

Chapter 9**Volume control dampers**

KIVT 582
Control damper
Opposed blade



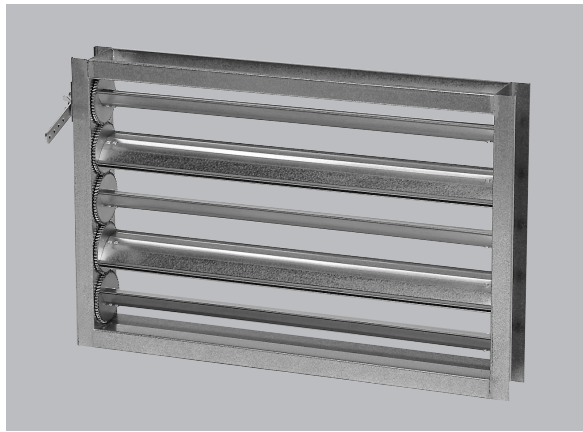
KLVT 582
Control damper
Opposed blade
Air tight



VRH 584
Control damper
Round



SRH 586
Round Damper



K-VT

- ▶ **Control damper**
- ▶ **Opposed blades**

Design:

frame and damper blades: sendzimir galvanised sheet steel

drive: aluminium cog wheel

bearings: polyamide

Available types:

- K - V T - -**
- K** control damper
 - **air-tightness**
 - I** standard
 - R** rubber seals on blade
 - L** air-tight class 4 according EN 1751
 - V** square or rectangular
 - T** intermediate mounting flanges
 - **width of housing**
 - E** 121 mm
 - F** 175 mm
 - **design**
 - G** suitable for servo motor control
 - H** with manual adjustment

Application:

The control dampers type KIVT, KRVT and KLVT are suitable for sleeve fitting into air treatment cases or air duct systems as control or cut-off damper. The dampers are available and suitable for manual or motorised operation.

Features:

Two blade sizes available.
 Low resistance in open position.
 Low flow sound.

Dimensional data model KIVTE-:

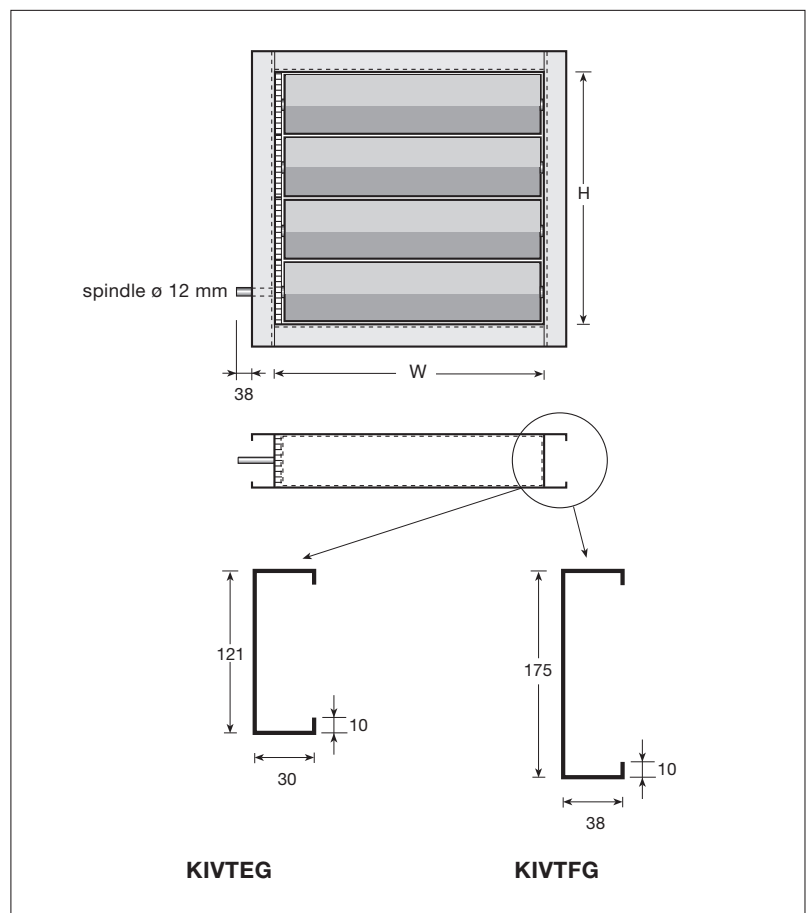
Widths are available from 200 mm to 1300 mm with 50 mm steps. Heights are available from 205 mm to 1205 mm with 50 mm steps.

