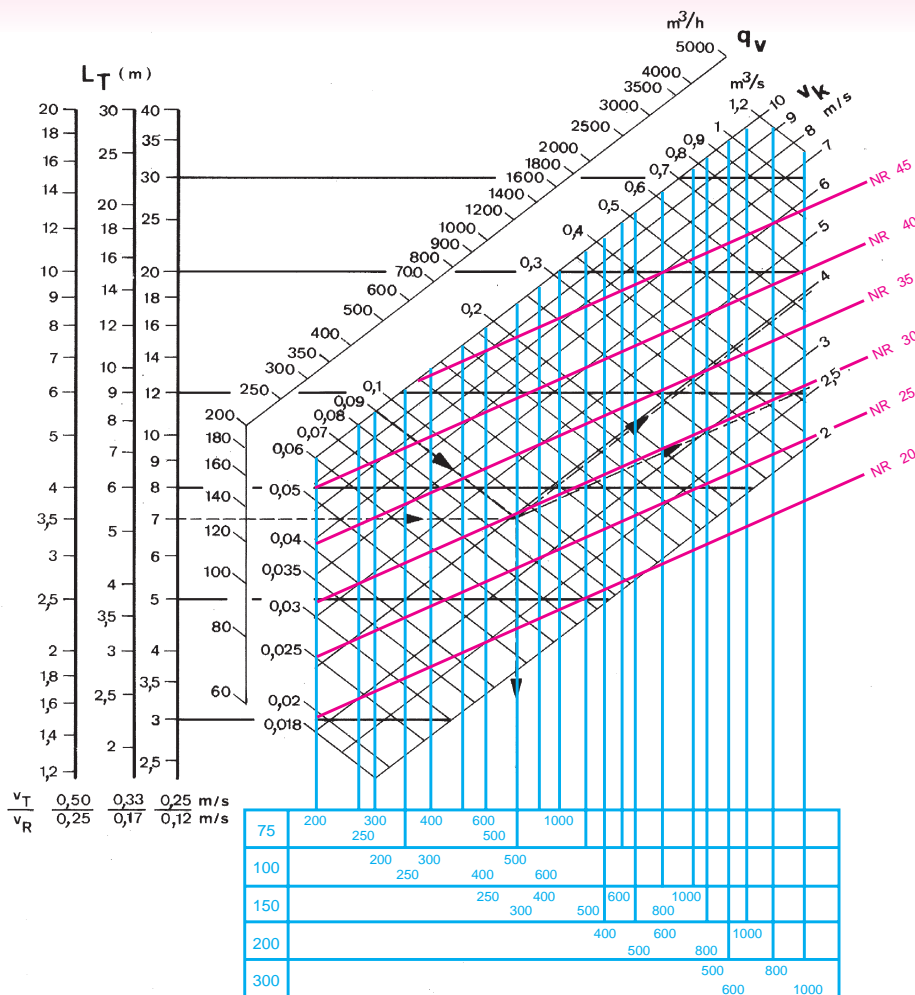


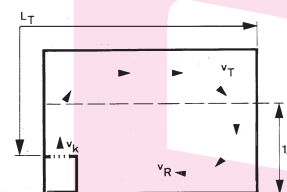
Selection diagram - supply

0° deflection

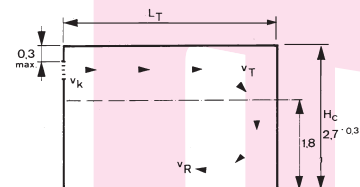
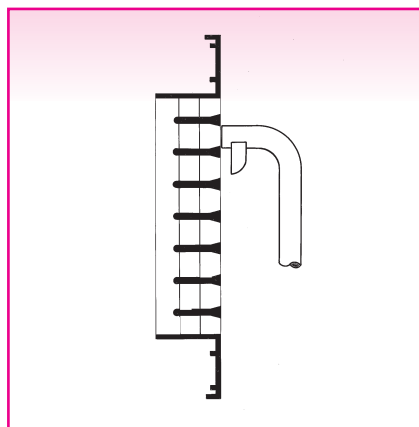
- with ceiling effect
- damper completely open



Sill mounted



Wall mounted

Air flow rate measurement-
supply

Velometer jet 2220 A or 6070

A_k-values (m²)

