

SPM - Circular damper.

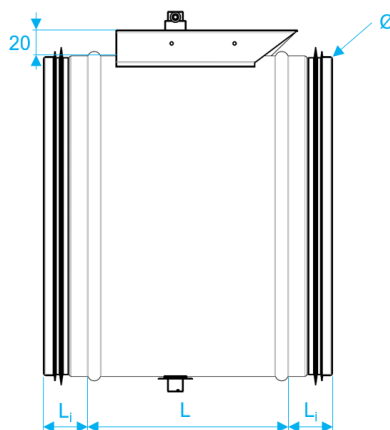
INTRODUCTION

SPM is a throttle damper with a full damper blade. SPM is included in the circular design of control unit DCV-SPb.

FUNCTION

The damper requires low torque, which enables quick and accurate regulation. The motor shelf is adapted for Lindinvent's damper motor. SPM is used together with Lindinvent's sensor for regulating air pressure. In combination with a measuring flange (see SMED or SMID) damper SPM can be used as an alternative to SPMF.

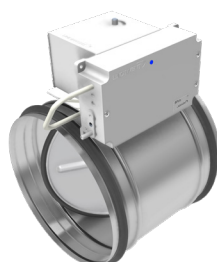
DIMENSIONS (MM) & WEIGHT



Ød	L ₁	L	Weight (kg)
100	33	109	0,5
125	35	109	0,7
160	35	111	1,0
200	35	132	1,2
250	35	159	1,7
315	55	147	2,5
400	55	167	3,7
500	55	213	4,5

Table 1: Dimensions and weight.

Pressure control DCV-SPb:
Pressure controller SPLb is
mounted on damper SPM via
the damper actuator cover.



TECHNICAL SPECIFICATIONS

General

Material

The damper is manufactured in galvanized sheet steel (C3), but can be ordered in stainless acid-resistant steel sheet (C5). For surface treatments, see Materials under Ordering Information. Duct sealing of EPDM rubber and damper blade sealing of silicone rubber.

Size and classification

Sizes: Ø100 – Ø500 mm according to EN 1506:2007
Tightness class 3 according to VVS AMA.
Pressure class A according to VVS AMA.

FC-SPM FOR FUME CUPBOARDS

SPM can be ordered in the version FC-SPM, which is to be used together with fume cupboard controller FCLb.

NOISE GENERATION

$$L_W = L_{WA} + K_0$$

L_W = Sound power level in dB. See table 2 for tolerances.

L_{WA} = Total A-weighted sound power level, dB(A), is read from the sound level diagram for the respective SPM.

K_0 = Correction factor for frequency bands are read from table 3.

Measurements of sound pressure and sound power have been carried out according to ISO 374 and ISO 5135.

