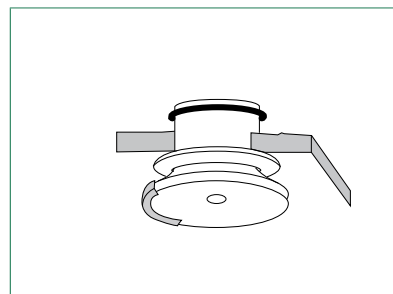
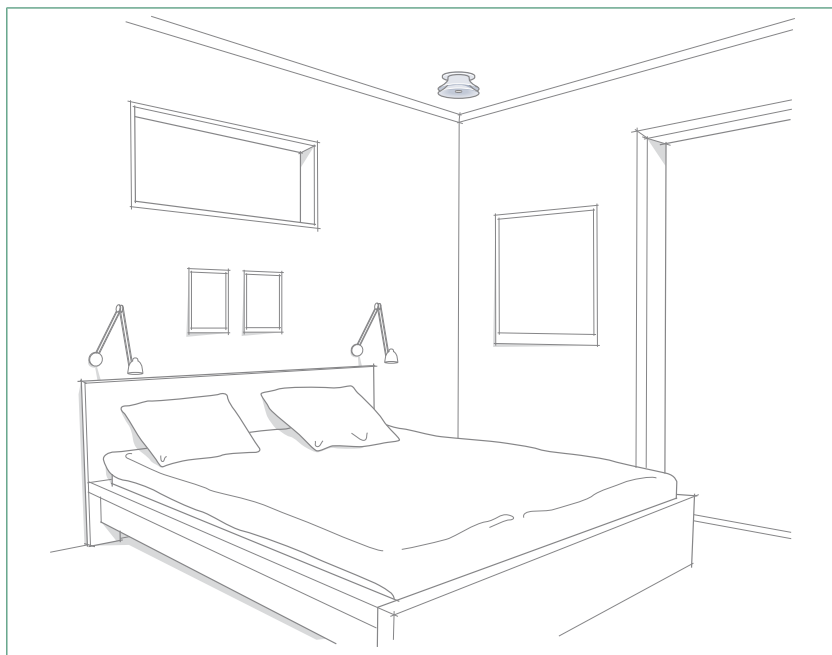


KTI Supply air valve



KTI is a supply air valve suitable for houses, apartments and offices. It has a wide air volume range between 5 - 100 l/s. The valve is quick and easy to install in the duct without a need for a mounting ring. KTI can be installed either off or close to the installing surface. KTI has three different diffusion pattern alternatives.

Quick Selection

KTI Size	Connection alternative	Air flow range l/s at sound level		
		25 dB	30 dB	35 dB
KTI-100-C	180°	19	24	29
	270°	24	39	34
	360°	29	34	39
KTI-125-C	180°	30	36	44
	270°	40	46	56
	360°	46	56	68
KTI-160-C	180°	45	55	68
	270°	47	68	64
	360°	63	78	95
KTI-200-C	180°	68	80	100
	270°	85	100	120
	360°	90	110	139

Specifications

- CleanVent coating as standard.
- Wide air volume range.
- Adjustable diffusion patterns.
- Four sizes.

