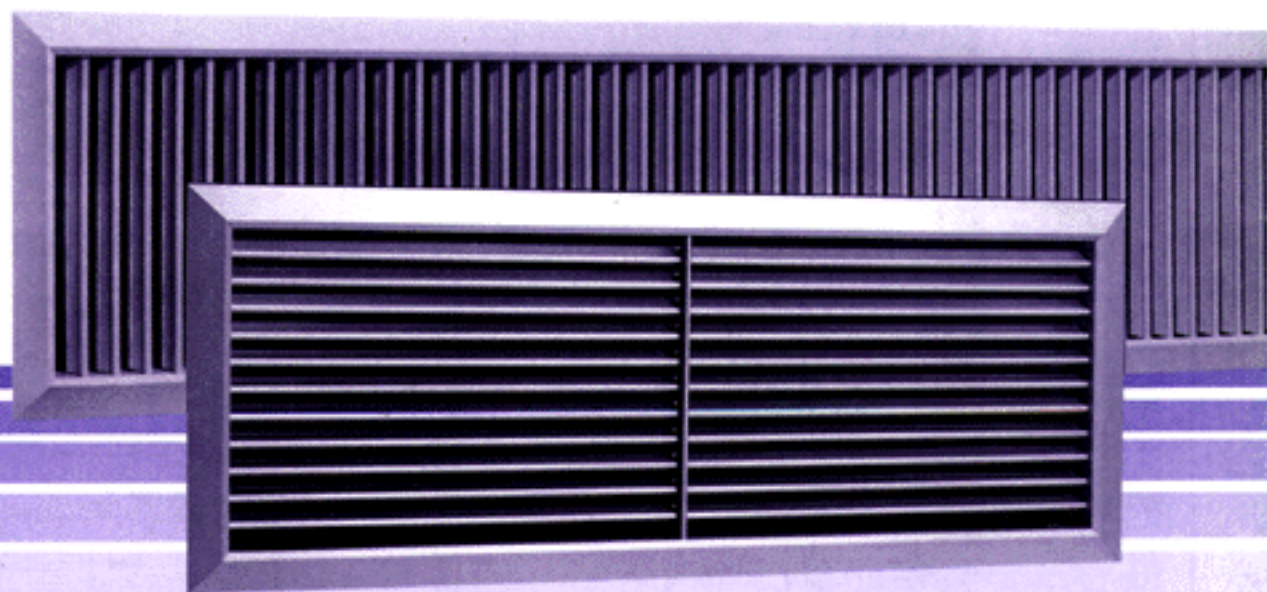


# Grilles Tabular Selection

Type AT · VAT · AF · AH · WAP



**TROX<sup>®</sup> TECHNIK**

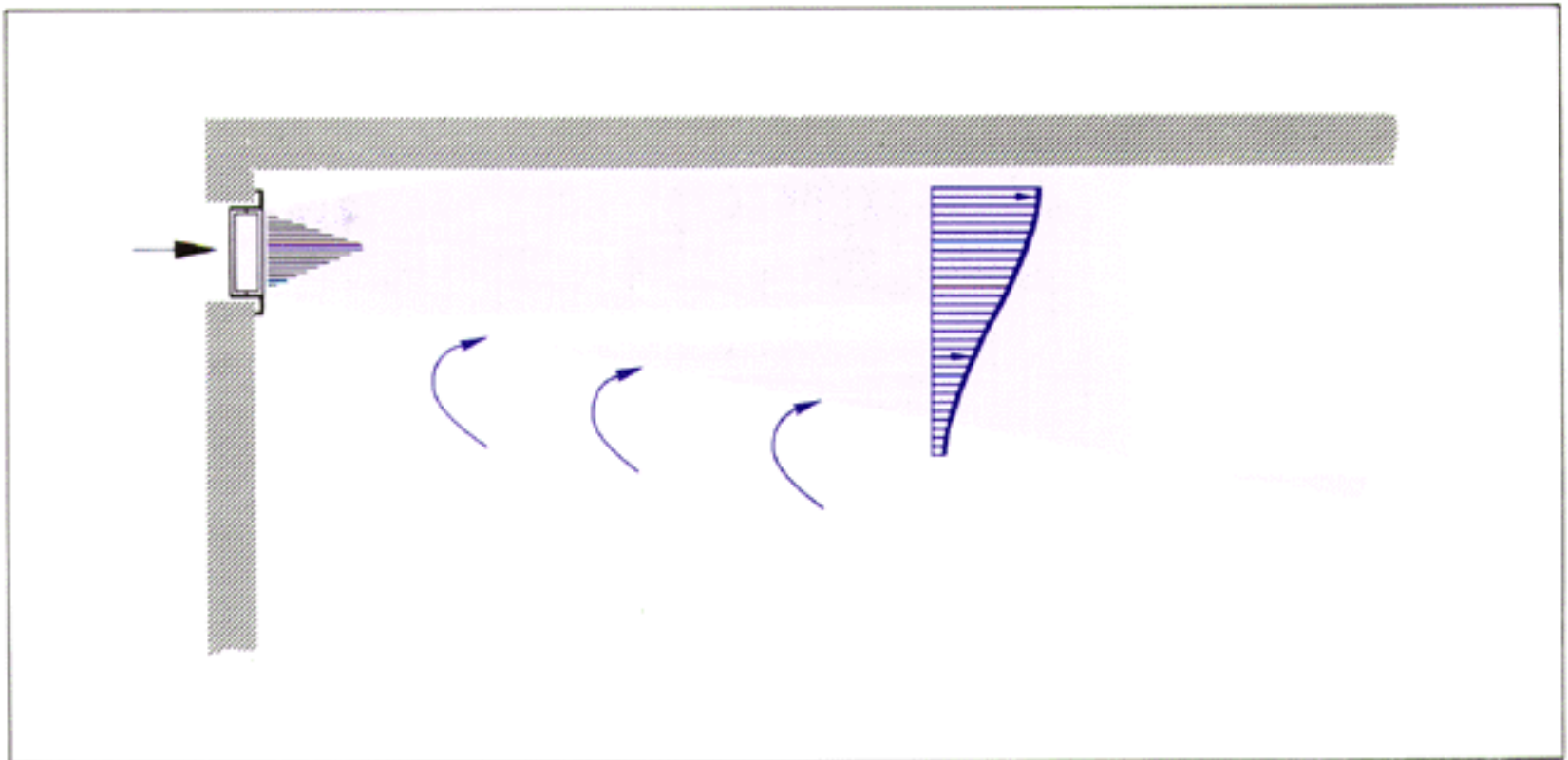
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# Contents · Description