H (mm)	L (mm)							
	200	250	300	400	500	600	800	1000
75	0,006	0,008	0,009	0,013	0,016	0,019	0,027	0,031
100	0,009	0,011	0,013	0,019	0,023	0,027	0,038	0,047
150	—	0,019	0,023	0,031	0,038	0,047	0,063	0,078
200	—	—	—	0,042	0,053	0,063	0,084	0,108
300	—	—	—	—	0,084	0,099	0,133	0,167

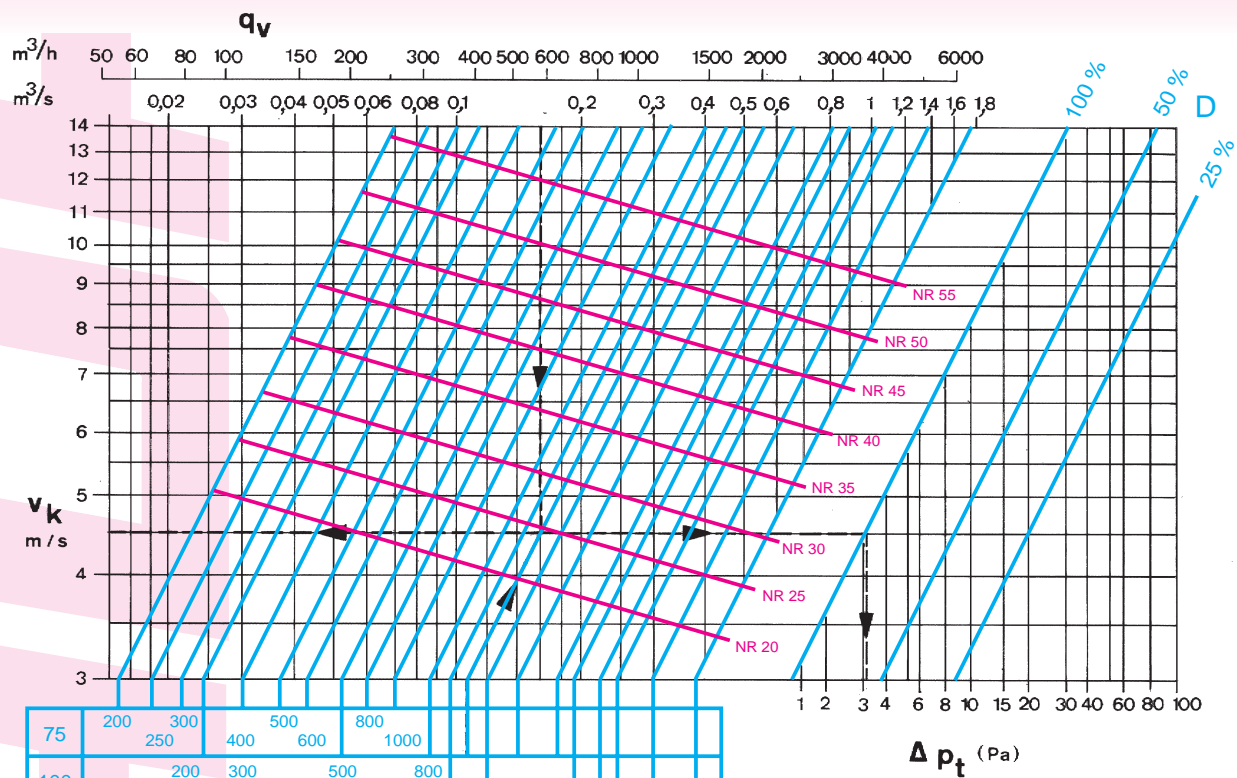
Correction factors:

- Throw correction factor without ceiling effect

Distance between ceiling and supply grille	Correction
≥ 0,9 m	L _T X 0,75

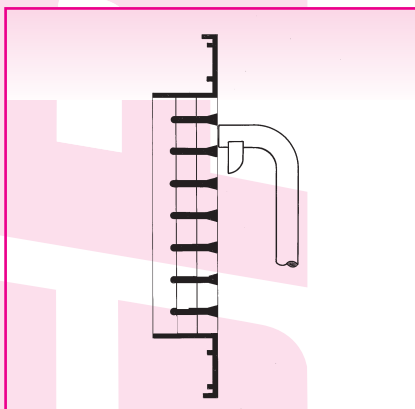
- Correction factors for vertical vane deflection of flow equalizer (see p. 1 231 verso)

Selection diagram - exhaust



When 15° deflected bars are used, air flow rate will be reduced by 5% at listed Δp_t and NR values.

