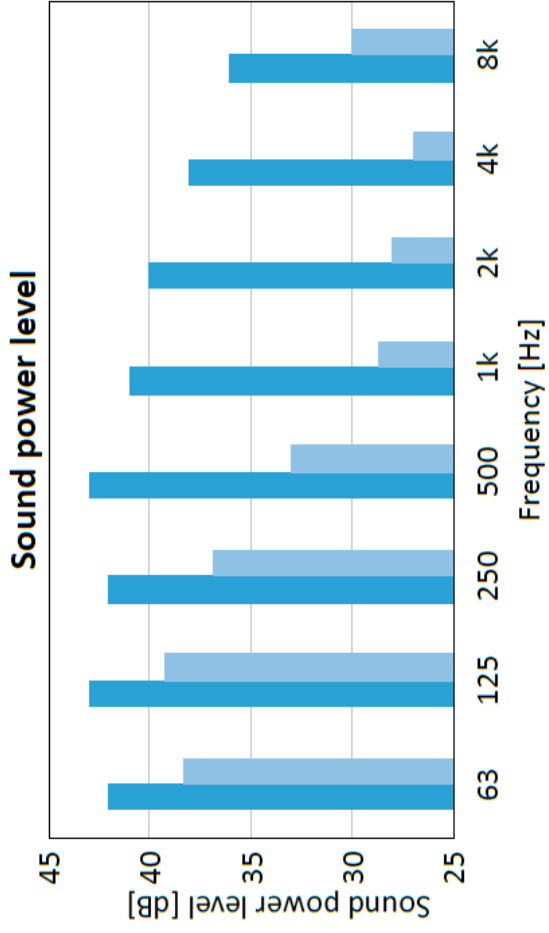
|                  | fm, Hz         |     |     |     |      |      |      |      | Total, dBA |
|------------------|----------------|-----|-----|-----|------|------|------|------|------------|
|                  | 63             | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 |            |
|                  | $L_{WA}$ , dBA |     |     |     |      |      |      |      |            |
| v=2 m/s (57m3h)  | 30             | 31  | 29  | 31  | 29   | 26   | 23   | 18   | 33.7       |
| v=4 m/s (113m3h) | 42             | 43  | 42  | 43  | 41   | 40   | 38   | 36   | 46.9       |
| v=6 m/s (170m3h) | 64             | 65  | 64  | 66  | 64   | 63   | 62   | 59   | 70.0       |

**Integrated Silencer efficiency, dBA for KOS-C-100 damper @ v=2 m/s (57m3h)**



|                             |      |      |      |      |      |      |      |      |            |
|-----------------------------|------|------|------|------|------|------|------|------|------------|
| Frequency, Hz               | 63   | 125  | 250  | 500  | 1k   | 2k   | 4k   | 8k   | Total, dBA |
| $L_w$ , before silencer, dB | 30,0 | 31,0 | 29,0 | 31,0 | 29,0 | 26,0 | 23,0 | 18,0 | 33,7       |
| Attenuation, dB             | 2,7  | 2,8  | 3,5  | 7,2  | 8,7  | 7,8  | 6,6  | 3,0  | 7,2        |
| $L_w$ , after silencer, dB  | 27,3 | 28,2 | 25,5 | 23,8 | 20,3 | 18,2 | 16,4 | 15,0 | 26,5       |