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Description .....	2
Nomenclature · Technical Data ·	
Grilles · Aspect Ratio <12 : 1 .....	3
Tabular Selection - without ceiling effect .....	4
Technical Data · Linear Grilles · Aspect Ratio >14 : 1 ..	8
Tabular Selection - with ceiling effect .....	9



Grille and linear grille performance data is presented in a comprehensive manner in leaflet number 1/1.1/B/1. This includes vector diagrams with correction factors enabling initial selections to be related to aspect ratios, blade divergence, temperature differences and ceiling effect, each of these can, in turn, be related to the desired maximum terminal velocity. It is recommended that this information is used particularly when critical air movement selections are to be made.

Where less or non critical selections are required, much of the technical data has been summarised into the selection tables presented within this leaflet. It is important that the limiting parameters applied to this tabular presentation are recognised, these are defined in the following pages.

# Nomenclature · Technical Data · Grilles Aspect Ratio < 12:1

- $\dot{V}_t$  in l/s : Total Volume flow per grille.
- $\dot{V}$  in l/s.m : Volume flow per m of grille length.
- L in m : Distance from grille or linear grille (throw).
- $L_{0.75}$  in m : Distance from grille or linear grille (throw) to  $\bar{v}_L = 0.75$  m/s.
- $L_{0.5}$  in m : Distance from grille or linear grille (throw) to  $\bar{v}_L = 0.5$  m/s.
- B in m : Spacing between two grilles.
- $\bar{v}_L$  in m/s : Time average air velocity at distance L.

- $v_{eff}$  in m/s : Effective jet velocity (air velocity in grille core).
- L x H in mm : Grille reference size.
- H in mm : Linear Grille height..
- $\alpha$  in ° : Airstream discharge angle.
- $\beta$  in ° : Blade angle in case of divergent setting.
- $L_1$  in m : Grille core length.
- $L_{pNC}$  : NC rating of room sound pressure level based on 8dB room attenuation.

## Grilles Aspect Ratio < 12:1

### Type AT · VAT (Throw)

Throw distances  $L_{0.5}$  and  $L_{0.75}$  given in the tables relate to 0° and 90° vertical blade divergence without ceiling effect and with a minimum distance between grilles equivalent to 0.2 x throw L.

### Noise Levels

These are based on the volume controller of the AG or DG construction being 100% open. For effect of closing damper and sound power level spectra refer to leaflet 1/1.1/B/1.

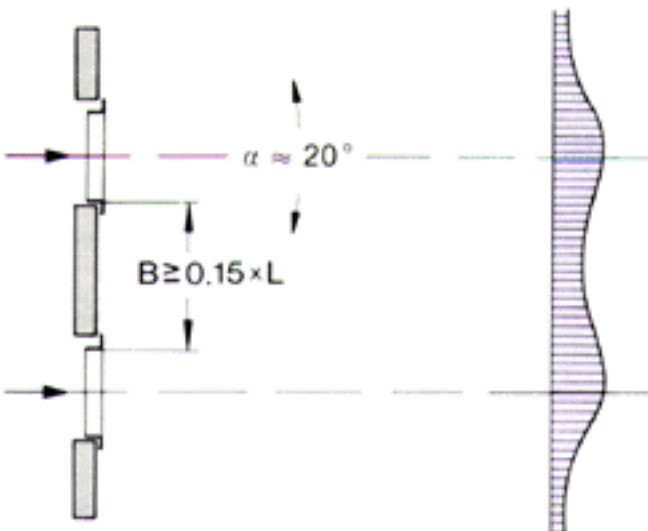
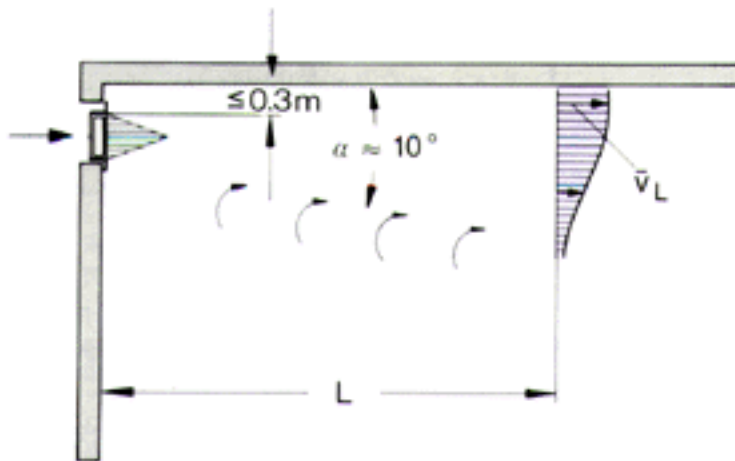
### Outlet Size

Each selection column is headed with a range of sizes of equivalent effective area with a tolerance of ± 10%.

