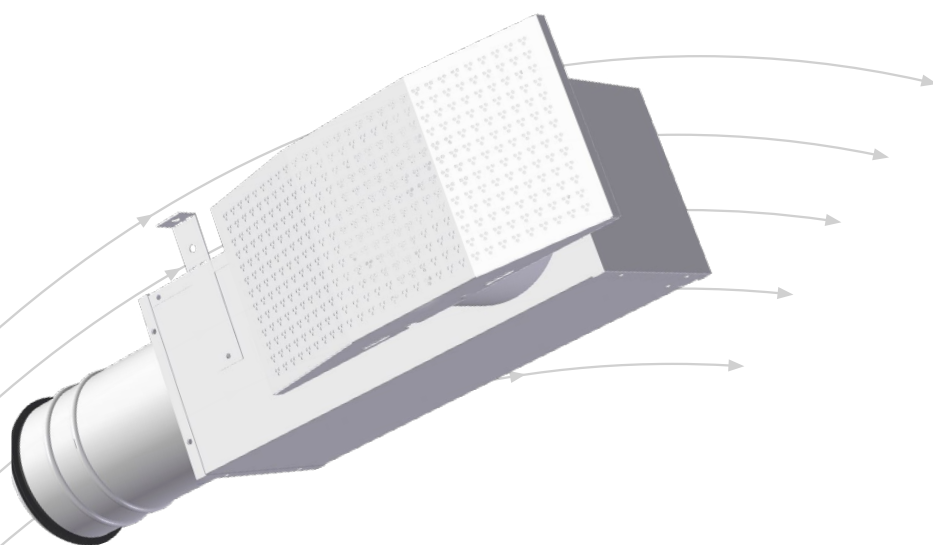


JBV

Rectangular inlet air diffuser



- Suitable for home ventilation
- Easy to install
- Detachable front face
- Documented with BVK plenum box
- Polyester sound insulation in box

TROX[®] TECHNİK

 **Auranor**

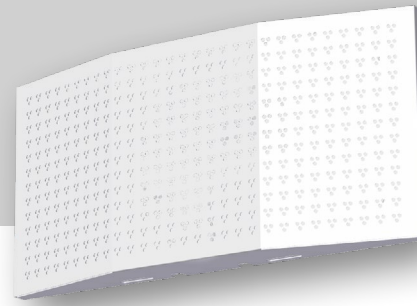
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JBV



APPLICATION

These air diffusers are designed for comfort ventilation in all types of homes where balanced ventilation is installed, e.g. new builds or rehabilitated blocks of flats. They are designed for standard wall thicknesses with steel joists and a single sheet of plasterboard on both sides.

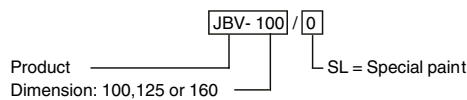
DESIGN

The rectangular JBV air diffuser consists of two parts: the mounting frame, with a spigot for the supply air duct, and a removable front face. No tools are required to install the diffuser face, and it can be easily removed for cleaning, etc. The diffuser face has separate grooves for control wires and measuring tubes.

MATERIALS AND FINISH

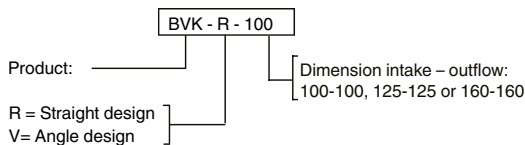
The diffuser's parts are made of galvanised sheet steel. The surface is painted standard white RAL 9003 - gloss 30.

ORDER CODE, JBV



Example:
JBV-100/0
Explanation:
JBV diffuser dimension Ø100, standard paint RAL 9003 - gloss 30.

ORDER CODE, BVK



Example:
BVK-R-100
Explanation:
BVK box with Ø100 intake and Ø100 outflow.