**Integrated Silencer efficiency, dBA for KOS-C-100 damper @ v=4 m/s (113m3h)**



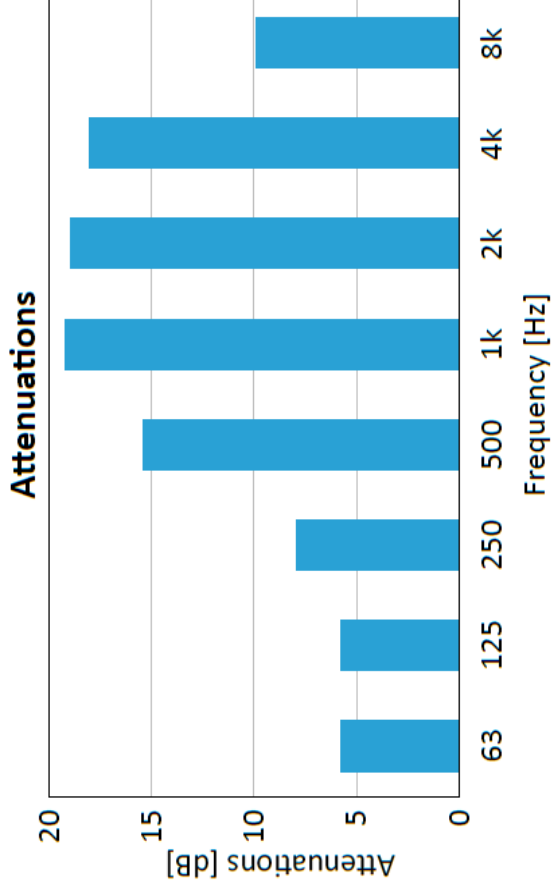
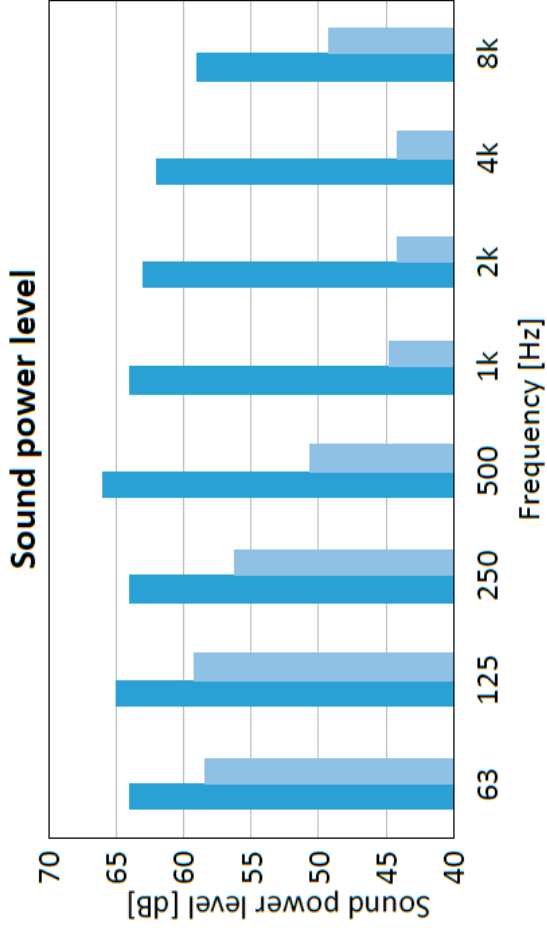
$L_w$ , before silencer

$L_w$ , after silencer

Attenuation

| Frequency, Hz               | 63   | 125  | 250  | 500  | 1k   | 2k   | 4k   | 8k   | Total, dBA |
|-----------------------------|------|------|------|------|------|------|------|------|------------|
| $L_w$ , before silencer, dB | 42,0 | 43,0 | 42,0 | 43,0 | 41,0 | 40,0 | 38,0 | 36,0 | 46,9       |
| Attenuation, dB             | 3,7  | 3,8  | 5,1  | 10,0 | 12,3 | 12,0 | 11,0 | 6,0  | 10,1       |
| $L_w$ , after silencer, dB  | 38,3 | 39,2 | 36,9 | 33,0 | 28,7 | 28,0 | 27,0 | 30,0 | 36,8       |