Dimensional data model KIVTF-:

H	W								
	300	500	700	900	1200	1400	1600	1800	2000
345	•	•	•	•	•	•	•	•	•
510	•	•	•	•	•	•	•	•	•
675	•	•	•	•	•	•	•	•	•
840	•	•	•	•	•	•	•	•	•
1005	•	•	•	•	•	•	•	•	•
1170	•	•	•	•	•	•	•	•	•
1335	•	•	•	•	•	•	•	•	•
1500	•	•	•	•	•	•	•	•	•
1665	•	•	•	•	•	•	•	•	•
1830	•	•	•	•	•	•	•	•	•
1995	•	•	•	•	•	•	•	•	•

Also available in intermediate sizes.

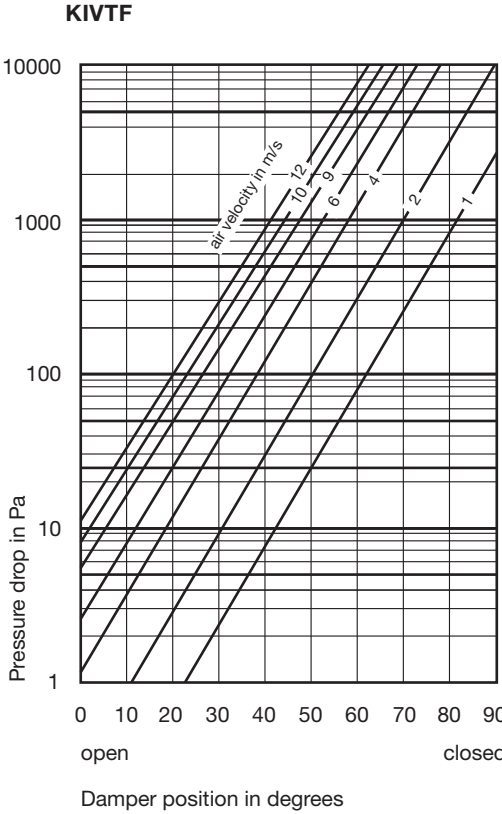
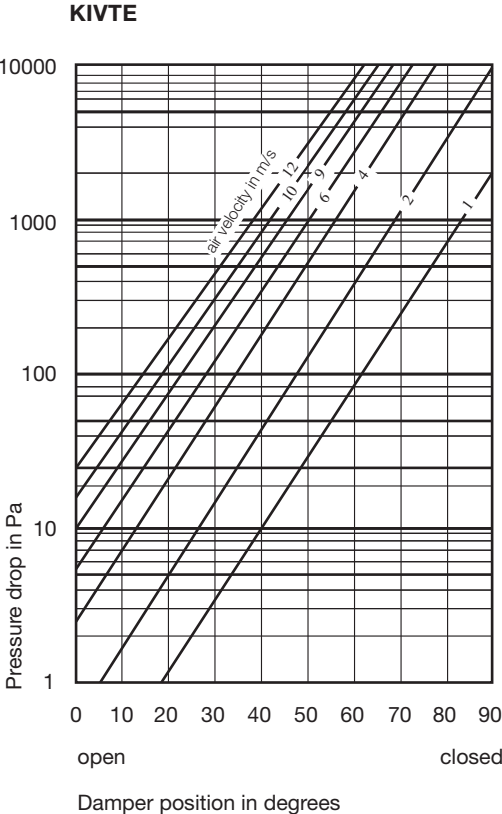
Dimensions:



Remark:

The stated dimensions are in mm.