DIMENSIONS AND WEIGHT, JBV

Dim	D	H	Weight [kg]
100	99	147	0,7
125	124	147	0,8
160	159	202	0,9

Table 1

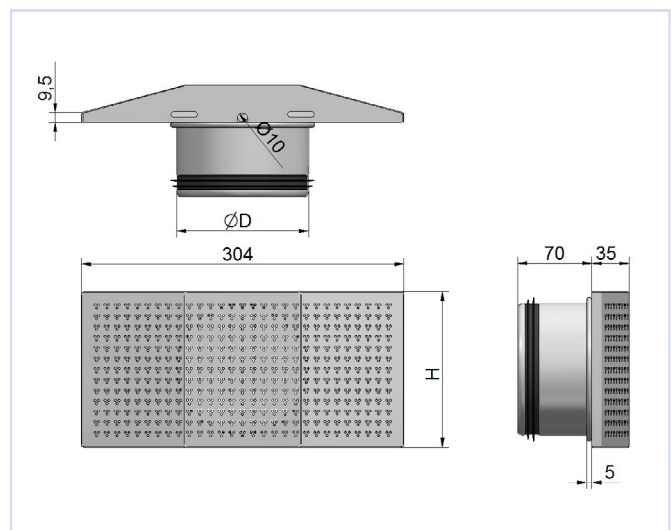
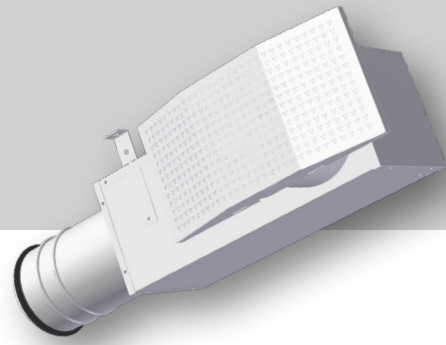


Figure 1, JBV

JBV with BVK box



APPLICATION

A BVK plenum box is recommended because it provides better sound attenuation and control and measuring options. The BVK is a rectangular box with detachable sound insulation and a damper which provides access to the connecting duct. The damper can be locked in any position required.

DESIGN

The BVK comes in two designs, straight and angled. The sound insulation effectively dampens sound and releases no material fibres to the surroundings.

The insulation can be removed for cleaning. The plenum box features a wire operated damper and measuring outlet for adjustment.

MATERIALS AND FINISH

The BVK is supplied with a galvanised finish and polyester sound insulation. The spigot has a rubber EPDM seal.

QUICK PICK, JBV with BVK-R box

JBV Dim	BVK-R Dim	[m ³ /h]		
		20dB	25dB	30dB
100	100-100	65	79	90
125	125-125	94	108	122
160	160-160	130	151	162

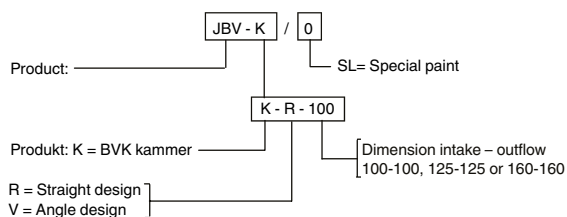
Table 2: the table shows the air flow rate at the stated sound power level and 30Pa total pressure.

QUICK PICK, JBV with BVK-V box

JBV Dim	BVK-V Dim	[m ³ /h]		
		20dB	25dB	30dB
100	100-100	61	76	86
125	125-125	83	94	108
160	160-160	115	133	155

Table 3: the table shows the air flow rate at the stated sound power level and 30Pa total pressure.

ORDER CODE, JBV with BVK



Example:
JBV-K-R-100/0
Explanation:
JBV diffuser with accompanying BVK box, box with intake dimension Ø100 and outflow/diffuser dimension Ø100. Diffuser painted with standard RAL 9003 - gloss 30.

