

# DSO(S) EXHAUST AIR VALVE

AIR MANAGEMENT SYSTEMS

## PRODUCT PROPERTIES

**DSO** is an exhaust valve suitable for houses, offices etc.

- Good adjusting features
- Low noise level
- Good sound attenuation features
- Quick and easy to install
- Airflow easy to measure

## CONSTRUCTION

The **DSO** is manufactured from steel sheet, powder coated. Standard color white (RAL 9010). Other color finishes are available to special order quantities. The body is equipped with cellular plastic gasket to form an airtight seal. Adjustment of the airflow is simple, the inner cone being rotated to the required setting and locked in the position with a single nut. For mounting a mounting-ring **DKT** can be ordered.

Sauna valve **DSO-S** can be opened and closed simply by pushing or pulling the wooden knob. Max. opening is adjusted by moving the retaining ring. Min. opening, which is pre-adjusted into pos. 0 mm, can be adjusted by shortening the plastic tube. Max. working temperature +120°C.

## SOUND POWER LEVEL $L_w$

DSO	CORRECTION $K_{oct}$ (dB)						
	Middle frequency by octave band (Hz)						
	125	250	500	1k	2k	4k	8k
<b>100</b>	-2	1	1	0	-5	-9	-23
<b>125</b>	-3	-2	-1	-4	0	-8	-24
<b>150/160</b>	1	-3	-1	2	-8	-12	-25
<b>200</b>	-1	-3	-4	2	-5	-9	-26
<b>Tol. ±</b>	3	2	2	2	2	2	3

Sound power levels by octave bands are obtained by adding to total sound pressure level  $L_{p10A}$ , dB(A) the corrections  $K_{Oct}$  presented in the table according to the following formula:

$$L_{woct} = L_{p10A} + K_{Oct}$$

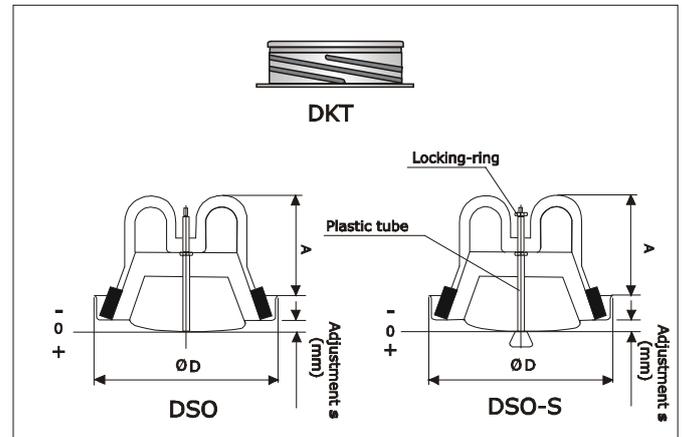
Correction  $K_{Oct}$  is average value in range of use of DSO unit.

DSO	SOUND ATTENUATION $\Delta L$							
	Middle frequency by octave band (Hz)							
	63	125	250	500	1k	2k	4k	8k
<b>100</b>	23	18	14	12	12	14	5	6
<b>125</b>	21	17	12	11	12	11	7	6
<b>150/160</b>	19	14	12	11	11	14	5	7
<b>200</b>	15	13	11	11	13	12	7	7
<b>Tol. ±</b>	6	3	2	2	2	2	2	3

The average sound attenuation  $\Delta L$  from duct to room including the end reflection of the connecting duct in ceiling installation is obtained in the table above.

## DIMENSIONS in mm

DSO	$\varnothing D$	A	W (gr)
100	134	74	300
125	160	85	390
150/160	191	89	570
200	241	107	760
DSO-S	$\varnothing D$	A	W (gr)
100	134	73	310



## REGULATION AND MEASUREMENTS

Regulation of airflow is achieved by turning the control disc to change adjustment dimension  $s$  (mm). The measurement of airflow is made by a pressure difference measurement with a separate measuring tube. Refer to airflow measurement diagrams for information.



## LIABILITY:

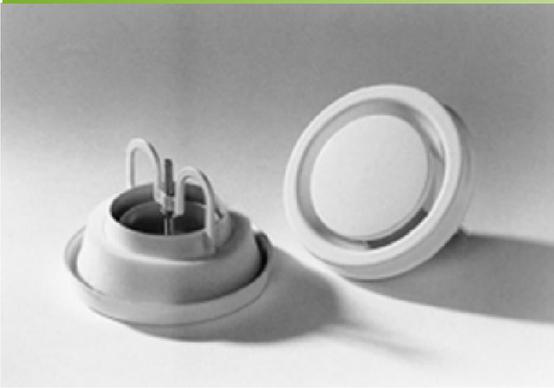
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## PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