Performance data:





VRH

- ▶ **Damper**
- ▶ **Round**
- ▶ **Manual adjustable**

Design:

damper:	galvanised sheet steel
finish:	none
air-tight:	conform EN 1751 class C

Available types:

V R - - -
V damper
R round
H manual adjustable

Application:

The damper type VRH is suitable for fitting into air duct systems as control or cut-off damper. The damper can be adjusted within a 90° angle. The damper position is locked with one screw. The damper can be insulated up to 50 mm without interfering the controls.

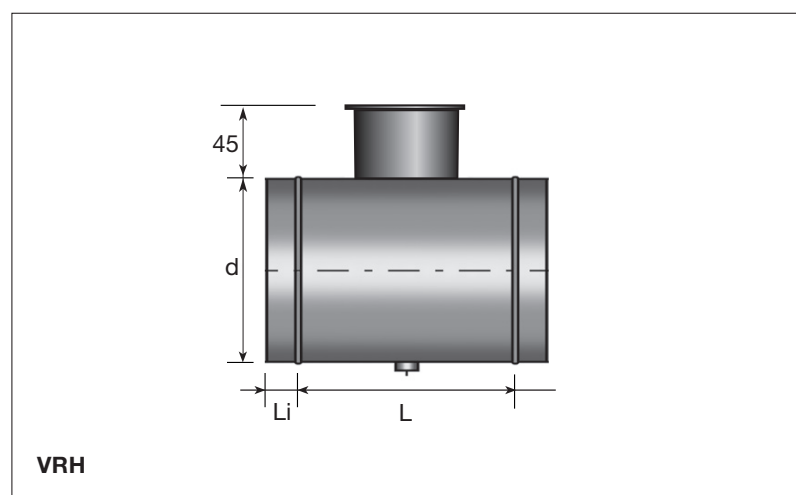
Features:

Low pressure drop in open position.
Low discharge sound.

Dimensional data:

model	Ø d	L	L _i	weight Kg
80	79	88	35	0.35
100	99	88	35	0.41
125	124	88	35	0.51
150	149	88	35	0.61
160	159	88	35	0.65
180	179	88	35	0.67
200	199	88	35	0.81
224	223	88	45	0.89
250	249	88	45	1.02
280	279	88	45	1.40
300	299	88	45	1.22
315	314	88	45	1.30
355	354	88	55	1.85
400	399	88	55	2.70
450	449	128	55	3.60
500	499	128	55	4.70
560	559	128	55	5.30
600	599	128	55	5.80
630	629	128	55	6.30
710	709	230	100	11.00
800	799	230	100	19.00
900	899	230	100	24.00
1000	999	230	100	30.00