**Integrated Silencer efficiency, dBA for KOS-C-100 damper @ v=6 m/s (170m3h)**



■  $L_w$ , before silencer

■  $L_w$ , after silencer

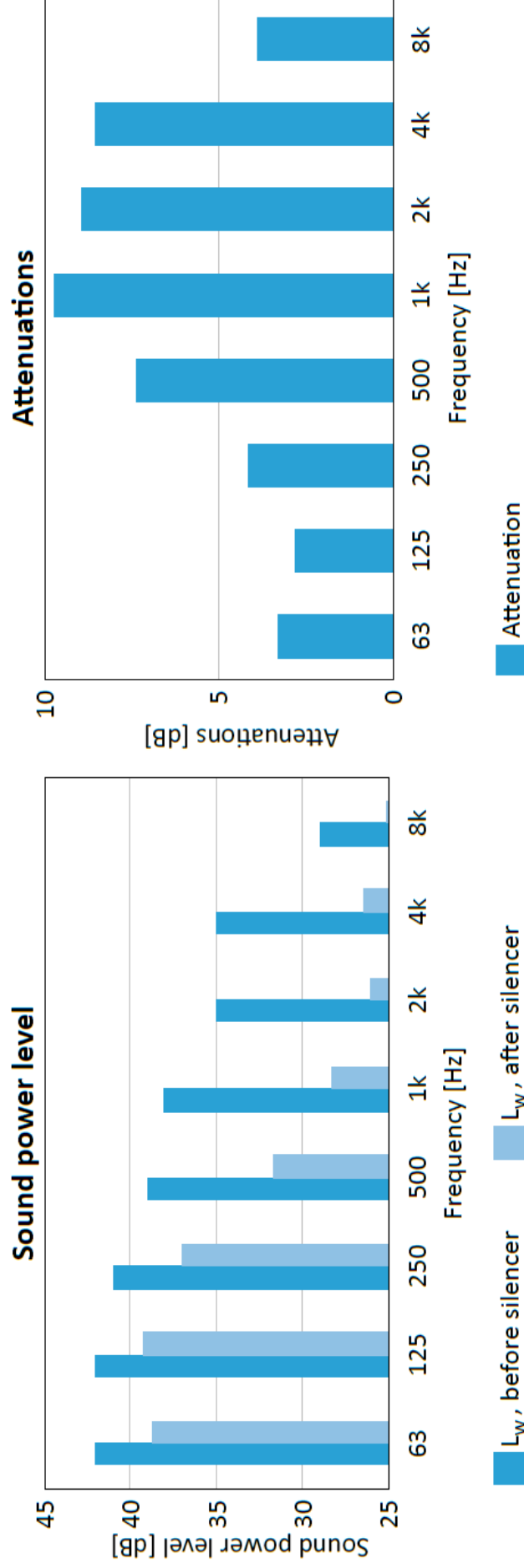
■ Attenuation

| Frequency, Hz               | 63   | 125  | 250  | 500  | 1k   | 2k   | 4k   | 8k   | Total, dBA |
|-----------------------------|------|------|------|------|------|------|------|------|------------|
| $L_w$ , before silencer, dB | 64,0 | 65,0 | 64,0 | 66,0 | 64,0 | 63,0 | 62,0 | 59,0 | 70,0       |
| Attenuation, dB             | 5,7  | 5,8  | 7,8  | 15,4 | 19,2 | 18,9 | 17,9 | 9,8  | 15,4       |
| $L_w$ , after silencer, dB  | 58,3 | 59,2 | 56,2 | 50,6 | 44,8 | 44,1 | 44,1 | 49,2 | 54,7       |