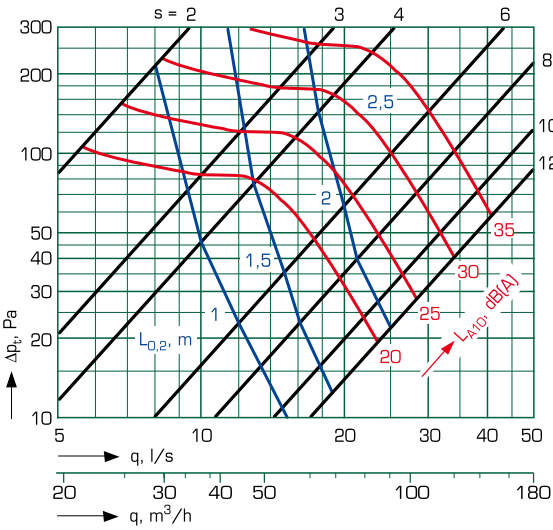
Product code example

Supply air valve KTI-125-C

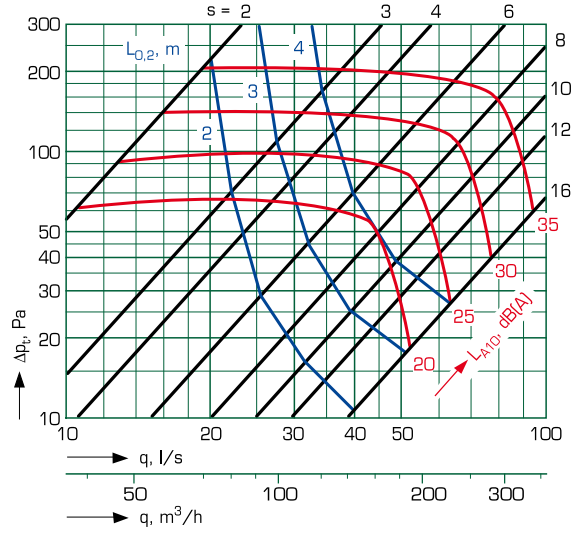
Selection diagrams

Valve with 360° blow

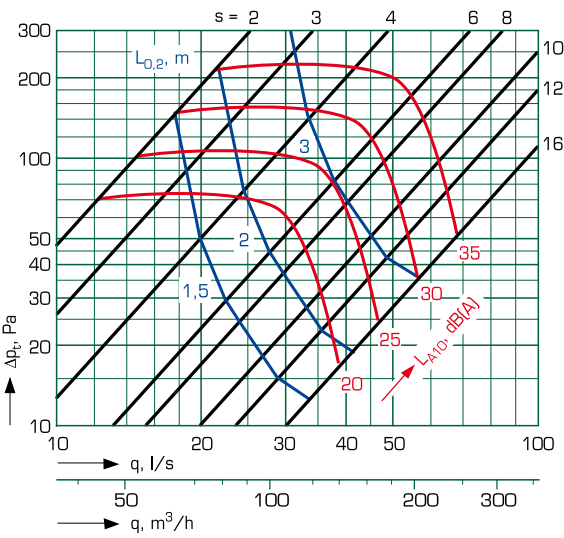
KTI-100-C



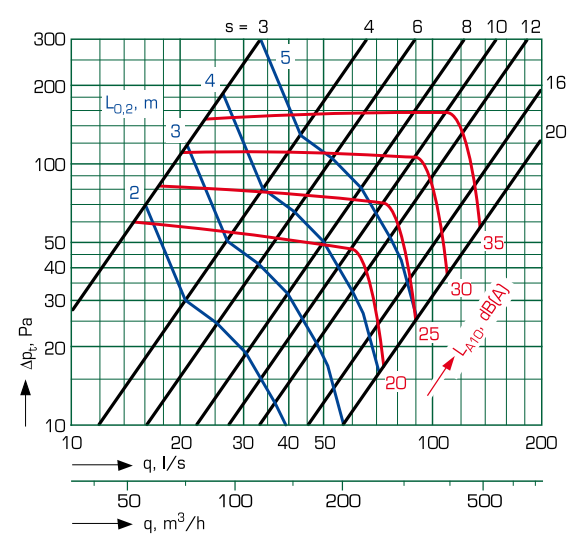
KTI-160-C



KTI-125-C



KTI-200-C

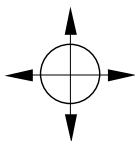


Width, length and height of diffusion pattern

Adjustment	$\Delta t, ^\circ\text{C}$	b, m	$L_{0,2}(\Delta t), \text{m}$	h, mm
360°	0	-	1	$9 \times s + 75$
	-8	-	$0,7 \times L_{0,2}$	$11 \times s + 80$

