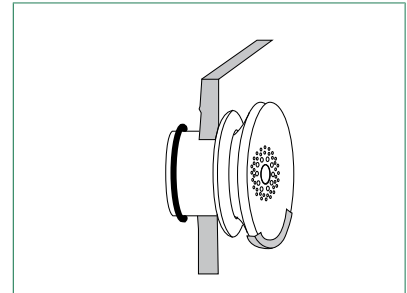
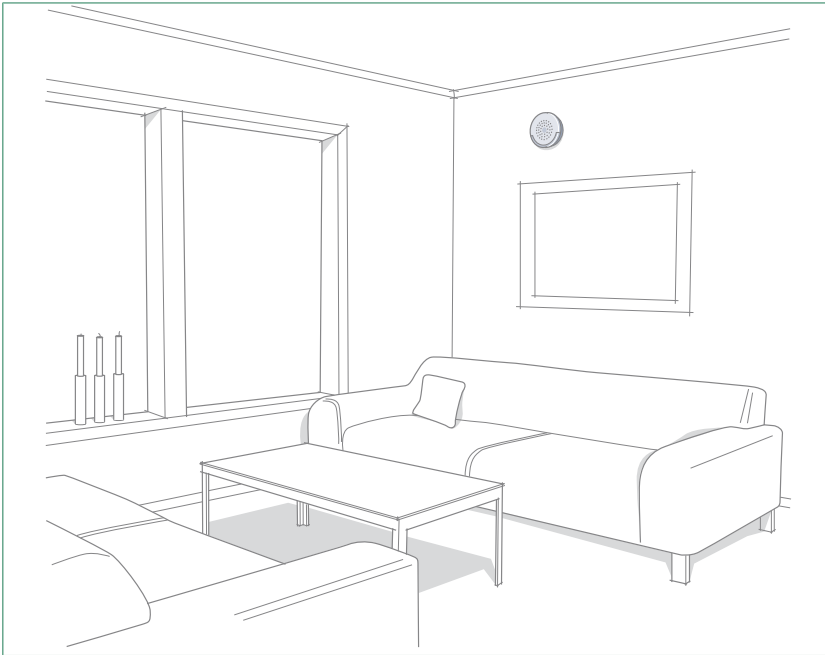


STI Supply air valve



STI supply air valve for wall mounting covers a wide air volume area from 5 to 70 l/s , for duct sizes 100 - 200 mm .

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

STI can be installed close to the wall or off the wall. The diffusion pattern of supply air is adjusted with the two sector plates delivered with the product.

The supply air valve can be adjusted and locked to the desired position without separating the valve from duct.

Quick Selection

Device Size	Air flow range l/s at sound level		
	25 dB	30 dB	35 dB
STI-100-C	22	25	29
STI-125-C	30	35	41
STI-160-C	43	50	59
STI-200-C	60	71	86

Specifications

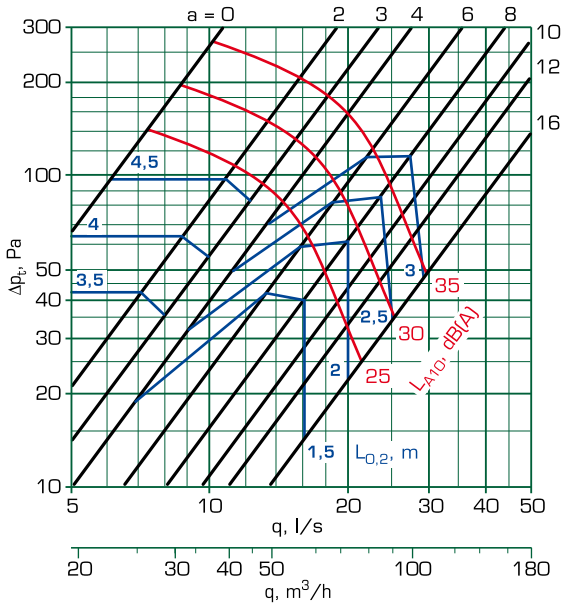
- CleanVent coating as standard
- Easy and quick to install.
- Quiet operation.
- Wide air volume range.
- Adjustable diffusion patterns.
- Four sizes.
- Manufactured of steel.