### Airstream Drop/Rise

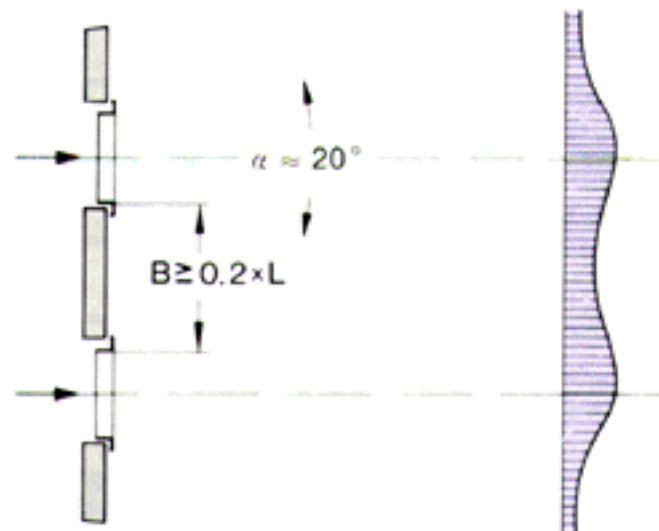
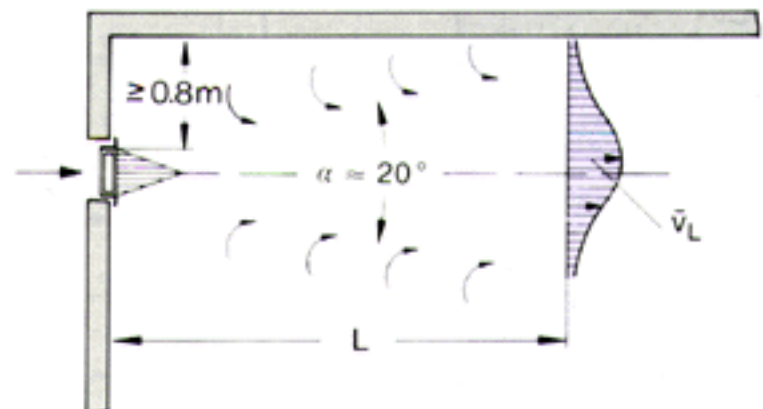
Reference should be made to leaflet 1/1.1/B/1 to determine whether Drop or Rise should be considered in the outlet selection related to temperature difference.

### Installation with ceiling effect.



Correction Factor  
L should be multiplied by 1.41

### Installation without ceiling effect.



As tabulated

# Tabular Selection - Without Ceiling Effect

## 1. Supply Grilles Types AT · VAT - Aspect Ratio <12 :1

V̇ V/s	List Sizes L x H (mm)	200 x 100		250 x 100		300 x 100 200 x 100		400 x 100 250 x 150 200 x 200		450 x 100 300 x 150			
		Deflection β		0°	90°	0°	90°	0°	90°	0°	90°		0°
25	v <sub>eff</sub> .m/s L <sub>0.75</sub> - L <sub>0.5</sub> : m	2.22		1.74									< LpNC 20
		1.5 - 2.2	0.7 - 1.1	1.3 - 2.0	0.7 - 1.0								
50	v <sub>eff</sub> .m/s L <sub>0.75</sub> - L <sub>0.5</sub> : m	4.42		3.46		2.88		2.16		1.86			
		3.0 - 4.5	1.5 - 2.2	2.6 - 4.0	1.3 - 2.0	2.4 - 3.6	1.2 - 1.8	2.1 - 3.1	1.0 - 1.6	1.9 - 2.9	1.0 - 1.5		
75	v <sub>eff</sub> .m/s L <sub>0.75</sub> - L <sub>0.5</sub> : m	6.64		5.20		4.30		3.26		2.80			LpNC 20
		4.5 - 6.7	2.2 - 3.4	4.0 - 5.9	2.0 - 3.0	3.6 - 5.4	1.8 - 2.7	3.1 - 4.7	1.6 - 2.4	2.9 - 4.4	1.5 - 2.2		
100	v <sub>eff</sub> .m/s L <sub>0.75</sub> - L <sub>0.5</sub> : m	8.86		6.94		5.74		4.34		3.72			
		6.0 - 9.0	3.0 - 4.5	5.3 - 8.0	2.6 - 4.0	4.8 - 7.2	2.4 - 3.6	4.1 - 6.3	2.1 - 3.1	3.9 - 5.8	1.9 - 2.9		
125	v <sub>eff</sub> .m/s L <sub>0.75</sub> - L <sub>0.5</sub> : m	11.06		8.68		7.18		5.42		4.66			LpNC 30
		7.5 - 11.2	3.7 - 5.6	6.8 - 10.2	3.4 - 5.1	6.0 - 9.0	3.0 - 4.5	5.2 - 8.0	2.6 - 4.0	4.8 - 7.2	2.4 - 3.6		
150	v <sub>eff</sub> .m/s L <sub>0.75</sub> - L <sub>0.5</sub> : m			10.42		8.62		6.52		5.58			
				8.0 - 12.0	4.0 - 6.0	7.2 - 10.8	3.6 - 5.4	6.3 - 9.4	3.1 - 4.7	5.8 - 8.7	2.9 - 4.4		
175	v <sub>eff</sub> .m/s L <sub>0.75</sub> - L <sub>0.5</sub> : m					10.06		7.60		6.52			LpNC 30
						8.4 - 12.6	4.2 - 6.3	7.3 - 11.0	3.7 - 5.5	6.8 - 10.2	3.4 - 5.1		
200	v <sub>eff</sub> .m/s L <sub>0.75</sub> - L <sub>0.5</sub> : m							8.68		7.44			
								8.4 - 12.5	4.2 - 6.3	7.7 - 11.6	3.4 - 5.8		
225	v <sub>eff</sub> .m/s L <sub>0.75</sub> - L <sub>0.5</sub> : m							9.78		8.38			LpNC 35
								9.4 - 14.1	4.7 - 7.1	8.7 - 13.1	4.4 - 6.5		
250	v <sub>eff</sub> .m/s L <sub>0.75</sub> - L <sub>0.5</sub> : m							10.86		9.30			
								10.4 - 15.7	5.2 - 7.8	9.7 - 14.5	4.8 - 7.2		
275	v <sub>eff</sub> .m/s L <sub>0.75</sub> - L <sub>0.5</sub> : m									10.24			< LpNC 35
										10.7 - 16.0	5.3 - 8.0		
300	v <sub>eff</sub> .m/s L <sub>0.75</sub> - L <sub>0.5</sub> : m												
325	v <sub>eff</sub> .m/s L <sub>0.75</sub> - L <sub>0.5</sub> : m												
350	v <sub>eff</sub> .m/s L <sub>0.75</sub> - L <sub>0.5</sub> : m												
375	v <sub>eff</sub> .m/s L <sub>0.75</sub> - L <sub>0.5</sub> : m												
400	v <sub>eff</sub> .m/s L <sub>0.75</sub> - L <sub>0.5</sub> : m												
425	v <sub>eff</sub> .m/s L <sub>0.75</sub> - L <sub>0.5</sub> : m												
450	v <sub>eff</sub> .m/s L <sub>0.75</sub> - L <sub>0.5</sub> : m												
475	v <sub>eff</sub> .m/s L <sub>0.75</sub> - L <sub>0.5</sub> : m												
500	v <sub>eff</sub> .m/s L <sub>0.75</sub> - L <sub>0.5</sub> : m												