**Flow generated noise LWA, dBA @ KOS-C-125 damper ( $\alpha=30^\circ$ )**

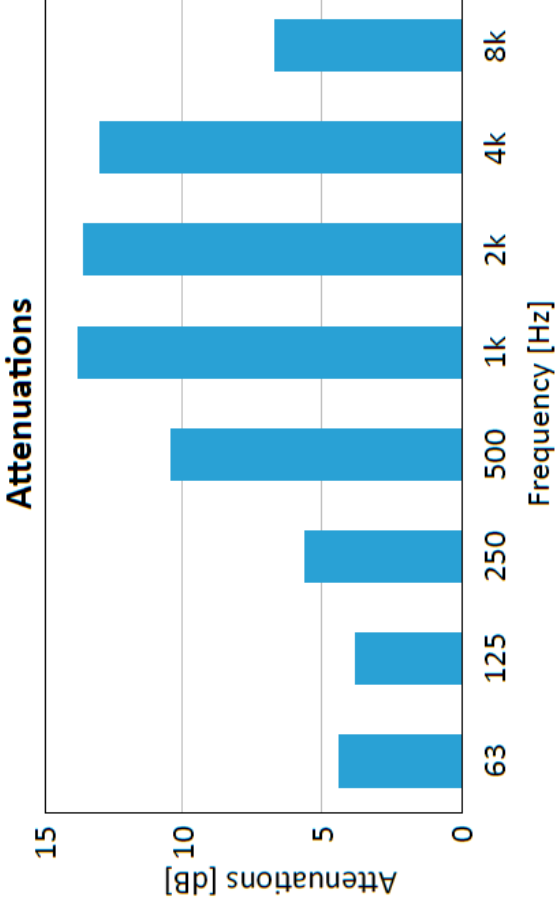
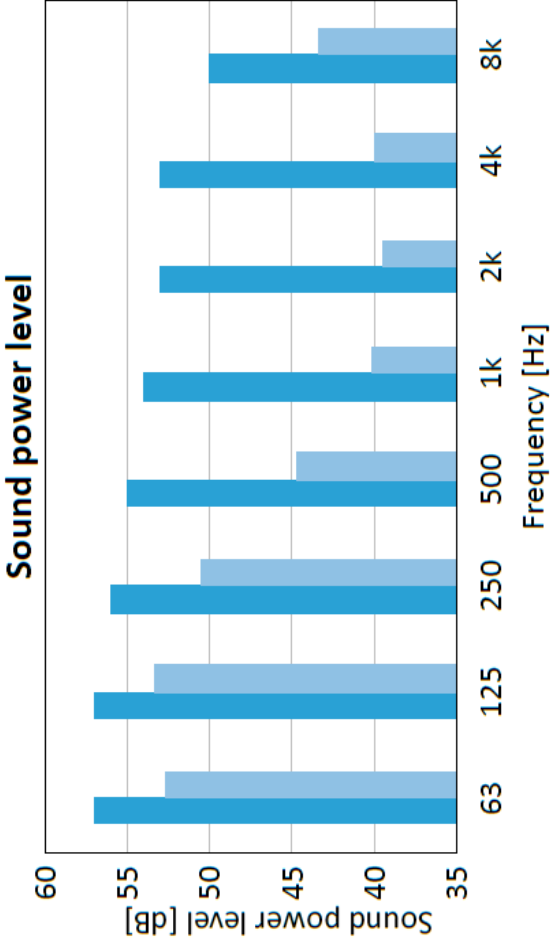
|                  | fm, Hz   |     |     |     |      |      |      |      |            |
|------------------|----------|-----|-----|-----|------|------|------|------|------------|
|                  | 63       | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 | Total, dBA |
|                  | LWA, dBA |     |     |     |      |      |      |      |            |
| v=2 m/s (88m3h)  | 45       | 45  | 41  | 39  | 38   | 35   | 35   | 29   | 43.2       |
| v=4 m/s (177m3h) | 57       | 57  | 56  | 55  | 54   | 53   | 53   | 50   | 60.2       |
| v=6 m/s (265m3h) | 66       | 66  | 65  | 65  | 64   | 63   | 64   | 61   | 70.5       |

**Integrated Silencer efficiency, dBA for KOS-C-125 damper @ v=2 m/s (88m3h)**



|                             |      |      |      |      |      |      |      |      |            |
|-----------------------------|------|------|------|------|------|------|------|------|------------|
| Frequency, Hz               | 63   | 125  | 250  | 500  | 1k   | 2k   | 4k   | 8k   | Total, dBA |
| $L_w$ , before silencer, dB | 42,0 | 42,0 | 41,0 | 39,0 | 38,0 | 35,0 | 35,0 | 29,0 | 43,2       |
| Attenuation, dB             | 3,3  | 2,8  | 4,1  | 7,4  | 9,7  | 8,9  | 8,6  | 3,9  | 7,7        |
| $L_w$ , after silencer, dB  | 38,7 | 39,2 | 36,9 | 31,6 | 28,3 | 26,1 | 26,4 | 25,1 | 35,5       |

