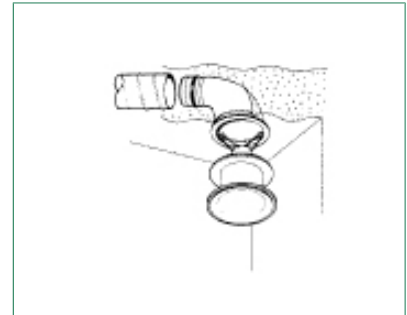
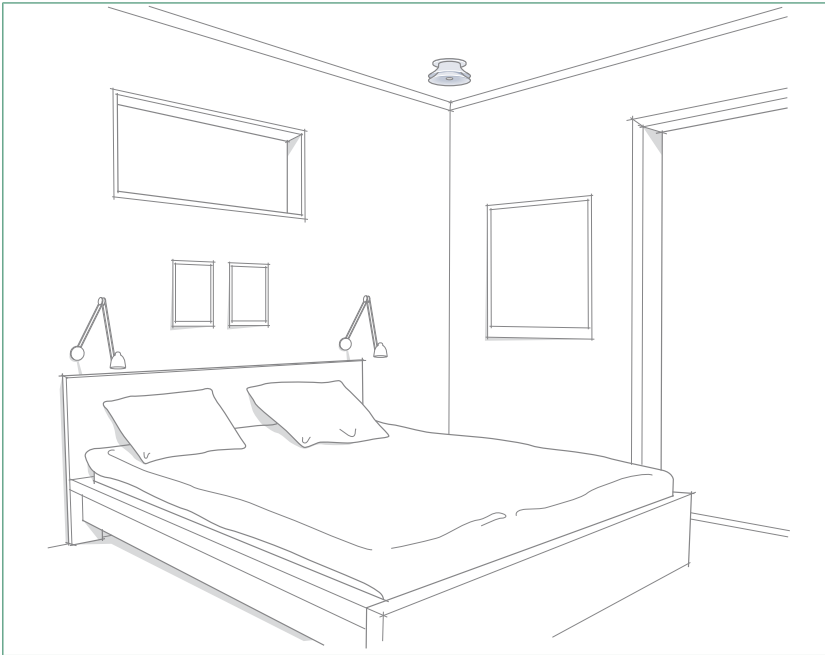


CTVB Supply air valve



The CTVB is a supply air valve for ceiling mounting in offices, houses and hotel rooms. The air discharged from the valve is mixed thoroughly with the room air thus providing a draught-free air supply.

Quick Selection

Valve	Connection	Air flow range l/s at sound level		
		25 dB	30 dB	35 dB
CTVB-100	100	21	27	32
CTVB-125	125	28	33	42
CTVB-160	160	42	51	61

Specifications

- Supply air valve intended for installation in the ceiling
- Manufactured of steel

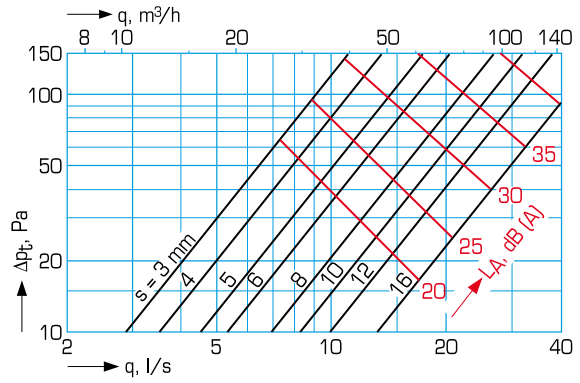
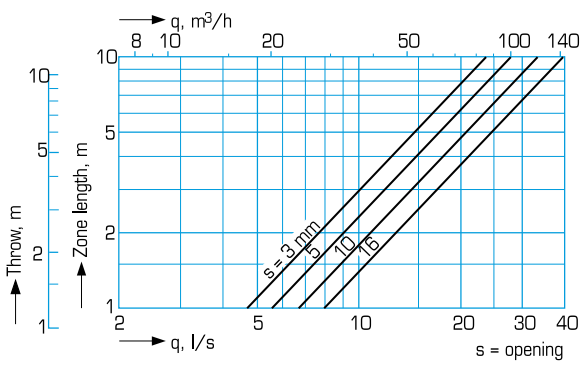
Product code example