# Tabular Selection - Without Ceiling Effect

## 1.1 Supply Grilles Types AT · VAT - Aspect Ratio <12 :1

V l/s	List Sizes L x H (mm)	500 x 100 250 x 200		700 x 100 450 x 150 250 x 250		750 x 100 500 x 150 350 x 200 300 x 250		950 x 100 600 x 150 450 x 200 350 x 250 300 x 300		1200 x 100 450 x 250 350 x 300	
		0°	90°	0°	90°	0°	90°	0°	90°	0°	90°
50	$v_{eff}$ .m/s $L_{0.75} - L_{0.5}$ : m	1.68 1.8 - 2.8	0.9 - 1.4								
75	$v_{eff}$ .m/s $L_{0.75} - L_{0.5}$ : m	2.52 2.8 - 4.1	1.4 - 2.1	1.84 2.4 - 3.5	1.2 - 1.8	1.66 2.2 - 3.3	1.1 - 1.7				
100	$v_{eff}$ .m/s $L_{0.75} - L_{0.5}$ : m	3.38 3.7 - 5.5	1.8 - 2.8	2.46 3.2 - 4.7	1.6 - 2.4	2.22 3.0 - 4.5	1.5 - 2.2	1.80 2.7 - 4.0	1.3 - 2.0		
125	$v_{eff}$ .m/s $L_{0.75} - L_{0.5}$ : m	4.22 4.6 - 6.9	2.3 - 3.4	3.08 3.9 - 5.9	2.0 - 3.0	2.78 3.8 - 5.6	1.9 - 2.8	2.24 3.4 - 5.0	1.7 - 2.5	1.78 3.0 - 4.5	1.5 - 2.2
150	$v_{eff}$ .m/s $L_{0.75} - L_{0.5}$ : m	5.06 5.5 - 8.3	2.8 - 4.2	3.70 4.7 - 7.1	2.4 - 3.5	3.34 4.5 - 6.8	2.2 - 3.4	2.70 4.0 - 6.0	2.0 - 3.0	2.14 3.6 - 5.4	1.8 - 2.7
175	$v_{eff}$ .m/s $L_{0.75} - L_{0.5}$ : m	5.90 6.5 - 9.7	3.2 - 4.8	4.32 5.5 - 8.3	2.8 - 4.2	3.88 5.3 - 7.8	2.6 - 3.9	3.14 4.7 - 7.0	2.3 - 3.5	2.50 4.2 - 6.2	2.1 - 3.1
200	$v_{eff}$ .m/s $L_{0.75} - L_{0.5}$ : m	6.74 7.4 - 11.0	3.7 - 5.5	4.94 6.3 - 9.4	3.2 - 4.7	4.44 6.0 - 9.0	3.0 - 4.5	3.60 4.1 - 8.1	2.0 - 4.0	2.84 4.8 - 7.2	2.4 - 3.6
225	$v_{eff}$ .m/s $L_{0.75} - L_{0.5}$ : m	7.58 8.3 - 12.4	4.2 - 6.2	5.54 7.1 - 10.7	3.6 - 5.4	5.00 6.8 - 10.1	3.4 - 5.0	4.04 6.0 - 9.1	3.0 - 4.5	3.20 5.4 - 8.1	2.7 - 4.0
250	$v_{eff}$ .m/s $L_{0.75} - L_{0.5}$ : m	8.44 9.2 - 13.9	4.6 - 6.9	6.16 7.9 - 11.8	3.9 - 5.9	5.55 7.5 - 11.2	3.7 - 5.6	4.48 6.7 - 10.1	3.3 - 5.0	3.56 6.0 - 9.0	3.0 - 4.5
275	$v_{eff}$ .m/s $L_{0.75} - L_{0.5}$ : m	9.28 10.2 - 15.2	5.1 - 7.6	6.78 8.7 - 13.0	4.3 - 6.5	6.10 8.2 - 12.3	4.1 - 6.1	4.94 7.4 - 11.0	3.7 - 5.5	3.92 6.6 - 9.9	3.3 - 4.9
300	$v_{eff}$ .m/s $L_{0.75} - L_{0.5}$ : m	10.12 11.1 - 16.5	5.5 - 8.3	7.40 9.4 - 14.2	4.7 - 7.1	6.66 9.0 - 13.4	4.5 - 6.7	5.38 8.0 - 12.1	4.0 - 6.0	4.28 7.2 - 10.8	3.6 - 5.4
325	$v_{eff}$ .m/s $L_{0.75} - L_{0.5}$ : m			8.02 10.2 - 15.3	5.1 - 7.7	7.22 9.7 - 14.6	4.9 - 7.3	5.84 8.7 - 13.1	4.4 - 6.6	4.62 7.7 - 11.6	3.9 - 5.8
350	$v_{eff}$ .m/s $L_{0.75} - L_{0.5}$ : m			8.64 11.0 - 16.5	5.5 - 8.3	7.78 10.4 - 15.7	5.2 - 7.8	6.28 9.4 - 14.1	4.7 - 7.1	4.98 8.4 - 12.6	4.2 - 6.3
375	$v_{eff}$ .m/s $L_{0.75} - L_{0.5}$ : m			9.24 11.8 - 17.7	5.9 - 8.8	8.32 11.2 - 16.8	5.6 - 8.4	6.74 10.1 - 15.1	5.0 - 7.6	5.34 9.0 - 13.5	4.5 - 6.7
400	$v_{eff}$ .m/s $L_{0.75} - L_{0.5}$ : m			9.86 12.6 - 18.9	6.3 - 9.4	8.88 11.9 - 18.0	6.0 - 9.0	7.18 10.7 - 16.1	5.4 - 8.1	5.70 9.6 - 14.3	4.8 - 7.2
425	$v_{eff}$ .m/s $L_{0.75} - L_{0.5}$ : m			10.48 13.4 - 20.1	6.7 - 10.0	9.44 12.7 - 19.0	6.4 - 9.5	7.62 11.4 - 17.1	5.7 - 8.6	6.06 10.2 - 15.3	5.1 - 7.6
450	$v_{eff}$ .m/s $L_{0.75} - L_{0.5}$ : m					10.00 13.5 - 20.2	6.7 - 10.1	8.08 12.1 - 18.1	6.0 - 9.1	6.40 10.8 - 16.1	5.4 - 8.1
475	$v_{eff}$ .m/s $L_{0.75} - L_{0.5}$ : m							8.52 12.8 - 19.1	6.4 - 9.6	6.76 11.4 - 17.0	5.7 - 8.5
500	$v_{eff}$ .m/s $L_{0.75} - L_{0.5}$ : m							8.98 13.4 - 20.2	6.7 - 10.1	7.12 12.0 - 18.0	6.0 - 9.0
550	$v_{eff}$ .m/s $L_{0.75} - L_{0.5}$ : m									7.84 13.2 - 19.7	6.6 - 9.9