## TRADEMARKS:

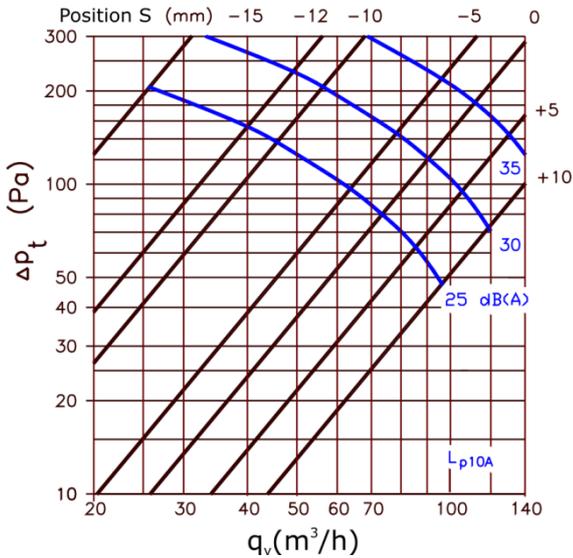
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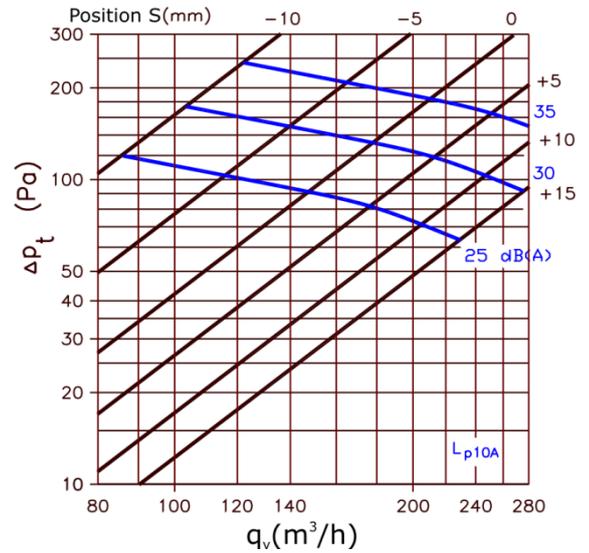
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AIR MANAGEMENT SYSTEMS

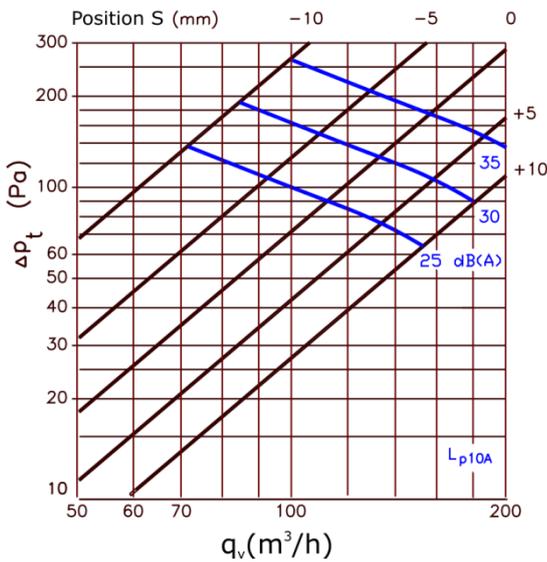
DSO 100 mm



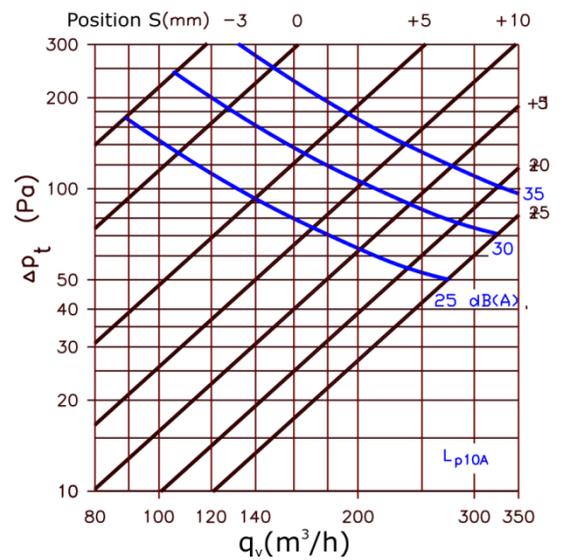
DSO 150/160 mm



DSO 125 mm



DSO 200 mm



## DEFINITIONS

$q_v$	air volume	(m <sup>3</sup> /h)
$\Delta p_t$	total pressure drop	(Pa)
$L_{p10A}$	sound pressure level with 4 dB room attenuation (10 m <sup>2</sup> sab)	[dB(A)]
$L_{Woct}$	sound power level by octave bands	(dB)
$\Delta L$	sound attenuation	(dB)
$K_{oct}$	correction	(dB)

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