**Integrated Silencer efficiency, dBA for KOS-C-125 damper @ v=4 m/s (177m3h)**



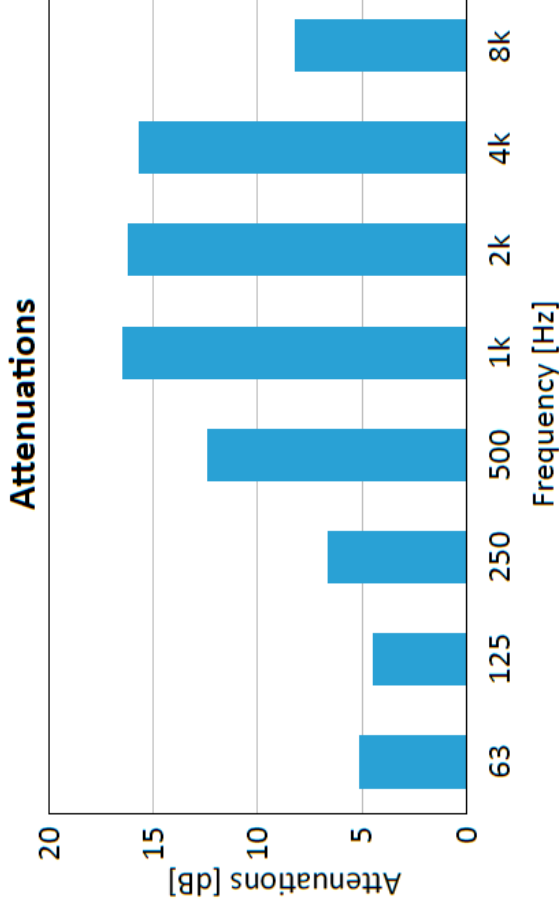
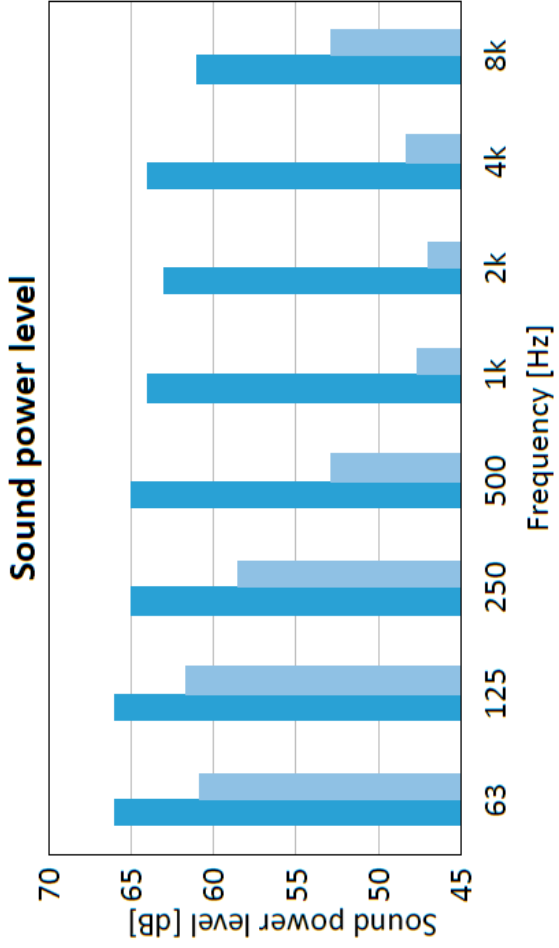
■  $L_w$ , before silencer

■ Attenuation

| Frequency, Hz               | 63   | 125  | 250  | 500  | 1k   | 2k   | 4k   | 8k   | Total, dBA |
|-----------------------------|------|------|------|------|------|------|------|------|------------|
| $L_w$ , before silencer, dB | 57,0 | 57,0 | 56,0 | 55,0 | 54,0 | 53,0 | 53,0 | 50,0 | 60,2       |
| Attenuation, dB             | 4,4  | 3,8  | 5,6  | 10,4 | 13,8 | 13,5 | 13,0 | 6,7  | 10,9       |
| $L_w$ , after silencer, dB  | 52,6 | 53,2 | 50,4 | 44,6 | 40,2 | 39,5 | 40,0 | 43,3 | 49,3       |