LpNC 45

LpNC 40

< LpNC 20

LpNC 20

LpNC 30

# Tabular Selection - Without Ceiling Effect

## 1.2 Supply Grilles Types AT - VAT - Aspect Ratio <12 :1

V Vs	List Sizes L x H (mm)	900 x 150		1000 x 150		900 x 200		1200 x 200		1000 x 300		LpNC 20
		700 x 200	550 x 250	600 x 250	500 x 300	700 x 250	600 x 300	800 x 300	700 x 350	600 x 400	900 x 350	
		450 x 300		400 x 350		450 x 400		500 x 500		600 x 500		
	Deflection β	0°	90°	0°	90°	0°	90°	0°	90°	0°	90°	
175	V <sub>eff</sub> .m/s L <sub>0.75</sub> - L <sub>0.5</sub> : m	2.04 3.8 - 5.7	1.9 - 2.8	1.88 3.6 - 5.4	1.8 - 2.7	1.56 3.3 - 4.9	1.7 - 2.4					
200	V <sub>eff</sub> .m/s L <sub>0.75</sub> - L <sub>0.5</sub> : m	2.34 4.3 - 6.5	2.2 - 3.3	2.16 4.2 - 6.2	2.1 - 3.1	1.78 3.8 - 5.7	1.9 - 2.8					
225	V <sub>eff</sub> .m/s L <sub>0.75</sub> - L <sub>0.5</sub> : m	2.62 4.9 - 7.3	2.5 - 3.7	2.42 4.7 - 7.0	2.3 - 3.5	2.00 4.3 - 6.4	2.1 - 3.2					
250	V <sub>eff</sub> .m/s L <sub>0.75</sub> - L <sub>0.5</sub> : m	2.92 5.4 - 8.2	2.7 - 4.1	2.70 5.3 - 7.8	2.6 - 3.9	2.22 4.8 - 7.1	2.4 - 3.6	1.62 4.0 - 6.1	2.0 - 3.1			
275	V <sub>eff</sub> .m/s L <sub>0.75</sub> - L <sub>0.5</sub> : m	3.20 6.0 - 8.9	3.0 - 4.5	2.96 5.8 - 8.6	2.9 - 4.3	2.44 5.2 - 7.8	2.6 - 3.9	1.78 4.5 - 6.7	2.2 - 3.3			
300	V <sub>eff</sub> .m/s L <sub>0.75</sub> - L <sub>0.5</sub> : m	3.50 6.5 - 9.7	3.3 - 4.9	3.24 6.2 - 9.4	3.1 - 4.7	2.66 5.7 - 8.5	2.8 - 4.3	1.94 4.8 - 7.3	2.4 - 3.6	1.50 4.3 - 6.4	2.1 - 3.2	
325	V <sub>eff</sub> .m/s L <sub>0.75</sub> - L <sub>0.5</sub> : m	3.78 7.0 - 10.5	3.5 - 5.3	3.50 6.7 - 10.2	3.4 - 5.0	2.88 6.1 - 9.2	3.1 - 4.6	2.10 5.3 - 7.9	2.6 - 3.9	1.62 4.5 - 6.9	2.3 - 3.4	
350	V <sub>eff</sub> .m/s L <sub>0.75</sub> - L <sub>0.5</sub> : m	4.08 7.6 - 11.4	3.8 - 5.7	3.78 7.3 - 10.9	3.9 - 5.5	3.10 6.6 - 9.9	3.3 - 5.0	2.26 5.7 - 8.4	2.8 - 4.2	1.76 5.0 - 7.5	2.5 - 3.7	
375	V <sub>eff</sub> .m/s L <sub>0.75</sub> - L <sub>0.5</sub> : m	4.36 8.1 - 12.1	4.0 - 6.1	4.04 7.8 - 11.7	3.9 - 5.9	3.32 7.1 - 10.6	3.6 - 5.3	2.42 6.0 - 9.1	3.0 - 4.5	1.88 5.3 - 7.9	2.7 - 4.0	
400	V <sub>eff</sub> .m/s L <sub>0.75</sub> - L <sub>0.5</sub> : m	4.66 8.6 - 13.0	4.3 - 6.5	4.32 8.3 - 12.6	4.2 - 6.3	3.54 7.5 - 11.3	3.8 - 5.6	2.58 6.5 - 9.7	3.2 - 4.8	2.00 5.7 - 8.4	2.8 - 4.2	
425	V <sub>eff</sub> .m/s L <sub>0.75</sub> - L <sub>0.5</sub> : m	4.96 9.2 - 13.8	4.6 - 6.9	4.58 8.9 - 13.3	4.4 - 6.6	3.76 8.0 - 12.0	4.0 - 6.0	2.74 6.8 - 10.3	3.4 - 5.1	2.12 6.0 - 9.0	3.0 - 4.5	
450	V <sub>eff</sub> .m/s L <sub>0.75</sub> - L <sub>0.5</sub> : m	5.24 9.7 - 14.6	4.9 - 7.3	4.86 9.4 - 14.1	4.7 - 7.1	3.98 8.4 - 12.7	4.2 - 6.4	2.90 7.2 - 10.9	3.6 - 5.4	2.26 6.4 - 9.6	3.2 - 4.8	
475	V <sub>eff</sub> .m/s L <sub>0.75</sub> - L <sub>0.5</sub> : m	5.54 10.3 - 15.4	5.1 - 7.7	5.12 9.9 - 14.8	5.0 - 7.4	4.20 8.9 - 13.4	4.5 - 6.7	3.06 7.7 - 11.5	3.8 - 5.8	2.38 6.7 - 10.1	3.4 - 5.0	
500	V <sub>eff</sub> .m/s L <sub>0.75</sub> - L <sub>0.5</sub> : m	5.82 10.8 - 16.2	5.4 - 8.1	5.40 10.4 - 15.7	5.2 - 7.8	4.44 9.4 - 14.2	4.7 - 7.1	3.22 8.0 - 12.0	4.0 - 6.0	2.50 7.1 - 10.7	3.6 - 5.3	
550	V <sub>eff</sub> .m/s L <sub>0.75</sub> - L <sub>0.5</sub> : m	6.40 11.9 - 17.8	6.0 - 8.9	5.92 11.4 - 17.2	5.7 - 8.6	4.88 10.4 - 15.6	5.2 - 7.8	3.54 8.9 - 13.3	4.4 - 6.6	2.76 7.8 - 11.7	3.9 - 5.9	
600	V <sub>eff</sub> .m/s L <sub>0.75</sub> - L <sub>0.5</sub> : m	7.00 13.0 - 19.5	6.5 - 9.8	6.46 12.5 - 18.7	6.2 - 9.4	5.32 11.4 - 17.0	5.7 - 8.5	3.86 9.7 - 14.5	4.8 - 7.2	3.00 8.5 - 12.8	4.3 - 6.4	
650	V <sub>eff</sub> .m/s L <sub>0.75</sub> - L <sub>0.5</sub> : m	7.58 14.1 - 21.1	7.0 - 10.5	7.00 13.6 - 20.3	6.8 - 10.2	5.76 12.3 - 18.4	6.1 - 9.2	4.20 10.4 - 15.8	5.2 - 7.9	3.26 9.2 - 13.8	4.6 - 6.9	
700	V <sub>eff</sub> .m/s L <sub>0.75</sub> - L <sub>0.5</sub> : m	8.16 15.2 - 22.7	7.6 - 11.4	7.54 14.6 - 21.9	7.3 - 10.9	6.20 13.2 - 19.8	6.6 - 9.8	4.52 11.3 - 17.0	5.6 - 8.5	3.50 9.9 - 14.9	5.0 - 7.5	
750	V <sub>eff</sub> .m/s L <sub>0.75</sub> - L <sub>0.5</sub> : m	8.74 16.3 - 24.4	8.1 - 12.2	8.08 15.6 - 23.4	7.8 - 11.7	6.64 14.1 - 21.2	7.1 - 10.6	4.84 12.0 - 18.2	6.0 - 9.1	3.76 10.7 - 16.0	5.3 - 8.0	LpNC 20
800	V <sub>eff</sub> .m/s L <sub>0.75</sub> - L <sub>0.5</sub> : m			8.62 16.7 - 25.0	8.3 - 12.5	7.10 15.1 - 22.7	7.6 - 11.4	5.16 12.9 - 19.3	6.5 - 9.7	4.00 11.3 - 17.0	6.7 - 8.5	LpNC 20