Ceiling valve CTVB-100

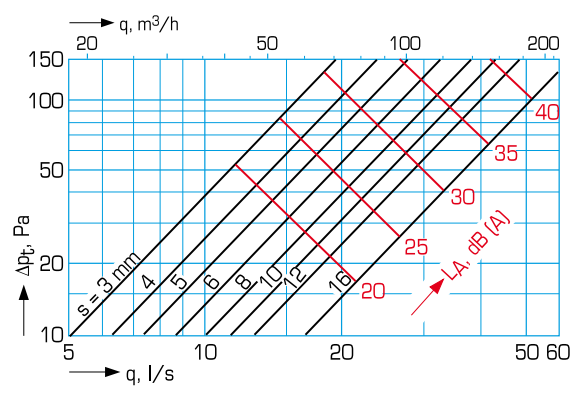
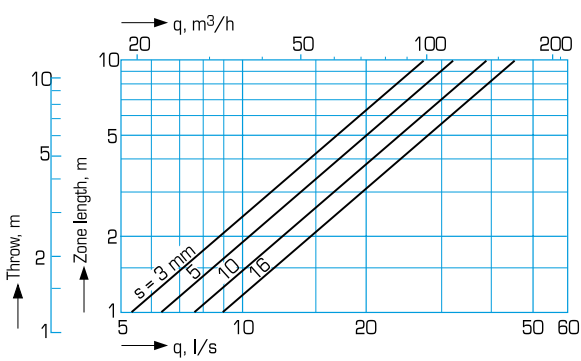
Mounting ring KGEZ-05-100

Selection diagrams

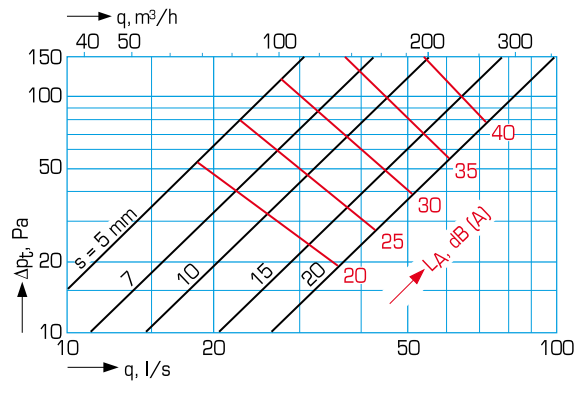
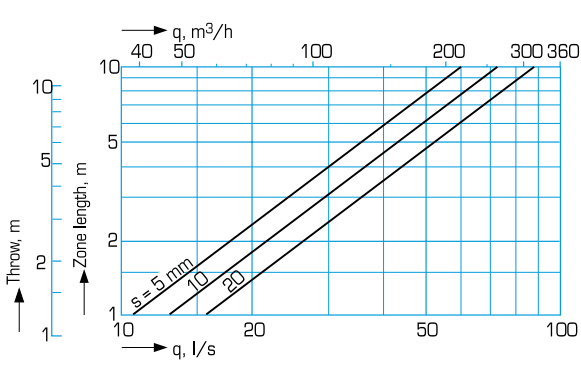
CTVB-100



CTVB-125



CTVB-160



Sound power level

CTVB	Connection	63	Correction of sound level in dB at octave bands, middle frequency, Hz						
			125	250	500	1000	2000	4000	8000
100	straight duct	2	-3	-3	0	-1	-1	-9	-16
100	angle duct	4	-2	-3	-1	-1	-1	-7	-14
125	straight duct	3	2	1	1	0	-3	-9	-12
160	straight duct	5	6	2	2	0	-5	-10	-5

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:

$$L_{W_{oct}} = L_{p10A} + K_{oct}$$

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

Note! In installations when CTVB is mounted with with angle duct KGEZ-43 the sound power level will increase by 3 dB(A).