Product code example

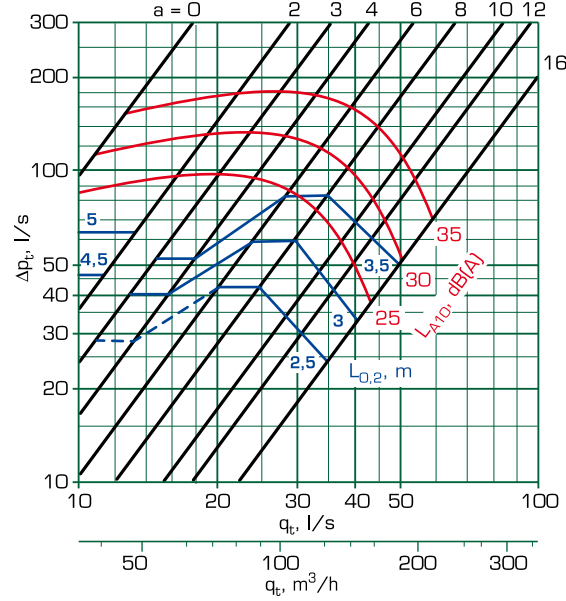
Supply air valve STI-160-C

Selection diagrams

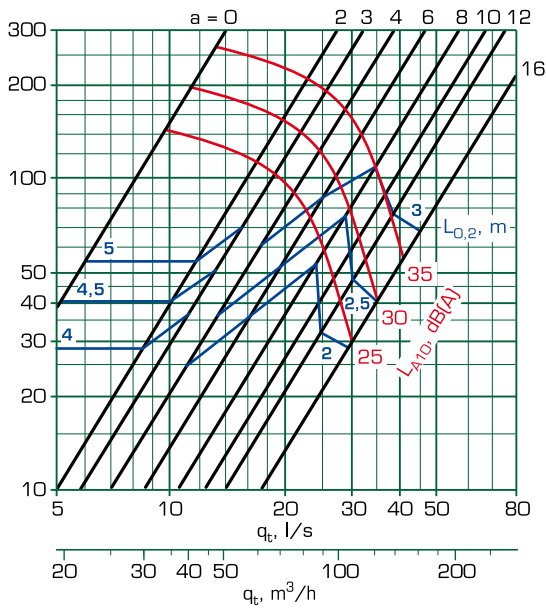
STI-100-C



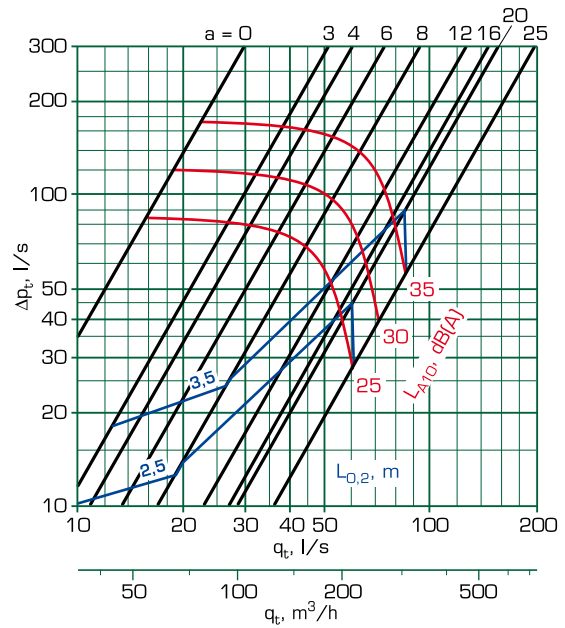
STI-160-C



STI-125-C

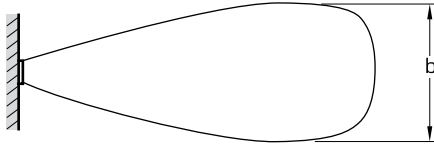


STI-200-C

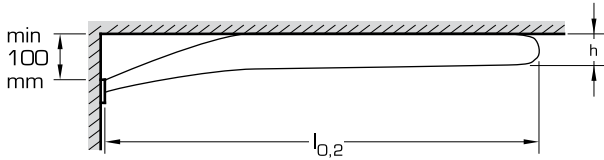


Diffusion pattern

Vertical



Horizontal



Throw length of chilled supply air is obtained by using the correction factor k in the following formula:

$$L_{0,2(\Delta t)} = k \times l_{0,2}$$

$\Delta t, ^\circ\text{C}$	k	h
0	1,0	0,07 x $l_{0,2}$
-7	0,8	0,18 x $l_{0,2}$

Width of diffusion pattern for different sizes at different adjustment positions is obtained by using the correction factor k₂ in the formula:

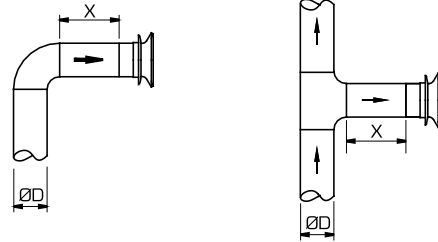
$$b = k_2 \times l_{0,2}$$

Slot a, mm	k ₂	
	Ø100-Ø160	Ø200
0	0,15	0,15
2 - 3	0,40	0,40
4 - 6	0,80	0,50
8 - 12	1,10	0,80
16 - 25	1,10	1,50

Sensitivity to disturbance

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

x	Adjustment positions					
	0-3		4-6		8-25	
2D	+0 dB	+0 dB	+1 dB	+2 dB	+0 dB	+2 dB
1D	+0 dB	+0 dB	+2 dB	+2 dB	+1 dB	+2 dB



Sound data

Sound power level

STI	Correction of sound level in dB at octave bands, middle frequency, (Hz)							
	63	125	250	500	1000	2000	4000	8000
100	10	-5	-2	-21	0	-2	-9	-22
125	7	-5	-4	0	0	-3	-10	-23
160	6	-2	-2	0	0	-3	-9	-25
200	3	-1	-5	0	1	-4	-16	-29
Tol. ±	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:

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

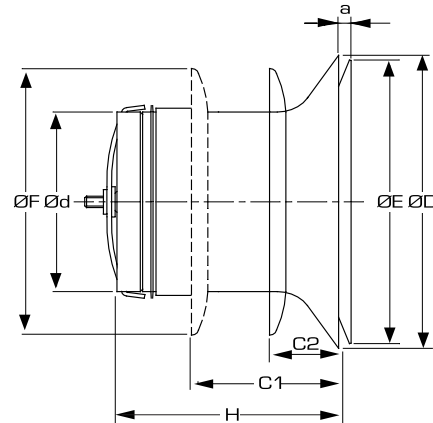
Correction K_{oct} is an average value in the range of use of STI.

Sound attenuation

STI	Sound attenuation in dB at octave bands, middle frequency, (Hz)							
	63	125	250	500	1000	2000	4000	8000
100	21	12	8	4	1	0	3	4
125	19	11	9	3	2	2	5	6
160	16	11	6	3	1	3	5	5
200	14	9	4	2	2	4	4	5
Tol. ±	6	3	2	2	2	2	2	3

The average sound attenuation ΔL of STI from duct to room includes the end reflection of the connecting duct in wall 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

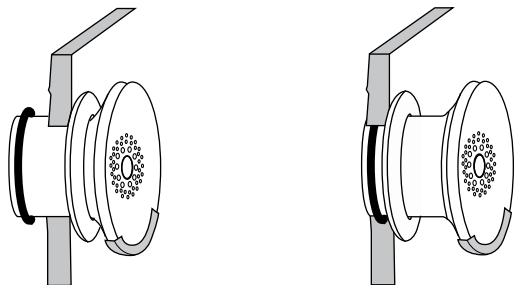
Application and Function

STI supply air valve (patent pending) for wall mounting covers a wide air volume area; from 5 to 70 l/s, for duct sizes 100 - 200 mm.

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

STI supply air valve can be installed in two ways: close to the installing surface (fig. 1) or off the surface (fig. 2). If the product is installed off the installing surface, the wall around the valve is protected against dust from the duct.

The diffusion pattern of supply air is adjusted with the sector plates (2 pcs.) delivered with the product. STI supply air valve can be measured, adjusted and locked to the desired adjustment position without separating the product from duct.



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 pushing a lock pin into the disc.

The diffusion pattern is selected by obstructing the flow of supply air downwards with the sector plates delivered with the product.

Material and surface finish

STI is made of 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 9003). CleanVent coating as standard. Other colours are available to special order.

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

Supply air valve STI, circular, manufactured by FläktGroup, in e.g. size 125 for wall mounting.

Product code

Supply air valve

STI-aaa-b

Size (aaa)

100, 125, 160, 200

Surface finish (b)

C = Standard CleanVent coating

E = Special colour