LpNC 40

LpNC 30

# Tabular Selection - Without Ceiling Effect

## 1.3 Supply Grilles Types AT · VAT - Aspect Ratio <12 :1

V̇ l/s	List Sizes L x H (mm)	1100 x 350 900 x 400 800 x 450 700 x 550 600 x 600		1200 x 300 800 x 550 700 x 600		1200 x 400 1100 x 450 1000 x 500 900 x 550 800 x 600		1200 x 500 1100 x 550 1000 x 600		1200 x 600		
		Deflection β		0°	90°	0°	90°	0°	90°	0°	90°	0°
400	v <sub>eff</sub> -m/s L <sub>0.75</sub> - L <sub>0.5</sub> : m	1.66										
425	v <sub>eff</sub> -m/s L <sub>0.75</sub> - L <sub>0.5</sub> : m	1.78	2.6 - 3.9	1.52								
450	v <sub>eff</sub> -m/s L <sub>0.75</sub> - L <sub>0.5</sub> : m	1.88	2.8 - 4.2	1.62								
475	v <sub>eff</sub> -m/s L <sub>0.75</sub> - L <sub>0.5</sub> : m	1.98	2.9 - 4.4	1.70								
500	v <sub>eff</sub> -m/s L <sub>0.75</sub> - L <sub>0.5</sub> : m	2.08	3.1 - 4.6	1.80		1.56						
550	v <sub>eff</sub> -m/s L <sub>0.75</sub> - L <sub>0.5</sub> : m	2.30	3.2 - 4.8	1.98	2.8 - 4.2	1.70						
600	v <sub>eff</sub> -m/s L <sub>0.75</sub> - L <sub>0.5</sub> : m	2.50	3.0 - 4.5	2.16	5.6 - 8.4	1.86	1.52					
650	v <sub>eff</sub> -m/s L <sub>0.75</sub> - L <sub>0.5</sub> : m	2.70	6.0 - 9.0	2.34	3.0 - 4.5	2.02	1.64					
700	v <sub>eff</sub> -m/s L <sub>0.75</sub> - L <sub>0.5</sub> : m	2.92	6.6 - 9.9	2.52	3.3 - 5.0	2.18	1.76					
750	v <sub>eff</sub> -m/s L <sub>0.75</sub> - L <sub>0.5</sub> : m	3.12	6.1 - 9.2	2.70	6.1 - 9.2	2.34	1.90	1.58				
800	v <sub>eff</sub> -m/s L <sub>0.75</sub> - L <sub>0.5</sub> : m	3.34	6.6 - 9.9	2.88	6.6 - 9.9	2.48	1.68					
850	v <sub>eff</sub> -m/s L <sub>0.75</sub> - L <sub>0.5</sub> : m	3.54	7.2 - 10.8	3.04	3.6 - 5.4	2.64	1.78					
900	v <sub>eff</sub> -m/s L <sub>0.75</sub> - L <sub>0.5</sub> : m	3.76	7.2 - 10.8	3.22	6.7 - 10.0	2.80	1.90					
950	v <sub>eff</sub> -m/s L <sub>0.75</sub> - L <sub>0.5</sub> : m	3.96	7.8 - 11.7	3.40	3.9 - 5.9	2.96	2.00					
1000	v <sub>eff</sub> -m/s L <sub>0.75</sub> - L <sub>0.5</sub> : m	4.18	7.8 - 11.7	3.58	7.8 - 11.7	3.10	2.10					
1050	v <sub>eff</sub> -m/s L <sub>0.75</sub> - L <sub>0.5</sub> : m	4.38	8.4 - 12.6	3.76	3.9 - 5.9	3.26	2.20					
1100	v <sub>eff</sub> -m/s L <sub>0.75</sub> - L <sub>0.5</sub> : m	4.58	8.4 - 12.6	3.94	7.8 - 11.7	3.42	2.32					
1150	v <sub>eff</sub> -m/s L <sub>0.75</sub> - L <sub>0.5</sub> : m	4.80	9.1 - 13.6	4.12	4.2 - 6.3	3.58	2.42					
1200	v <sub>eff</sub> -m/s L <sub>0.75</sub> - L <sub>0.5</sub> : m	5.00	9.1 - 13.6	4.30	8.4 - 12.6	3.74	2.52					
1250	v <sub>eff</sub> -m/s L <sub>0.75</sub> - L <sub>0.5</sub> : m	5.22	9.9 - 14.6	4.48	4.2 - 6.3	3.88	2.62					

