



DTVK SUPPLY AIR VALVE

AIR MANAGEMENT SYSTEMS

PRODUCT PROPERTIES

POWDER COATED METAL SUPPLY VALVE

The **DTVK** is a very quiet supply air valve designed for wall mounting. The valve is suitable for use in small premises, such as offices, houses and hotel rooms. The air discharged from the valve is mixed thoroughly with room air thus providing a draught-free air supply.

The air flow is adjustable.

The DTVK-125 has different mounting springs and a cover plate, but the values are the same as DTVK-100.

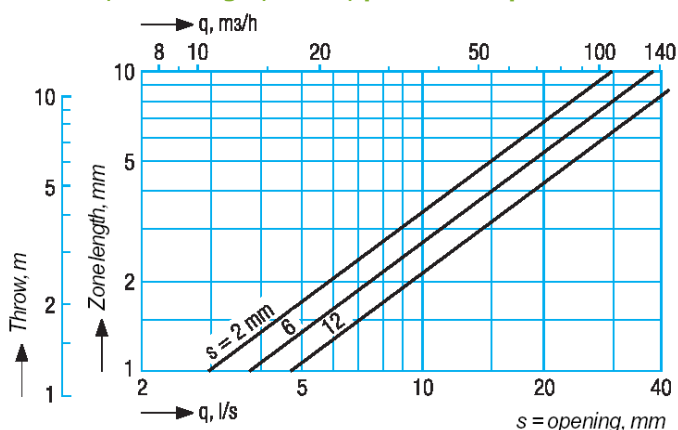
The design of the **DTVK** minimizes the risk of dust deposits forming on the wall surface. The valve is easy to install and easy to keep clean since it has large, smooth surfaces.

The DTVK is made of hot galvanized sheet steel and stove enamelled in white (RAL9003).

DTVK	SOUND ATTENUATION ΔL							
	Middle frequency by octave band (Hz)							
	63	125	250	500	1k	2k	4k	8k
100	24	20	18	12	10	10	10	10
Tol.±	6	3	2	2	2	2	2	3

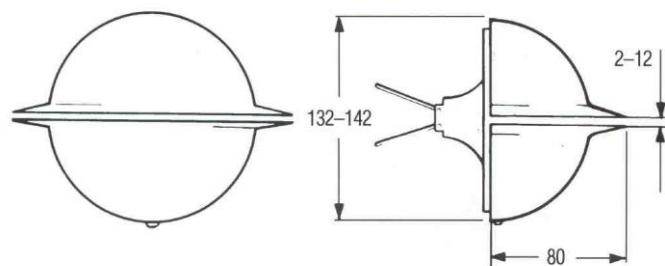
The average sound attenuation ΔL from duct to room including the end reflection of the connecting duct in wall installation, is obtained in the table above.

Air flow, zone length, throw, pressuredrop

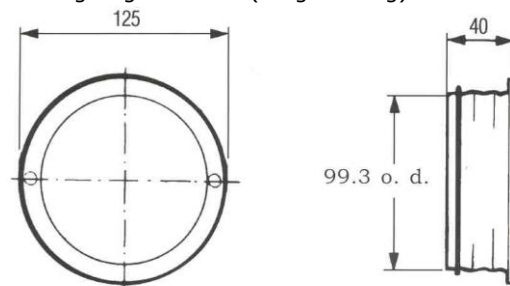


DIMENSIONS (IN MILLIMETRES)

Supply air valve DTVK-100 (weight 0.4kg)



Mounting ring DGEZ-10 (weight 0.1kg)

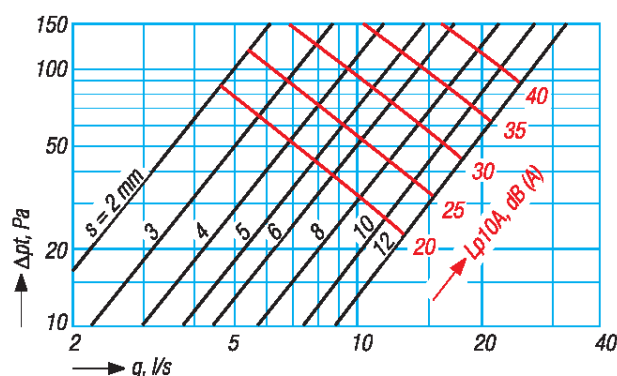


Air stream diffusion

$$B_v = 0.1 \times L_{0.2}$$

$$B_h = 0.6 \times L_{0.2}$$

Where $L_{0.2} = 1.2 \times \text{zone length}$



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.

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AIR MANAGEMENT SYSTEMS

SOUND POWER LEVEL L_w

DTVK	CORECTION K_{oct}							
	Middle frequency by octave band (Hz)							
	63	125	250	500	1k	2k	4k	8k
100	2	-3	-3	0	0	-3	-6	-10
Tol.+/-	6	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:

$$L_{w_{oct}} = L_{p1-A} + K_{oct}$$

Correction K_{oct} is average value in range of use of DTVK unit.

ADJUSTMENT

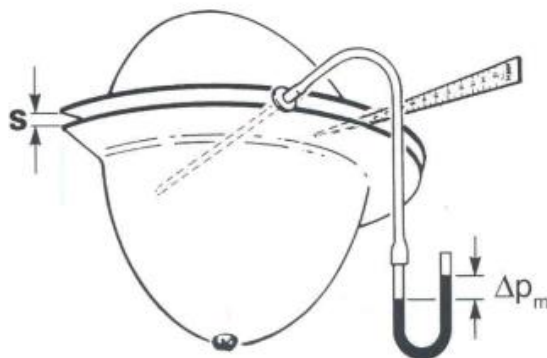
DTVK	S, mm	2	3	4	5	6	8	10	12
100	k	0.48	0.71	0.94	1.2	1.4	1.8	2.2	2.7

$$q = k \sqrt{\Delta p_m} \quad \begin{matrix} (l/s) & (Pa) \end{matrix}$$

$$q = 3.6k \sqrt{\Delta p_m} \quad \begin{matrix} (m^3/h) & (Pa) \end{matrix}$$

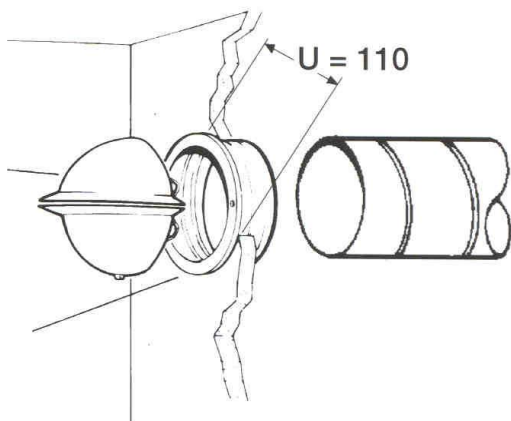
Definitions:

q	air volume	(l/s), (m ³ /h)
Δp_t	total pressure drop	(Pa)
L_{p10A}	sound pressure level with 4dB Room attenuation (10m ² sab)	[dB(A)]
$L_{w_{oct}}$	sound power level	(dB)
ΔL	sound attenuation	(dB)
K_{oct}	correction	(dB)
$L_{0.2}$	throw corresponding 0.2m/s Final velocity	(m)



INSTALLATION

DTVK connected to a mounting ring



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