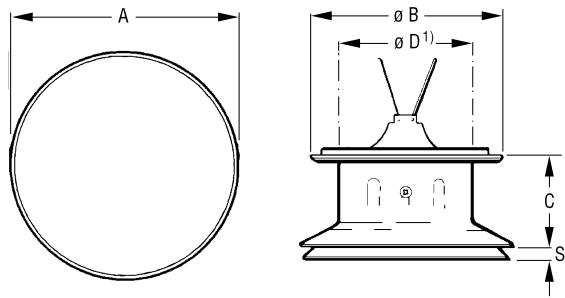
Sound attenuation

CTVB	Connection	63	Sound attenuation in dB at octave bands, middle frequency, Hz						
			125	250	500	1000	2000	4000	8000
100	straight duct	25	22	17	13	12	11	11	11
100	angle duct	27	23	18	14	12	11	11	12
125	straight duct	25	20	15	12	11	9	9	9
160	straight duct	26	17	13	12	11	7	7	8
Tolerance ±		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 ceiling installation, is obtained in the table above.

Dimensions and weights

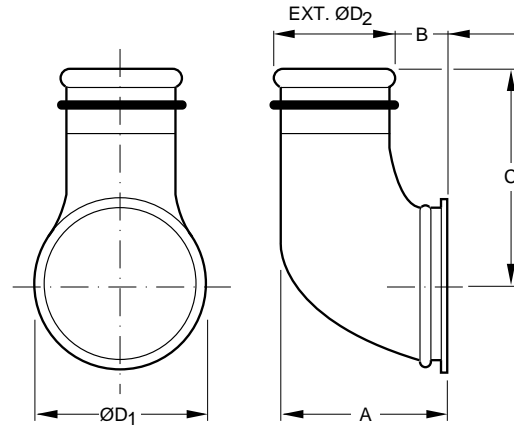
Supply air valve CTVB



Size	A [mm]	B [mm]	C [mm]	D ¹⁾ [mm]	Smin [mm]	Smax [mm]	Weight [kg]
100	155	140	65	100	3	16	0.45
125	185	165	70	125	3	16	0.58
160	226	200	78	160	3	20	0.93

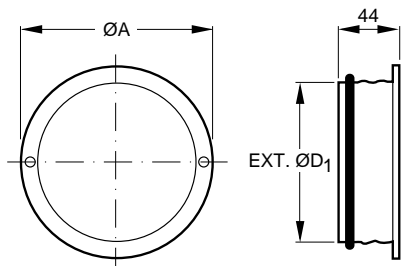
¹⁾ Nominal connection diameter

Angle duct KGEZ-43



Size	A [mm]	B [mm]	C [mm]	D1 [mm]	D2 [mm]	Weight [kg]
100 - 080	120	39	148	125	79.3	0.4
100 - 100	140	39	98	125	99.3	0.4
125 - 080	115	36	162	131	79.3	0.4
125 - 100	146	45	120	140	99.3	0.5

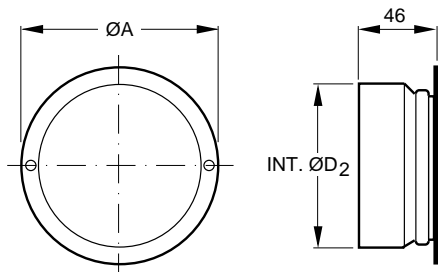
Mountin ring KGEZ-01, insertion connection



Size	A [mm]	D1 [mm]	Hole ¹⁾ [mm]	Weight [kg]
100	125	99.3	110	0.10
125	150	124.3	135	0.10
160	185	159.3	170	0.16