s = adjustment position, mm

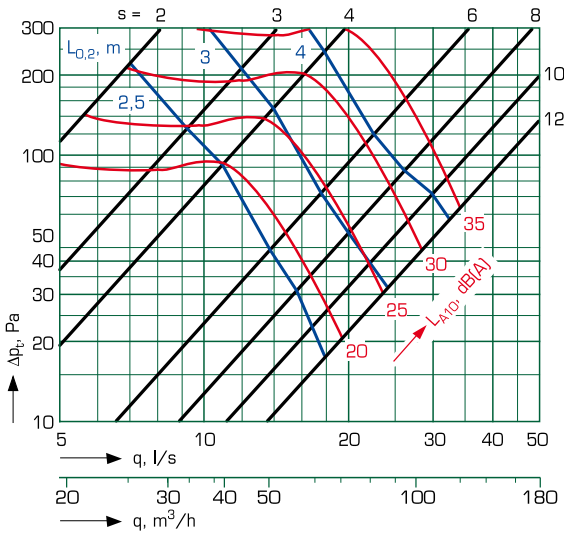
$L_{0,2}$ = throw, m



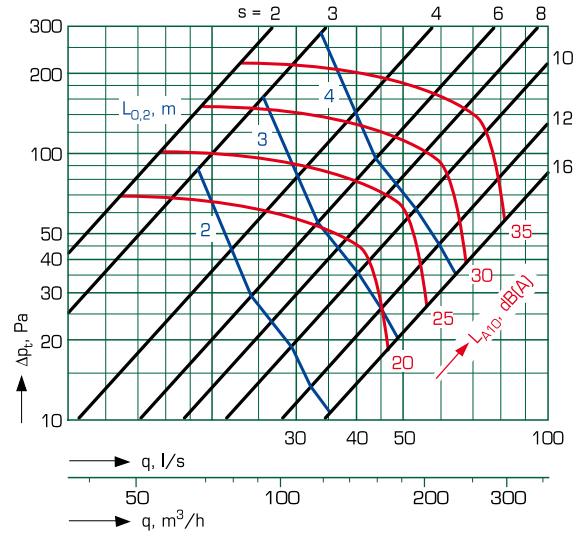
Selection diagrams

Valve with 270° blow

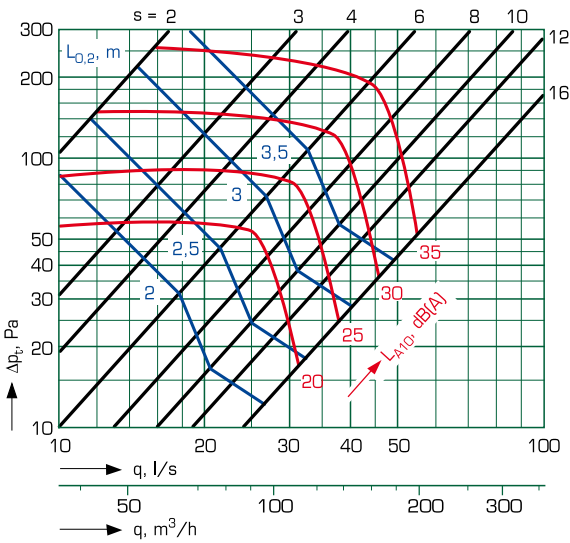
KTI-100-C



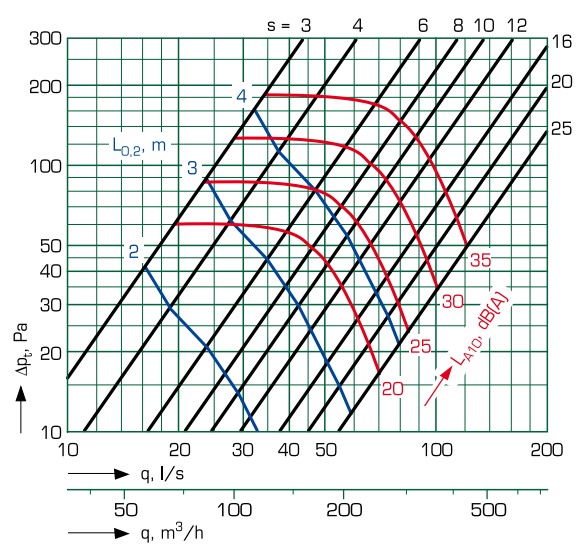
KTI-160-C



KTI-125-C



KTI-200-C

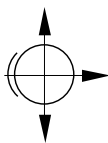


Width, length and height of diffusion pattern

Adjustment	$\Delta t, ^\circ\text{C}$	b, m	$L_{0,2}(\Delta t), \text{m}$	h, mm
270°	0	$2 \times L_{0,2}$	1	$9 \times s + 75$
	-8	$2 \times L_{0,2}$	$0,9 \times L_{0,2}$	$11 \times s + 80$