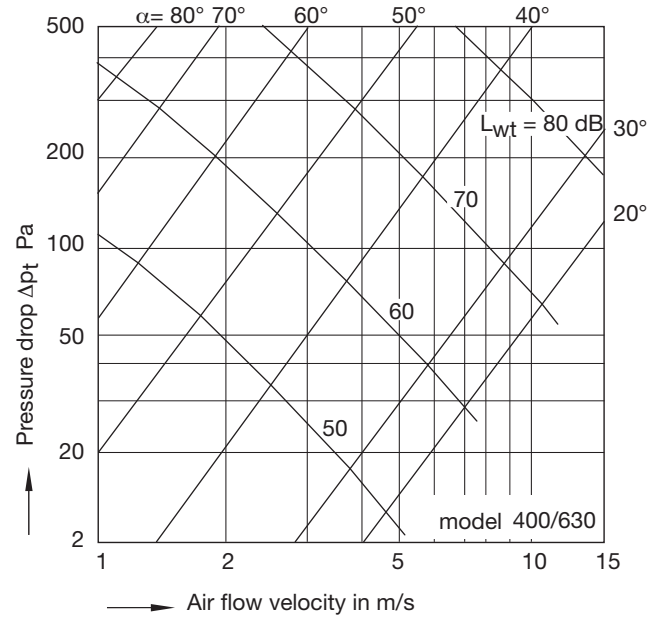
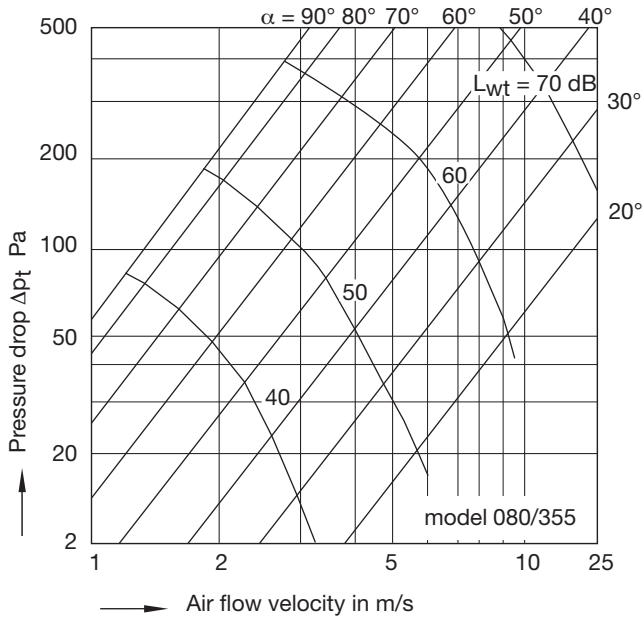
Dimensions:



Remark:

The dimensions are given in mm.

Pressure drop and sound data VRH:



General sound data:

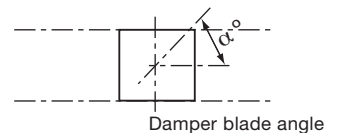
The diagrams above show the total generated sound power level L_{wt} as a function of the airflow and pressure drop through the damper. The sound power levels for the respective octave bands can be obtained by using the formula:

$$L_w = L_{wt} + K_1 + K_2$$

K_1 and K_2 can be obtained from tabel 1 and 2 (see below).

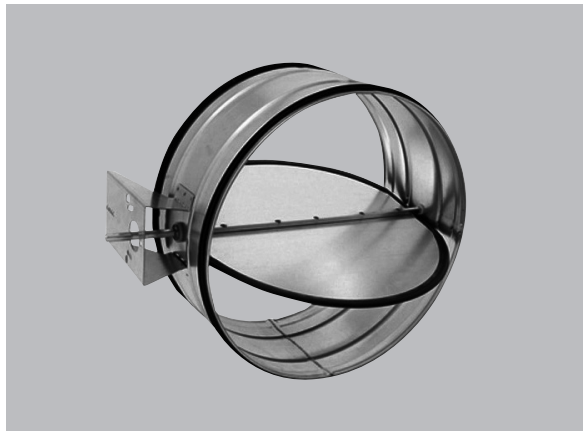
Tabel 1, correction per model:

model	100	125	160	200	250	315	400	500	630
dB	-2	-1	0	+1	+2	+3	+4	+5	+6



Tabel 2, correction per frequency band:

model	damper position α°	Lw in dB / octave Hz						
		125	250	500	1000	2000	4000	8000
100-355	20	-1	-10	-16	-18	-22	-26	-31
	30	0	-9	-15	-17	-20	-24	-30
	40	-1	-8	-13	-14	-13	-14	-21
	50	-3	-6	-11	-12	-10	-11	-17
	60	-5	-4	-8	-10	-13	-14	-19
	70	-4	-5	-8	-10	-13	-15	-21
	80	-4	-5	-9	-11	-14	-17	-23
400-630	20	0	-15	-19	-21	-25	-29	-33
	30	0	-15	-19	-21	-24	-28	-32
	40	-4	-14	-16	-15	-18	-21	-25
	50	-7	-13	-14	-11	-11	-14	-18
	60	-11	-12	-11	-6	-5	-8	-11
	70	-14	-13	-12	-6	-5	-8	-12
	80	-17	-15	-12	-5	-5	-8	-12