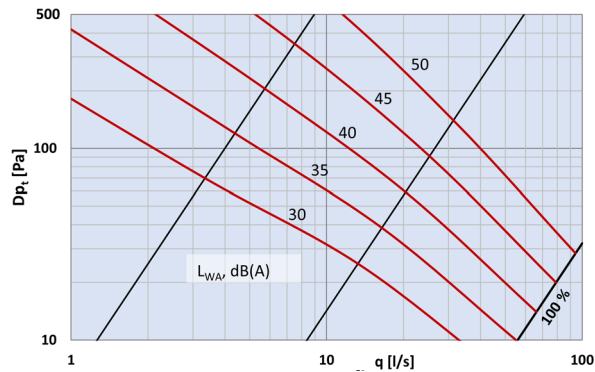


Diagram 1: Total A-weighted sound power level, dB(A) for SPM-100

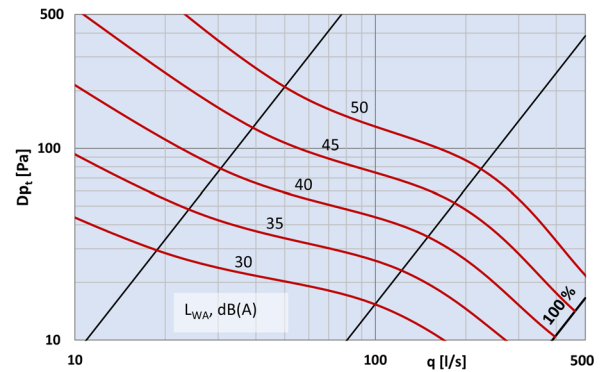


Diagram 5: Total A-weighted sound power level, dB(A) for SPM-250

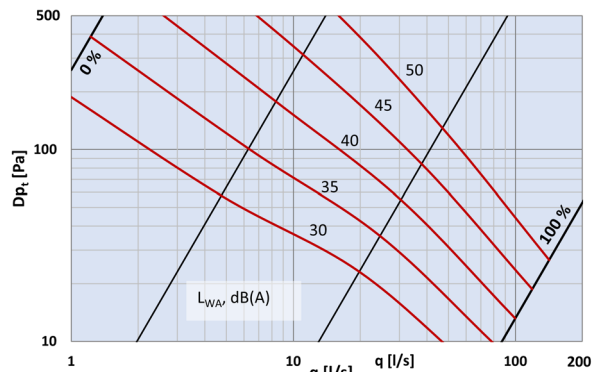


Diagram 2: Total A-weighted sound power level, dB(A) for SPM-125

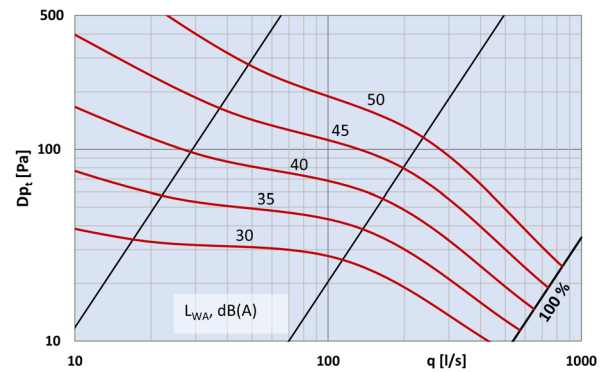


Diagram 6: Total A-weighted sound power level, dB(A) for SPM-315

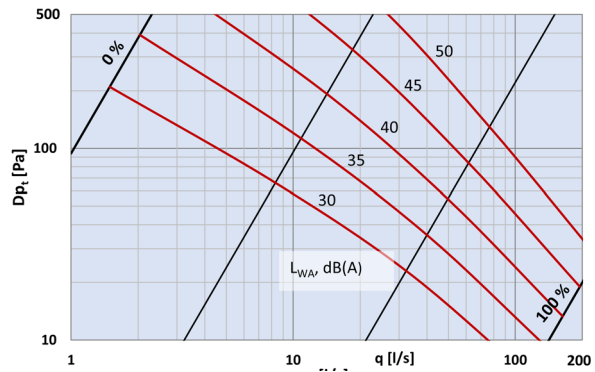


Diagram 3: Total A-weighted sound power level, dB(A) for SPM-160

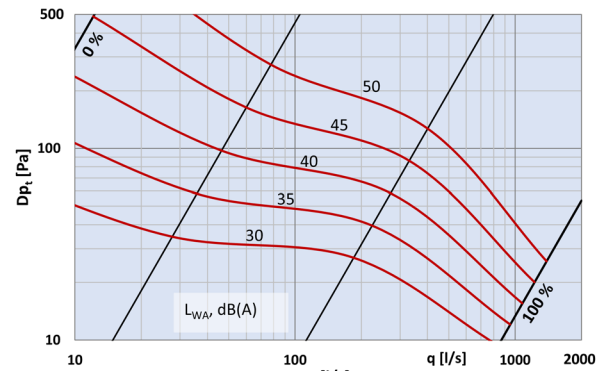


Diagram 7: Total A-weighted sound power level, dB(A) for SPM-400

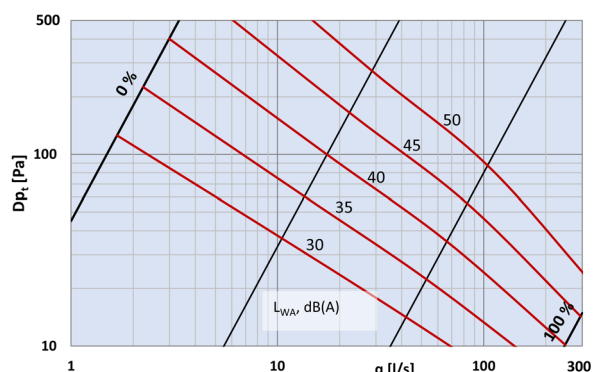


Diagram 4: Total A-weighted sound power level, dB(A) for SPM-200

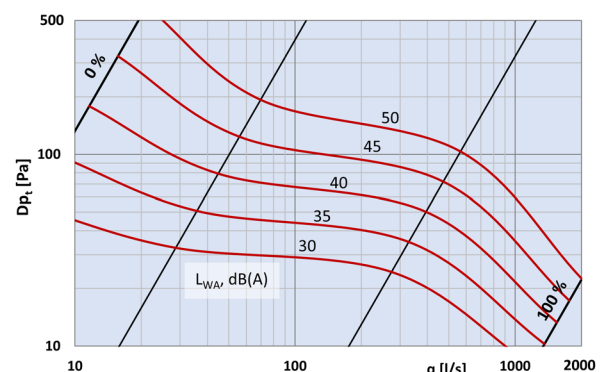


Diagram 8: Total A-weighted sound power level, dB(A) for SPM-500

NOISE GENERATION

$$L_w = L_{WA} + K_0$$

L_w = Sound power level in dB. See table 2 for tolerances.

L_{WA} = Total A-weighted sound power level, dB(A), is read from the sound level diagram for the respective SPM.

K_0 = Correction factor for frequency bands are read from table 3.

Measurements of sound pressure and sound power have been carried out according to ISO 3741 and ISO 5135.

Hz	63	125	250	500	1k	2k	4k	8k
± dB	6	4	3	3	3	3	3	3

Table 2: Tolerance sound power level L_w [dB]

Ød \ Hz	63	125	250	500	1k	2k	4k	8k
100	3	2	1	-2	-6	-11	-19	-24
125	4	2	1	-1	-6	-11	-18	-23
160	4	2	1	-2	-5	-9	-16	-22
200	5	4	2	-3	-5	-10	-16	-23
250	7	6	4	-3	-7	-10	-18	-25
315	8	7	3	-2	-6	-11	-16	-24
400	9	5	3	-2	-6	-12	-15	-24
500	10	5	2	-3	-5	-12	-15	-25