DIMENSIONS AND WEIGHT, BVK

Dim.	D	DA	B	H	C	Weight [kg]
100-100	99	102	154	154	116	2,9
125-125	124	127	154	154	116	3,1
160-160	159	162	189	189	132	3,3

Table 4

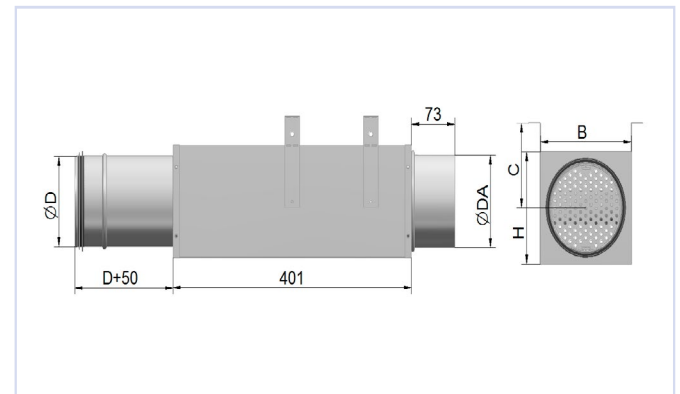


Figure 2, BVK-R

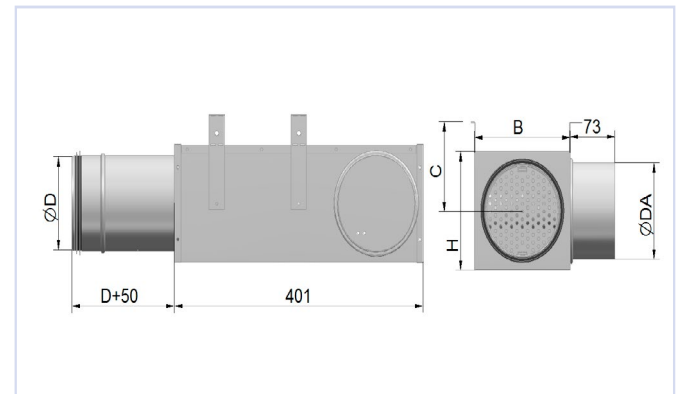


Figure 3, BVK-V

JBV

ACOUSTIC DOCUMENTATION

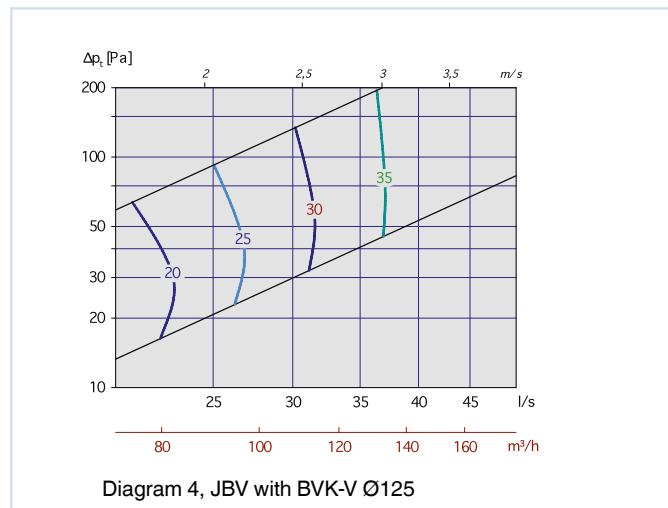
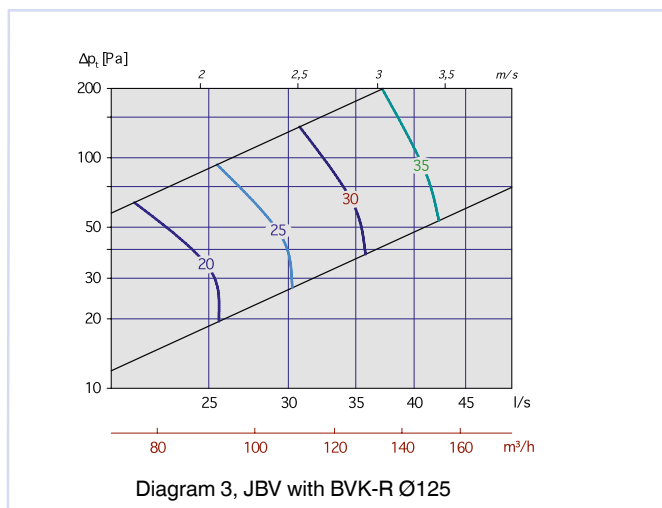
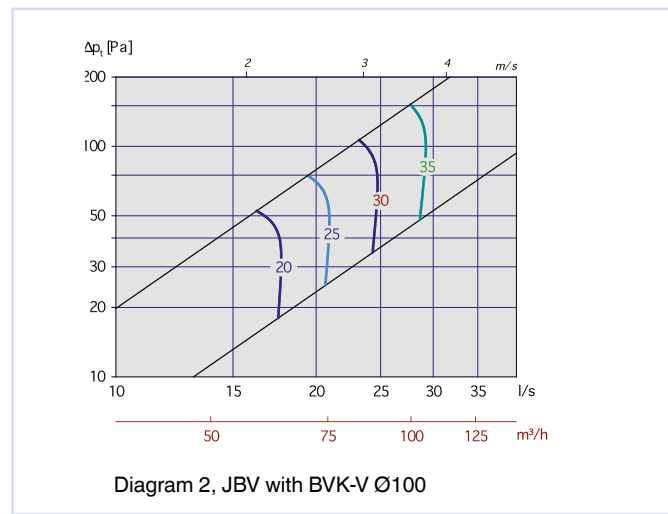
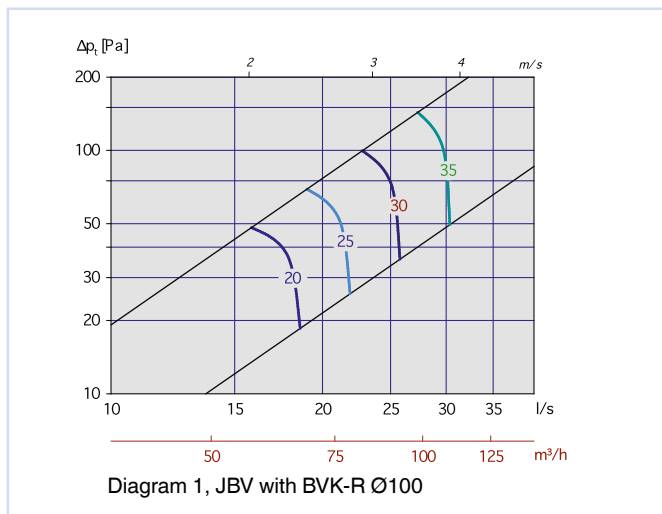
The diagram provides a summary of the A-weighted sound power level from diffuser, L_{WA} . The correction factors in table 5 will be used to calculate the emitted frequency-distributed sound power level, $L_W = L_{WA} + KO$. A room with absorption equivalent to 10 m² Sabine will have a sound pressure level which is 4 dB below the sound power level emitted.