**Integrated Silencer efficiency, dBA for KOS-C-125 damper @ v=6 m/s (265m3h)**



$L_w$ , before silencer

Attenuation

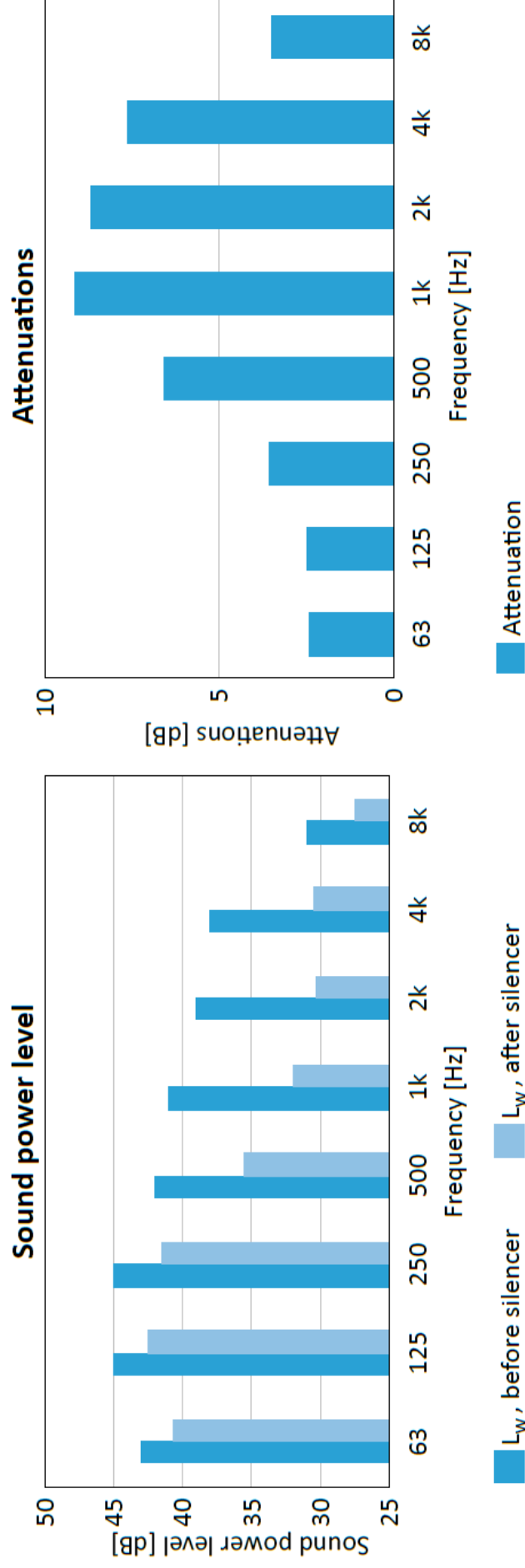
$L_w$ , after silencer

| Frequency, Hz               | 63   | 125  | 250  | 500  | 1k   | 2k   | 4k   | 8k   | Total, dBA |
|-----------------------------|------|------|------|------|------|------|------|------|------------|
| $L_w$ , before silencer, dB | 66,0 | 66,0 | 65,0 | 65,0 | 64,0 | 63,0 | 64,0 | 61,0 | 70,5       |
| Attenuation, dB             | 5,1  | 4,4  | 6,5  | 12,3 | 16,4 | 16,1 | 15,6 | 8,1  | 12,9       |
| $L_w$ , after silencer, dB  | 60,9 | 61,6 | 58,5 | 52,7 | 47,6 | 46,9 | 48,4 | 52,9 | 57,6       |