LpNC 20

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LpNC 20

# Technical Data · Linear Grilles · Aspect Ratio >14:1

## Linear Grilles Type AH · AF · WAP

### Throw

For continuous linear grilles throw distances  $L_{0.5}$  and  $L_{0.75}$  have been based on with ceiling effect. Where non effective lengths are interposed within the continuous run the max/min length of non effective section should not exceed  $0.1 \times$  throw  $L$  for the tabulated values to be valid.

### Noise Levels

These are based on the volume controller of the AG or DG construction being 100% open. For effect of closing the damper and sound power level spectra refer to leaflet 1/1.1/B/1.

Tabulated values of  $L_{pNC}$  are based on grille length  $L_1$  of 3m.

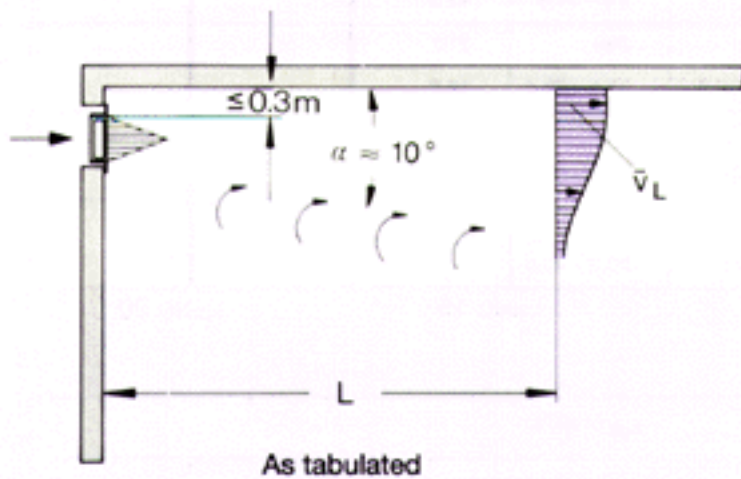
### Correction Values for $L_1$

Grille Length $L_1$ (m)	2	2.5	3.0	4.0
$L_{pNC}$ dB	-2	-1	0	+1

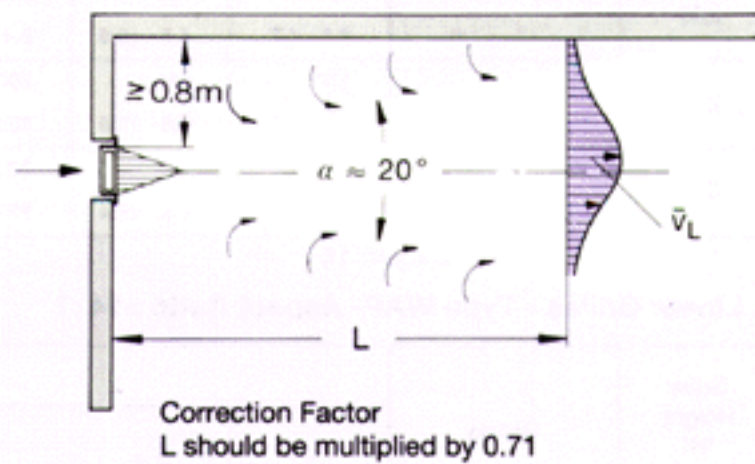
### Ceiling Effect

Reference should be made to leaflet 1/1.1/B/1 to determine whether ceiling effect is maintained with the selected supply air temperature differential.

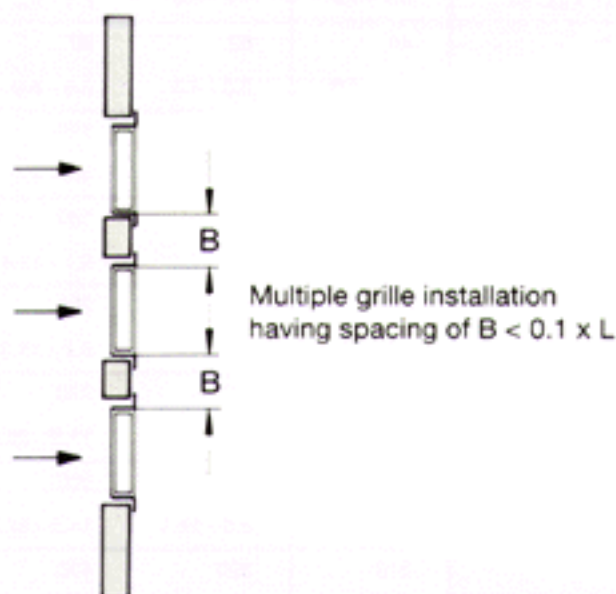
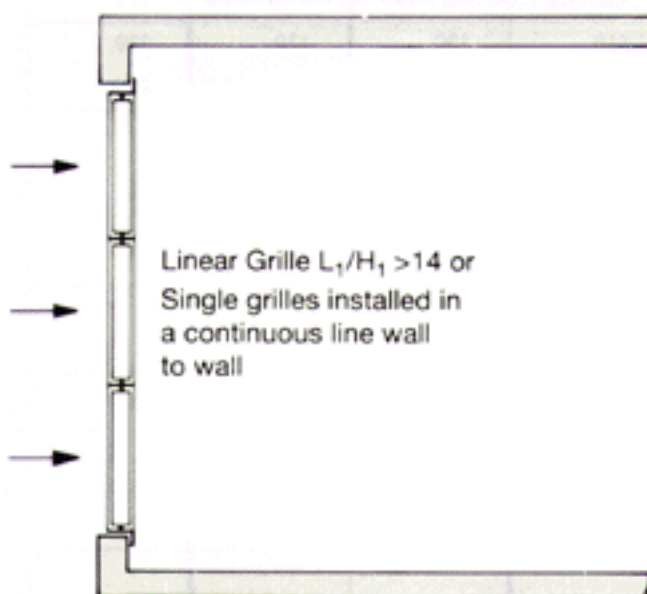
### Installation with ceiling effect