Acoustic properties are measured in accordance with international standards for precision measurements of sound pressure, ISO 3741 and 5135.

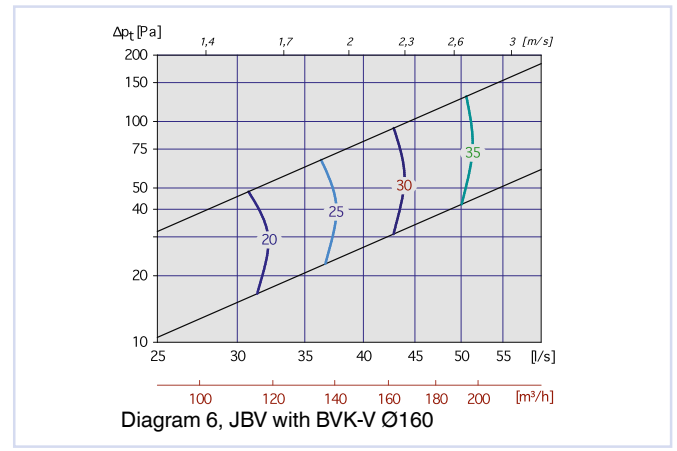
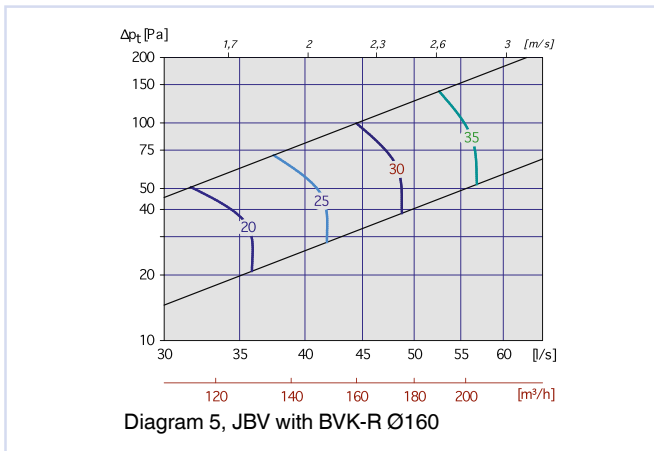
Table 5 provides the correction factors (KO) for conversion to the diffuser's emitted sound power level to ducts in the various frequency bands. Correction factors are provided for both open and closed damper, i.e. for the right and left pressure loss curve in the diagram, respectively. Correction factors for intermediate points are interpolated between these. The sound power for different frequencies is calculated using the following formula:

$$L_W = L_{WA} + KO \text{ der } L_{WA} \text{ is recorded dB(A) level in the diagram.}$$

CALCULATION DIAGRAM



JBV



Correction factor [KO] JBV with BVK box

JBV	BVK-box			KO [dB]							
	Dim	Type	Dim	63	125	250	500	1k	2k	4k	8k
100	BVK-R	100-100	63	-2	-5	-5	-2	0	-1	-11	-18
100	BVK-V	100-100	63	1	-2	-3	-2	0	-2	-12	-16
125	BVK-R	125-125	125	6	-6	-6	-2	0	-2	-10	-17
125	BVK-V	125-125	125	5	-3	-5	-1	1	-3	-11	-17
160	BVK-R	160-160	160	5	-3	-5	-5	-5	-6	-9	-22
160	BVK-V	160-160	160	5	-5	-5	-3	-5	-8	-11	-22

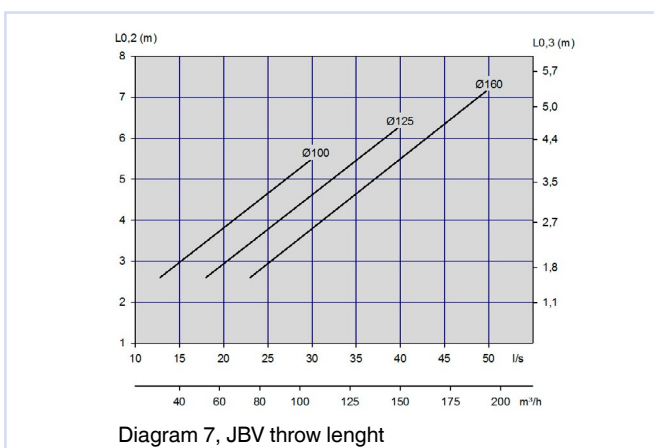
Table 5

Static sound attenuation incl. end reflection JBV with BVK box

JBV	BVK-box			Self-attenuating[dB]							
	Dim	Type	Dim	63	125	250	500	1k	2k	4k	8k
100	BVK-R	100-100	63	19	20	15	12	6	11	12	17
100	BVK-V	100-100	63	17	18	17	15	13	17	18	15
125	BVK-R	125-125	125	20	16	13	10	6	9	10	15
125	BVK-V	125-125	125	18	14	12	12	10	14	15	16
160	BVK-R	160-160	160	16	11	10	9	9	11	13	15
160	BVK-V	160-160	160	15	12	11	10	9	13	14	15

Table 6

THROW LENGTH



MOUNTING

The JBV diffuser has a rubber seal and is easily installed in the connection and attached with screws in the diffuser's mounting frame. The BVK box has mounting brackets with slots that are adjusted and attached in the most appropriate way.

ADJUSTMENT

The diffuser face must be attached during adjustment. The measuring tube and adjustment wire are extracted through the groove in the face. The damper is secured by using a clamping nut on the wire, tighten the clamping nut properly so the damper not change position. K-factors for calculating air volume are on the label in the diffuser, or in our adjustment guide on our website www.trox.no.

MAINTENANCE

The diffuser face and sound insulation can easily be removed for cleaning.

ENVIRONMENT

Inquiries regarding the product declaration can be directed to our sales team, or information can be found on our website: www.trox.no