**Flow generated noise LWA, dBA @ KOS-C-160 damper ( $\alpha=30^\circ$ )**

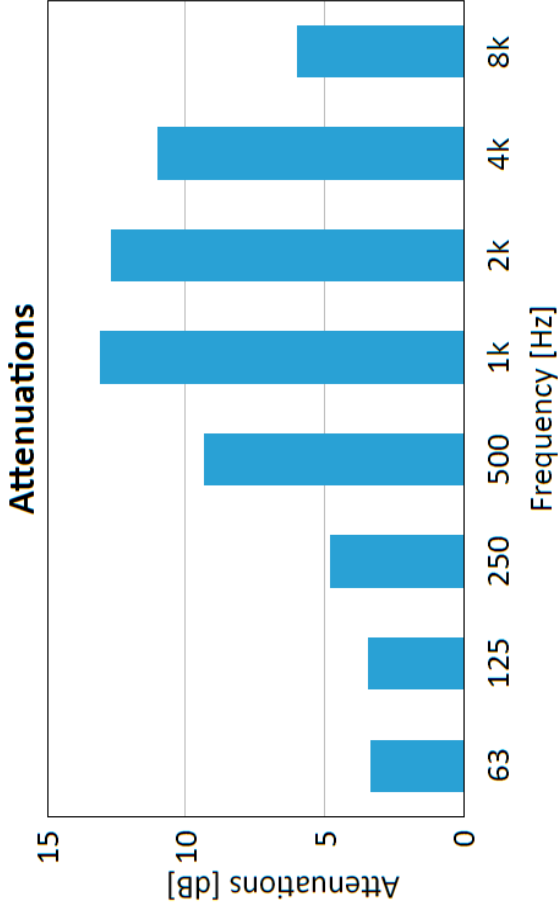
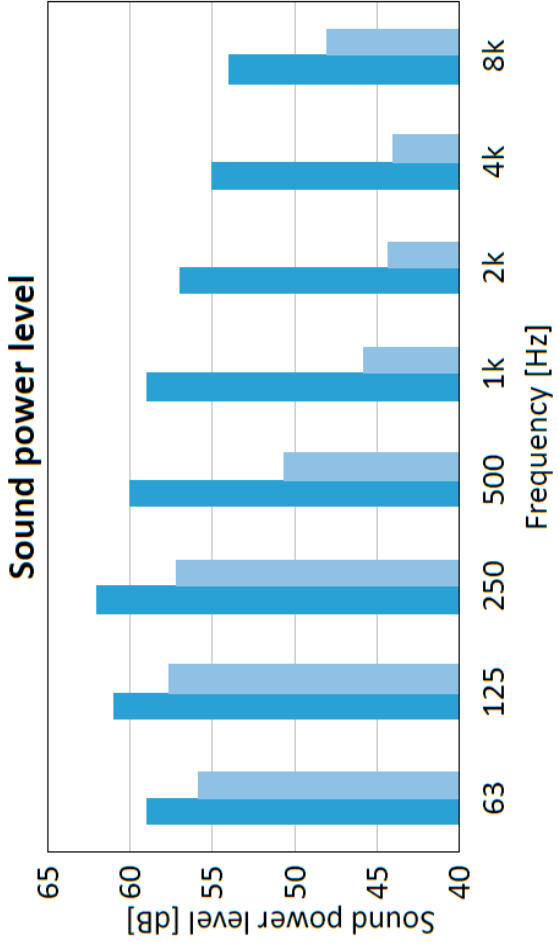
|                  | fm, Hz   |     |     |     |      |      |      |      | Total, dBA |
|------------------|----------|-----|-----|-----|------|------|------|------|------------|
|                  | 63       | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 |            |
|                  | LWA, dBA |     |     |     |      |      |      |      |            |
| v=2 m/s (144m3h) | 43       | 45  | 45  | 42  | 41   | 39   | 38   | 31   | 46.5       |
| v=4 m/s (290m3h) | 59       | 61  | 62  | 60  | 59   | 57   | 55   | 54   | 64.4       |
| v=4 m/s (434m3h) | 68       | 70  | 71  | 70  | 69   | 68   | 66   | 64   | 74.7       |

**Integrated Silencer efficiency, dBA for KOS-C-160 damper @ v=2 m/s (144m3h)**



|                             |      |      |      |      |      |      |      |      |            |
|-----------------------------|------|------|------|------|------|------|------|------|------------|
| Frequency, Hz               | 63   | 125  | 250  | 500  | 1k   | 2k   | 4k   | 8k   | Total, dBA |
| $L_w$ , before silencer, dB | 43,0 | 45,0 | 45,0 | 42,0 | 41,0 | 39,0 | 38,0 | 31,0 | 46,5       |
| Attenuation, dB             | 2,4  | 2,5  | 3,5  | 6,5  | 9,1  | 8,7  | 7,6  | 3,4  | 7,0        |
| $L_w$ , after silencer, dB  | 40,6 | 42,5 | 41,5 | 35,5 | 31,9 | 30,3 | 30,4 | 27,6 | 39,4       |