s = adjustment position, mm

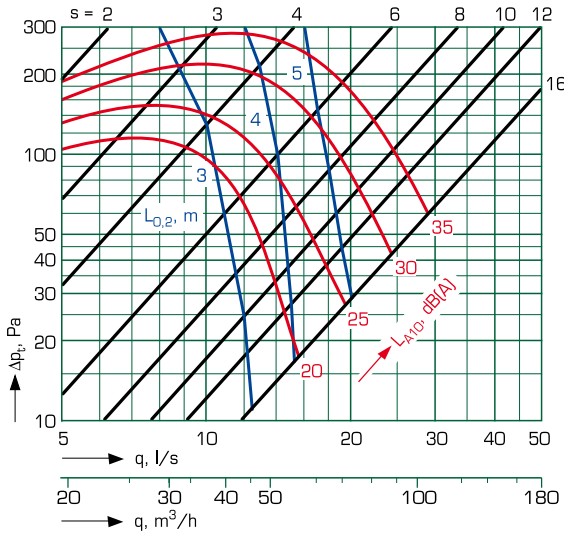
$L_{0,2}$ = throw, m



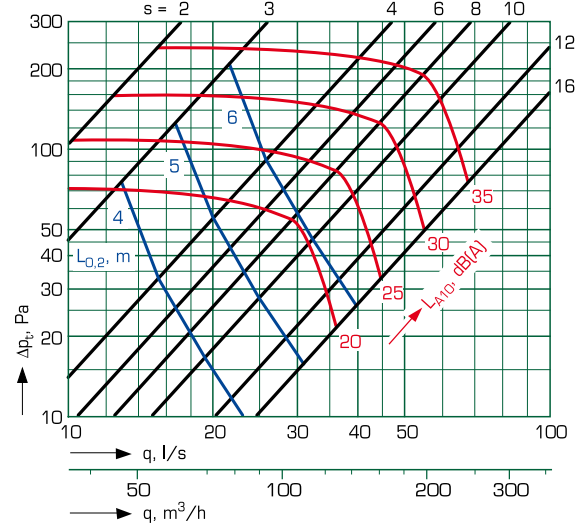
Selection diagrams

Valve with 180° blow

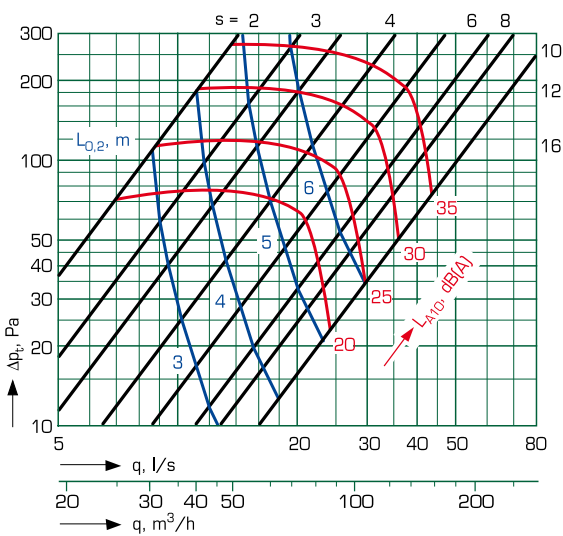
KTI-100-C



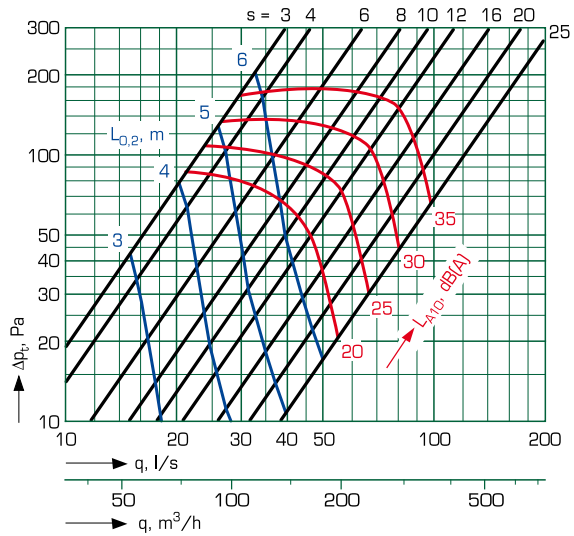
KTI-160-C



KTI-125-C



KTI-200-C

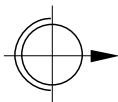


Width, length and height of diffusion pattern

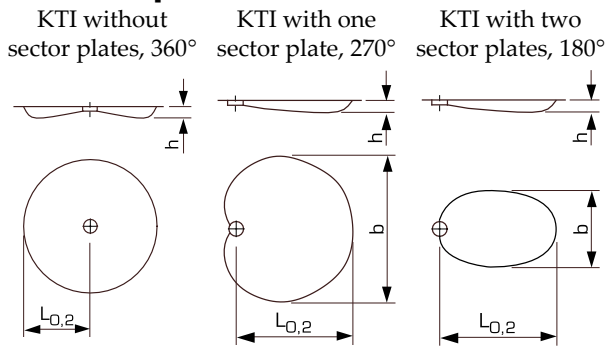
Adjustment	$\Delta t, ^\circ\text{C}$	b, m	$L_{0,2}(\Delta t), \text{m}$	h, mm
180°	0	$0,5 \times L_{0,2}$	1	$9 \times s + 75$
	-8	$0,5 \times L_{0,2}$	$0,9 \times L_{0,2}$	$11 \times s + 80$

s = adjustment position, mm

$L_{0,2}$ = throw, m



Diffusion pattern



Adjustment	$\Delta t, ^\circ\text{C}$	b, m	$L_{0,2}(\Delta t), \text{m}$	h, mm
360°	0	-	1	$9 \times s + 75$
	-8	-	$0,7 \times L_{0,2}$	$11 \times s + 80$
270°	0	$2 \times L_{0,2}$	1	$9 \times s + 75$
	-8	$2 \times L_{0,2}$	$0,9 \times L_{0,2}$	$11 \times s + 80$
180°	0	$0,5 \times L_{0,2}$	1	$9 \times s + 75$
	-8	$0,5 \times L_{0,2}$	$0,9 \times L_{0,2}$	$11 \times s + 80$