Air flow rate measurement - exhaust

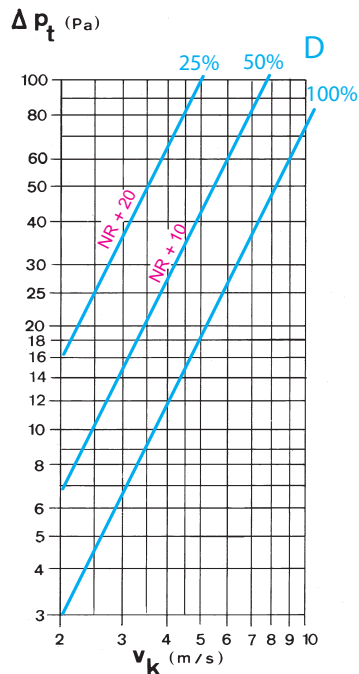


Velometer jet 2220 A or 6070

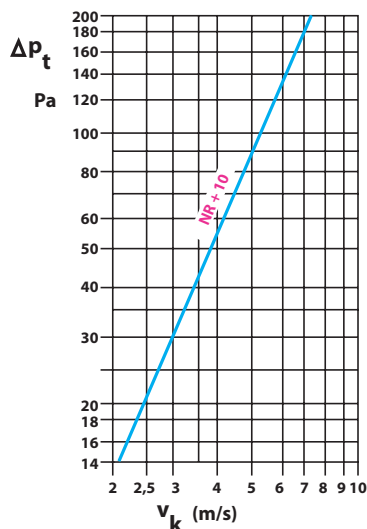
A _k -values (m ²)								
H (mm)	L (mm)							
	200	250	300	400	500	600	800	1000
75	0,005	0,006	0,007	0,010	0,012	0,014	0,020	0,023
100	0,007	0,008	0,008	0,014	0,017	0,020	0,028	0,035
150	—	0,014	0,017	0,023	0,028	0,035	0,047	0,058
200	—	—	—	0,031	0,039	0,047	0,063	0,080
300	—	—	—	—	0,063	0,074	0,099	0,125

Pressure loss - supply

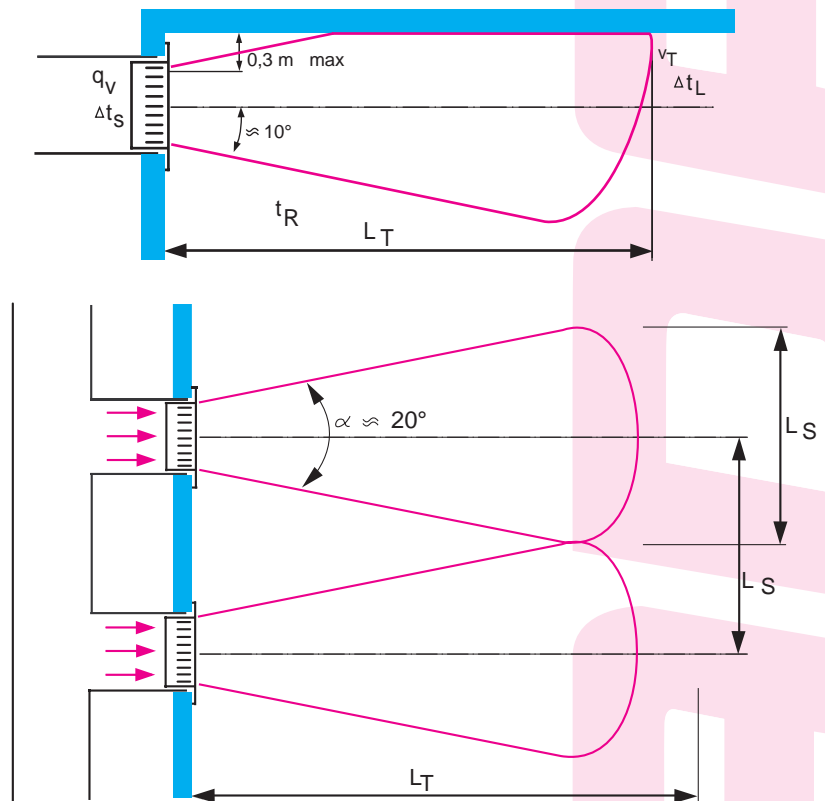
with damper type .. 7



with perforated sheet type ... 3



Example



SUPPLY

Selection data:

Air flow rate $q_v = 0,09 \text{ m}^3/\text{s}$
Throw $L_T = 7 \text{ m}$ at $v_T = 0,25 \text{ m/s}$.