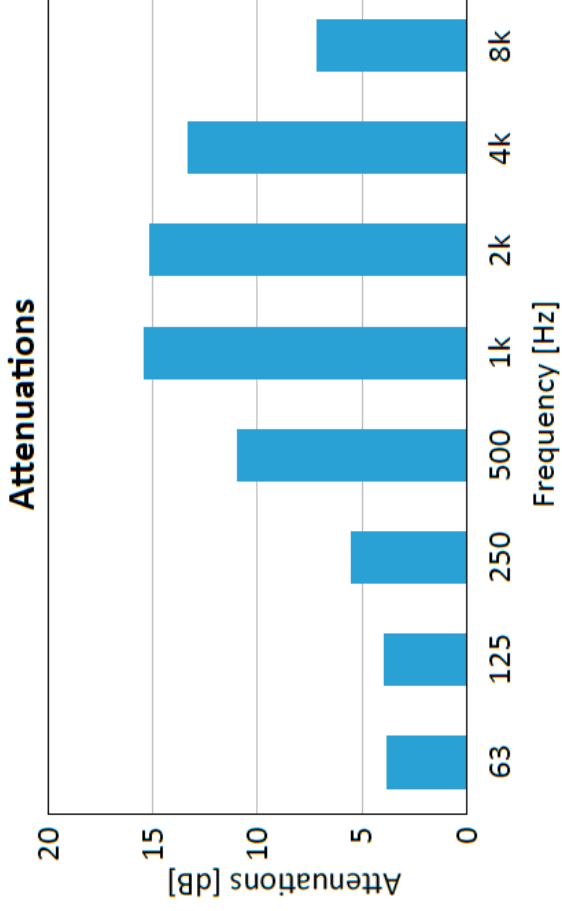
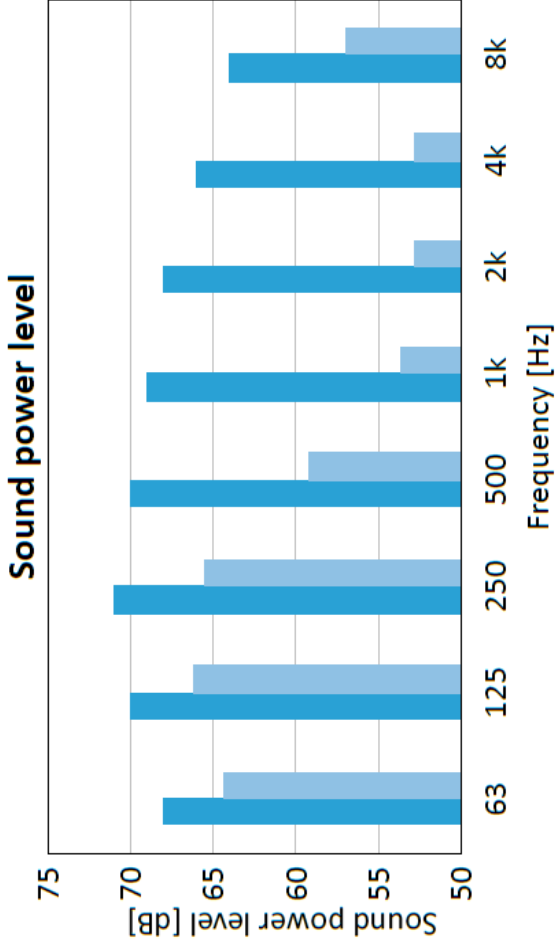
**Integrated Silencer efficiency, dBA for KOS-C-160 damper @ v=4 m/s (290m3h)**



■  $L_w$ , before silencer    ■  $L_w$ , after silencer    ■ Attenuation

| Frequency, Hz               | 63   | 125  | 250  | 500  | 1k   | 2k   | 4k   | 8k   | Total, dBA |
|-----------------------------|------|------|------|------|------|------|------|------|------------|
| $L_w$ , before silencer, dB | 59,0 | 61,0 | 62,0 | 60,0 | 59,0 | 57,0 | 55,0 | 54,0 | 64,4       |
| Attenuation, dB             | 3,3  | 3,4  | 4,8  | 9,3  | 13,1 | 12,7 | 11,0 | 6,0  | 9,7        |
| $L_w$ , after silencer, dB  | 55,7 | 57,6 | 57,2 | 50,7 | 45,9 | 44,3 | 44,0 | 48,0 | 54,7       |

**Integrated Silencer efficiency, dBA for KOS-C-160 damper @ v=4 m/s (434m3h)**



■  $L_w$ , before silencer    ■  $L_w$ , after silencer    ■ Attenuation

| Frequency, Hz               | 63   | 125  | 250  | 500  | 1k   | 2k   | 4k   | 8k   | Total, dBA |
|-----------------------------|------|------|------|------|------|------|------|------|------------|
| $L_w$ , before silencer, dB | 68,0 | 70,0 | 71,0 | 70,0 | 69,0 | 68,0 | 66,0 | 64,0 | 74,7       |
| Attenuation, dB             | 3,8  | 3,9  | 5,5  | 10,9 | 15,3 | 15,1 | 13,2 | 7,1  | 11,6       |
| $L_w$ , after silencer, dB  | 64,2 | 66,1 | 65,5 | 59,1 | 53,7 | 52,9 | 52,8 | 56,9 | 63,2       |