s = adjustment position (mm)

Sensitivity to disturbance

The effect of the safety distance x and the valve adjustment position on the noise level.

x	Adjustment position					
	minimum	intermediate		maximum		
4D	+0 dB	+0 dB	+1 dB	+3 dB	+2 dB	+3 dB
2D	+0 dB	+0 dB	+2 dB	+4 dB	+2 dB	+3 dB

Sound data

Sound power level

KTI	Blow	Correction of sound level in dB at octave bands, middle frequency, (Hz)							
		63	125	250	500	1000	2000	4000	8000
100	360°	-10	-2	-5	-1	1	-3	-13	-24
	270°	-4	-2	-4	-1	0	-2	-11	-24
	180°	0	3	-3	-2	0	-2	-10	-19
125	360°	-1	-2	-4	0	0	-3	-15	-26
	270°	-4	-4	-2	0	0	-3	-17	-27
	180°	-9	-5	-3	-1	0	-2	-13	-20
160	360°	-5	-8	-3	0	1	-4	-15	-25
	270°	-7	0	-2	1	0	-3	-15	-26
	180°	-6	1	-2	0	0	-3	-12	-24
200	360°	5	2	-4	1	1	-5	-14	-25
	270°	-1	-3	-2	2	0	-4	-15	-29
	180°	-4	-2	-2	0	0	-2	-12	-25
Tolerance ±		6	3	2	2	2	2	2	3

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

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

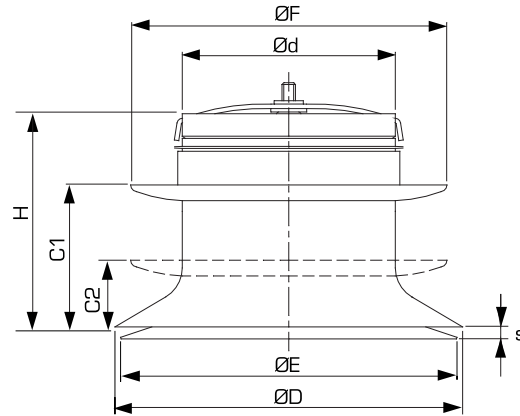
Correction K_{oct} is an average value in the range of use of KTI.