¹⁾ Tolerance ± 5 mm

Mounting ring KGEZ-05, fit-on connection



Size	A [mm]	D2 [mm]	Hole ¹⁾ [mm]	Weight [kg]
100	125	100	110	0.10
125	150	125	135	0.10
160	185	160	170	0.16

¹⁾ Tolerance ± 5 mm

Air stream diffusion

$$b_v = 0,1 \times l_{0,2}$$

$$b_h = 1,0 \times l_{0,2}$$

where $l_{0,2} = 1,2 \times$ zone length

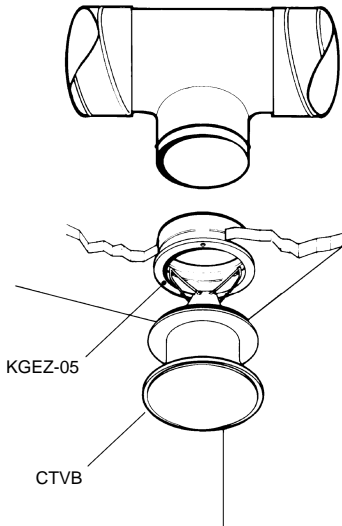
Packaging

The ceiling valve is delivered as standard in a cardboard box as follows:

Size	Quantity	Weight, kg	Volume, m ³
CTVB-100	20	9	0,04
CTVB-125	20	13	0,08
CTVB-160	20	20	0,14

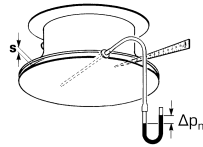
Installation

Supply air valve connected to a mounting ring



Adjustment

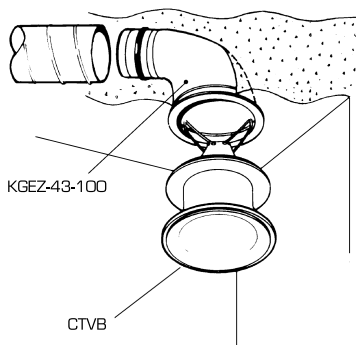
s mm	100	k	
		125	160
3	0,9	-	-
4	1,2	2,0	-
5	1,4	2,3	2,6
6	1,7	2,6	3,1
7	1,9	3,0	3,5
8	2,1	3,3	3,9
10	2,6	4,0	4,6
12	3,1	4,7	5,4
16	4,1	6,0	6,9
20	-	-	8,3



$$q = k \sqrt{\Delta p_m}$$

(l/s) (Pa)

Supply air valve connected to an angle duct



General

Application and function

The CTVB is a supply air valve for one-way air diffusion and ceiling 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 the room air thus providing a draught-free air supply. The direction of air diffusion and the air flow are adjustable.

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

Material and surface finish

The valve is made from hot-dip galvanized steel sheet. Visible parts are powder coated for a high surface finish and good impact and scratch resistance.

Standard colour white RAL 9010. Other colours on request.

Instructions

Directions for installation, adjustment and care are set out in detail in our technical instruction which accompanies each product. The instruction is also accessible on www.flaktgroup.com.

Technical data and dimensioning

For complete dimensioning details, please see FläktGroup product selection program. Contact our nearest sales office for further information.

Descriptive text

Ceiling valve CTVB manufactured by FläktGroup, for example in size 100, with mounting ring/angle duct.

Product code

Supply air valve

CTVB-aaa

Supply air valve, special colour

CTVB-aaa-E

Size (aaa)

100, 125, 160

Accessories and spare parts

Accessories

Mounting ring - insertion connection **KGEZ-01-bbb**

Mounting ring - fit-on connection **KGEZ-05-bbb**

Size (bbb)
100, 125, 160

Angle duct for CTVB-100, 125 **KGEZ-43-bbb-ccc**

Size (bbb-ccc)
Connection diameter in mm
to valve – to duct:
100-080, 100-100, 125-080, 125-100

Spare parts

Seal **COGZ-aaa-6**

Spring **COSZ-aaa-1**

Size (aaa)
100, 125, 160