Table 3: Correction factor K_0 [SPM-100 till -500]

ORDER INFORMATION

Circular damper with measuring flange SPM alternatively FC-SPM, Lindinvent AB. When ordering, in addition to the product name, size, material/surface treatment, colour and gloss number are also specified.

Size: 100, 125, 160, 200, 250, 315, 400, 500

Material: Galvanized steel sheet, Epoxy-coated steel sheet or Powder-coated steel sheet. The damper can also be ordered in stainless steel, acid-resistant SS 23 43.

Colour: An epoxy-lacquered damper has RAL9003 as standard with gloss 85, corrosivity class C5. Powder coated has RAL9003 as standard with gloss 30, corrosivity class C4. Other colours and gloss levels can be ordered.



Environmental Product Declaration, EPD, is something many companies are becoming familiar with as they are increasingly required. The application of EPDs has existed for a long time as an EU directive with the aim of tightening the requirements regarding the declaration of various products' environmental impact. You can find our EPDs on EPD Hub, which is one of the international systems for third-party verified EPDs. www.epdhub.com

ADDITIONAL PRODUCT DOCUMENTATION

Download available in the product page for SPMF at lindinvent.com

Document	Comments
Installation instruction	See the installation instruction for DCV-SPb.
Start-up instruction	Not relevant.
Maintenance instruction	Considered to be maintenance free.
External connection diagram	Not relevant.
Building material declaration	Assessed by Byggarubedomningen and Sundahus. EPD registered in June 2022.
Modbus list	Not relevant.
AMA text	Available for download via the product's website.