Solution:

Grille 500 x 100 or 300 x 150 mm.
Supply air velocity $v_k = 3,9 \text{ m/s}$.
Noise level NR 29
Total pressure loss with perforated sheet: $\Delta p_t = 59 \text{ Pa}$.
Noise level correction NR
 $29 + 10 = \text{NR } 39$

EXHAUST

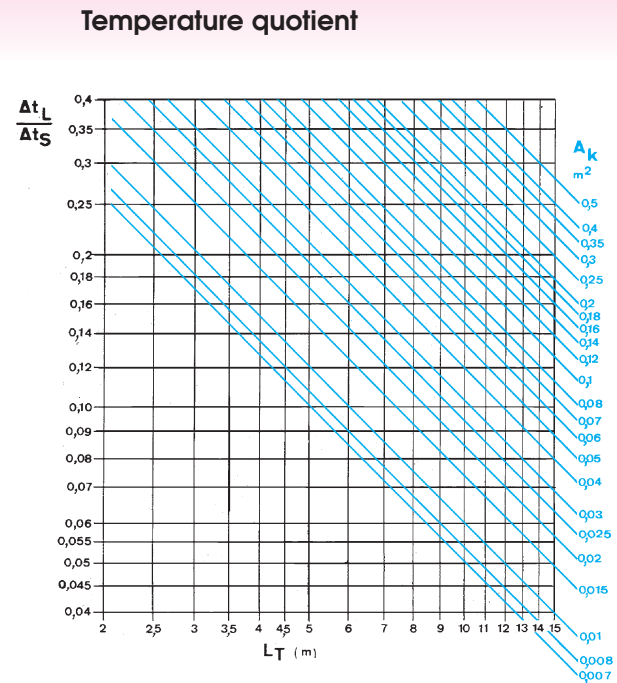
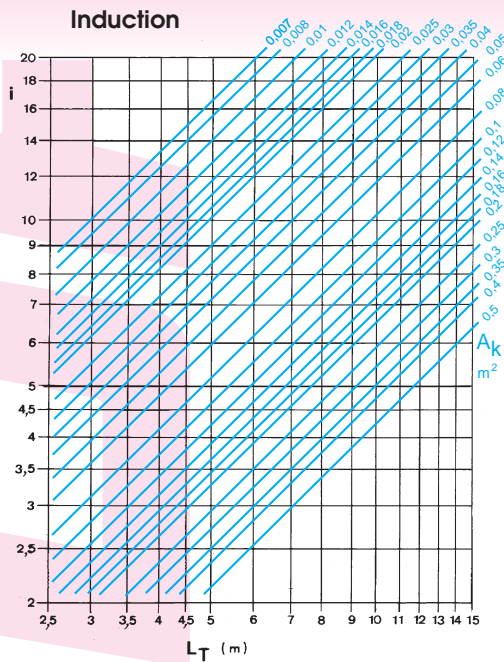
Selection data:

Exhaust air flow rate $q_v = 0,16 \text{ m}^3/\text{s}$

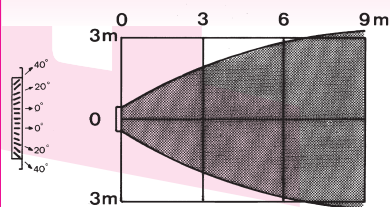
Solution:

Grille 1000 x 100 mm.
Air velocity $v_k = 3,9 \text{ m/s}$.
Noise level NR 25
Total pressure loss with damper
100 % open: $\Delta p_t = 3,2 \text{ Pa}$