SR--

- ▶ Damper
- ▶ Round

Design:

damper: galvanised sheet steel
 finish: none
 air-tight:
 SRHA en SRSA: conform EN 1751 class 4C
 SRH: conform EN 1751 class 4D

Available types:

- S R - -**
- S** damper - safe
 - R** round
 - **H** manual adjustable
 - HA** manual adjustable, rubber seals on blade
 - SA** suitable for actuator operation, rubber seals on blade

Application:

The damper type SRH is suitable for fitting into air duct systems as control or cut-off damper. The damper can be adjusted within a 90° angle. The damper position is locked with one screw. The damper can be insulated up to 50 mm dikte.

The type SRHA/SRSA is provided with a rubber seal on the damper blade.

Features:

- Low pressure drop in open position.
- Low discharge sound.

Available types and weights:

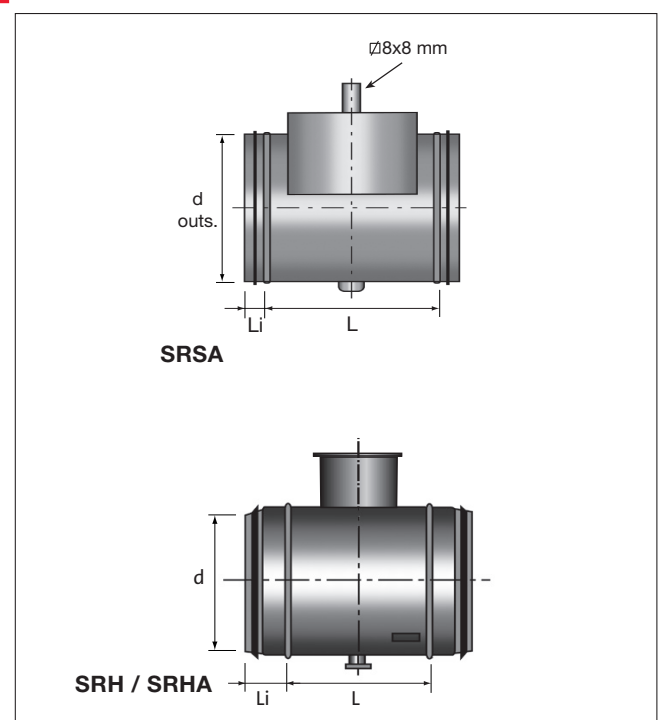
SRH - SRHA					SRSA				
model	d outs.	L	L _i	weight Kg	model	d outs.	L	L _i	weight Kg
80*	79	88	35	0.40	100	99	88	35	0.68
100	99	88	35	0.45	125	124	88	35	0.79
125	124	88	35	0.56	150	149	88	35	0.91
150	149	88	35	0.68	160	159	88	35	0.93
160	159	88	35	0.70	180	179	88	35	1.07
180	179	88	35	0.84	200	199	88	35	1.13
200	199	88	35	0.90	224	223	88	45	1.27
224	223	88	45	1.04	250	249	88	45	1.28
250	249	88	45	1.05	280	279	88	45	1.63
280	279	88	45	1.40	300	299	88	45	1.83
300	299	88	45	1.60	315	314	88	45	1.93
315	314	88	45	1.70	355	354	88	55	2.03
355	354	88	55	1.80	400	399	88	55	3.13
400	399	88	55	2.90	450	449	128	55	4.23
450	449	128	55	4.00	500	499	128	55	5.13
500	499	128	55	4.90	560	559	128	55	5.13
560	559	128	55	5.30	630	629	128	55	5.53
630	629	128	55	6.30					

* model 80 only available in type SRH.

Remark:

The dimensions are given in mm.

Dimensions:



Remark:

SRH - damper, manual adjustable with closed blade.

SRA - damper, manual adjustable, closing.

SRSA - damper, actuator operated (actuator not included), shut. Actuator can be included and/or mounted.

The thickness of the shaft is 8 x 8 mm. (the same for all model sizes)