### Installation without ceiling effect



### Installation of Linear Grilles :



# Tabular Selection - With Ceiling Effect

## 2. Linear Grilles - Types AF · AH - Aspect Ratio >14 :1

Grille Height 'H' (mm)	Rating	$v_{eff}$ in m/s						
		1	1.5	2	2.5	3	4	5
50	$\dot{V}$ : l/s	20	30	40	50	60	80	100
	$L_{0.75} - L_{0.5}$ : m	0.4 - 0.9	0.9 - 2.1	1.6 - 3.7	2.6 - 5.8	3.7 - 8.3	6.5 - 14.7	10.2 - 23
62.5	$\dot{V}$ : l/s	30	40	50	70	80	110	140
	$L_{0.75} - L_{0.5}$ : m	0.5 - 1.3	1.2 - 2.8	2.2 - 5.0	3.4 - 7.8	4.9 - 11.3	8.8 - 20.1	13.7
75	$\dot{V}$ : l/s	30	50	70	80	100	130	170
	$L_{0.75} - L_{0.5}$ : m	0.7 - 1.5	1.5 - 3.5	2.7 - 6.2	4.2 - 9.6	6.1 - 13.8	10.9 - 24.6	17.0
87.5	$\dot{V}$ : l/s	40	60	80	100	120	160	200
	$L_{0.75} - L_{0.5}$ : m	0.8 - 1.8	1.9 - 4.2	3.3 - 7.4	5.2 - 11.6	7.5 - 16.6	13.2	20.7
100	$\dot{V}$ : l/s	50	70	90	120	140	190	
	$L_{0.75} - L_{0.5}$ : m	0.9 - 2.2	2.2 - 4.9	3.8 - 8.6	6.0 - 13.5	8.6 - 19.4	15.4	
150	$\dot{V}$ : l/s	80	110	150	190	230		
	$L_{0.75} - L_{0.5}$ : m	1.5 - 3.5	3.5 - 7.8	6.2 - 13.8	9.6 - 21.6	13.8		
200	$\dot{V}$ : l/s	100	150	200	260	310		
	$L_{0.75} - L_{0.5}$ : m	2.1 - 4.7	4.7 - 10.6	8.4 - 18.8	13.1 - 29.4	18.9		
250	$\dot{V}$ : l/s	130	200	260	330			
	$L_{0.75} - L_{0.5}$ : m	2.7 - 6.0	6.0 - 13.5	10.6 - 24.0	16.6 - 37.5			
300	$\dot{V}$ : l/s	160	240	320	400			
	$L_{0.75} - L_{0.5}$ : m	3.2 - 7.3	7.3 - 16.4	13.0 - 29.2	20.3 - 45.6			

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LpNC 15

LpNC 20

## 3. Linear Grilles - Type WAP- Aspect Ratio >14 :1

Grille Height 'H' (mm)	Rating	$v_{eff}$ in m/s						
		1	1.5	2	2.5	3	4	5
50	$\dot{V}$ : l/s	30	40	50	60	80	100	130
	$L_{0.75} - L_{0.5}$ : m	0.5 - 1.1	1.2 - 2.6	2.1 - 4.6	3.2 - 7.2	4.7 - 10.3	8.3 - 18.3	13.0 - 28.6
62.5	$\dot{V}$ : l/s	30	50	70	90	100	140	170
	$L_{0.75} - L_{0.5}$ : m	0.7 - 1.6	1.6 - 3.5	2.8 - 6.3	4.3 - 9.8	6.2 - 14.1	11.0 - 25.0	17.2
75	$\dot{V}$ : l/s	40	60	90	110	130	170	220
	$L_{0.75} - L_{0.5}$ : m	0.9 - 2.0	2.0 - 4.5	3.5 - 8.0	5.5 - 12.4	8.0 - 17.9	14.1 - 31.8	22.1
87.5	$\dot{V}$ : l/s	50	80	110	130	160	210	
	$L_{0.75} - L_{0.5}$ : m	1.1 - 2.4	2.4 - 5.5	4.3 - 9.5	6.8 - 15.2	9.7 - 21.9	17.3 - 38.9	
100	$\dot{V}$ : l/s	60	90	120	160	190	250	
	$L_{0.75} - L_{0.5}$ : m	1.3 - 2.9	2.9 - 6.4	5.1 - 11.4	8.0 - 17.9	11.5 - 25.7	20.4	
150	$\dot{V}$ : l/s	100	150	200	250	300		
	$L_{0.75} - L_{0.5}$ : m	2.0 - 4.6	4.6 - 10.3	8.2 - 18.3	12.8 - 28.6	18.4		
200	$\dot{V}$ : l/s	140	210	270	340			
	$L_{0.75} - L_{0.5}$ : m	2.8 - 6.4	6.4 - 14.3	11.3 - 25.4	17.6 - 39.7			
250	$\dot{V}$ : l/s	180	260	350	440			
	$L_{0.75} - L_{0.5}$ : m	3.6 - 8.1	8.0 - 18.1	14.3 - 32.3	22.3			
300	$\dot{V}$ : l/s	210	320	430				
	$L_{0.75} - L_{0.5}$ : m	4.4 - 9.8	9.8 - 22.0	17.4 - 39.2				

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