Sound attenuation

KTI	Blow	Sound attenuation in dB at octave bands, middle frequency, (Hz)							
		63	125	250	500	1000	2000	4000	8000
100	360°	23	19	11	6	6	7	5	6
	270°	23	19	11	7	7	8	6	7
	180°	24	20	12	8	8	10	7	8
125	360°	20	15	10	7	7	10	5	7
	270°	20	16	11	9	9	10	6	7
	180°	20	17	13	10	10	11	7	8
160	360°	18	14	10	7	9	7	6	7
	270°	18	14	10	7	10	7	6	7
	180°	20	15	11	9	10	7	6	8
200	360°	17	12	8	8	10	7	5	8
	270°	17	12	9	9	10	8	6	9
	180°	17	13	10	10	11	8	7	10
Tolerance ±		6	3	2	2	2	2	2	3

The average sound attenuation ΔL from duct to room includes the end reflection of the connecting duct in ceiling installation.

Dimensions



Size	ØD [mm]	Ød [mm]	H [mm]	C1 [mm]	C2 [mm]	ØE [mm]	ØF [mm]
100	155	95	95	60	25	150	141
125	185	120	95	60	25	180	166
160	226	155	100	63	28	220	201
200	274	195	100	63	28	268	241

General

Application and function

KTI supply air valve (pat. pend.) covers a wide air volume range; 5 - 100 l/s, for duct sizes 100-200 mm.

The product can be quickly installed directly into the circular duct without a mounting ring.

KTI can be installed in two ways: off the installing surface (figure 1) or close to surface (figure 2). When installing the KTI in the lower position (figure 1) the ceiling around the valve stays clean.

The diffusion pattern of supply air is adjusted with the sector plates (2 pieces.) delivered with the product. There are three alternatives: 360°, 270° (1 plate) or 180° (2 plates) blow.

KTI can be measured, adjusted and locked to the desired adjustment position without unfastening the product from duct.

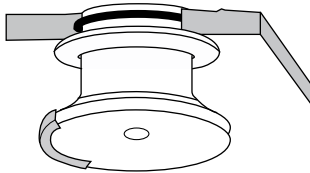


Figure 1: Off the ceiling

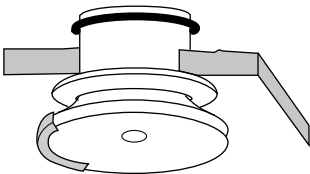


Figure 2: Close to the installation surface

The valve body is equipped with an EPDM rubber sealing gasket. The valve can easily be adjusted to the desired position by rotating the disc. The adjustment position is secured by pressing a locking button (material ABS) to the disc.

The diffusion pattern is chosen by preventing the supply air flow to a certain direction with the sector plates (material ABS) delivered with the product.

Material and surface finish

The valve are made from hot-dip galvanized steel sheet.

The devices are powder coated for a high surface finish and good impact and scratch resistance.

Standard colour is white (RAL-9010). CleanVent coating as standard. 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.

Definitions

q	air volume	l/s, m ³ /h
Δp_t	total pressure drop	Pa
$L_{0,2}$	throw	m
L_{p10A}	sound pressure level with 4 dB (10 m ² sab)	dB(A)
L_{Woct}	sound power level	dB
K_{oct}	correction	dB
K_{oct}	correction	dB
ΔL	sound attenuation from duct to room	dB

Descriptive text

Supply air valve KTI, type round supply air valve, manufactured by FläktGroup, for example in size 125.

Product code

Supply air valve

KTI-aaa-b

Size (aaa)

100, 125, 160, 200

Surface finish (b)

C = Standard CleanVent coating

E = Special colour