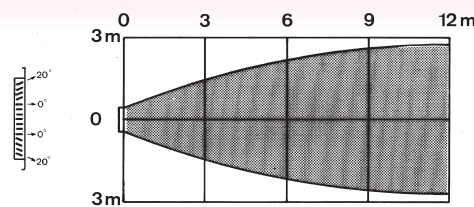
Induction and temperature quotient with ceiling effect (also valid for linear grilles)



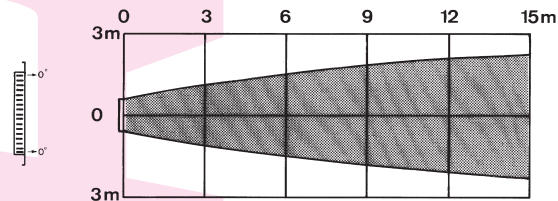
40° deflection



20° deflection



0° deflection

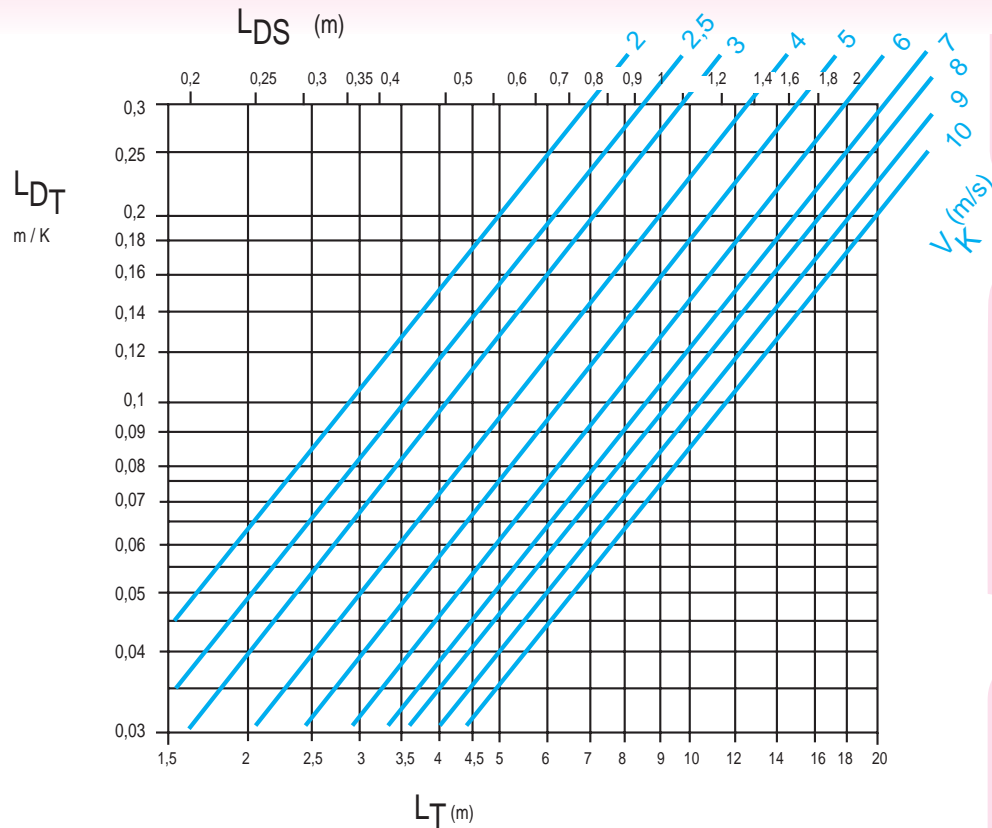


Correction factors

Correction factors for vertical vane deflection of flow equalizer

Type	Deflection	A_k	v_k	L_T	NR	i	$\frac{\Delta t_L}{\Delta t_S}$
300	20°	x 0,87	x 1,15	x 0,85	+ 3	x 1,4	x 0,7
	40°	x 0,80	x 1,25	x 0,75	+ 5	x 2	x 0,5

Drop requirements



Drop requirements

The total drop is the maximum vertical distance between the centre of a grille core and the lower point of a specified envelope, determined by the envelope velocity v_T .

The total drop consists of two elements: $L_D = L_{DS} + L_{DT}$

- 1) The isothermal drop L_{DS} is the distance between the centre of an air current and the lowest point of the envelope.
- 2) The non-isothermal drop L_{DT} is the distance between the centre of the grille core and the air current centre line, at the place of measurement.

