**DESCRIPTION:**

SSG : Stainless Steel Double deflection Supply Grilles, with adjustable horizontal and vertical blades

SSG-Y : Stainless Steel Double deflection Supply Grilles, with adjustable horizontal and vertical blades, horizontal blades in front.

SSG-D : Stainless Steel Double deflection Supply Grilles, with adjustable horizontal and vertical blades, vertical blades in front.

MATERIAL:

All Type 304 Stainless Steel Construction. Optional Upgrades; Type 316 Stainless, Satin Finish

APPLICATION:

The grilles type PDM is used for the supply of cooled and heated air in facilities such as offices, shopping centres workshop... The grille can be used for wall or exposed duct mounting . The horizontal and vertical blades can be adjusted manually and individually to obtain an optimal air distribution suitable for room $3\pm 0,5m$.

FINISHING:

- Standard Finishes Polished Stainless Steel
- Optional Anti-microbial White Powder Coat Finish
- Optional Powder Coat Finishes

INSTALLATION:

- System with screws is standard.
- System with clips and plate spring is used if no hole is requested on the frame

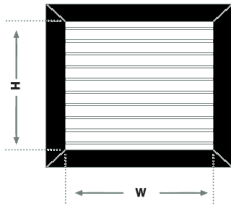
ACCESSORIES:

If desired, it is possible to add a damper to adjust the amount of air to be collected.

- PKD: Stainless Steel Parallel Blade Damper
- PK: Stainless Steel Plenum Box



STANDARD SIZES (mm) :

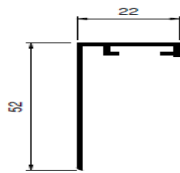


W : 200-250-300-350-400-450-500-550-600-650-700-750-800-900-1000

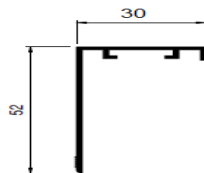
H : 75-100-150-200-300-400-500

* Any combination of these sizes

FRAME TYPES:

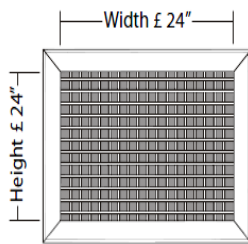


22mm frame

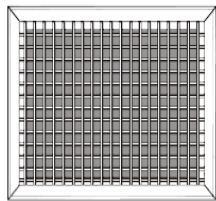


30mm frame

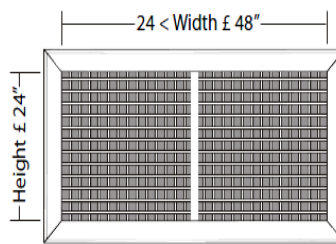
DRAWINGS:



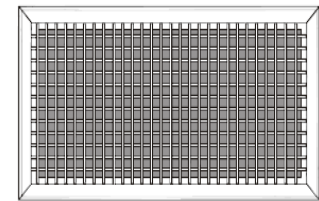
FRONT



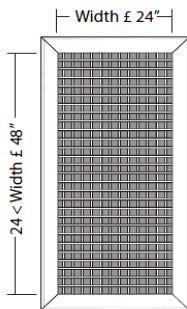
BACK



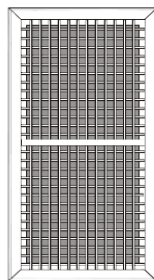
FRONT



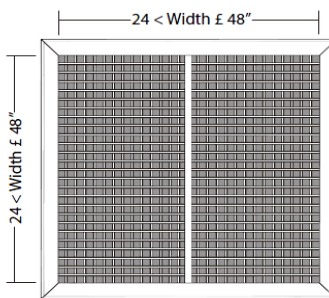
BACK



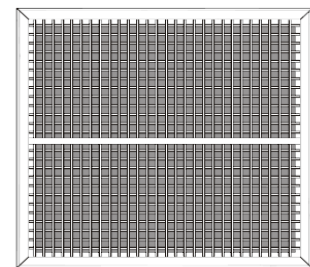
FRONT



BACK



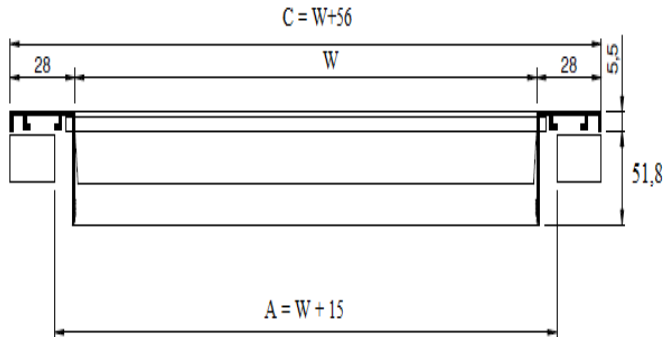
FRONT



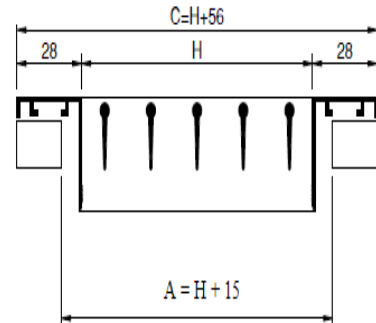
BACK



SSG - SUPPLY GRILLES DIMENSIONS :



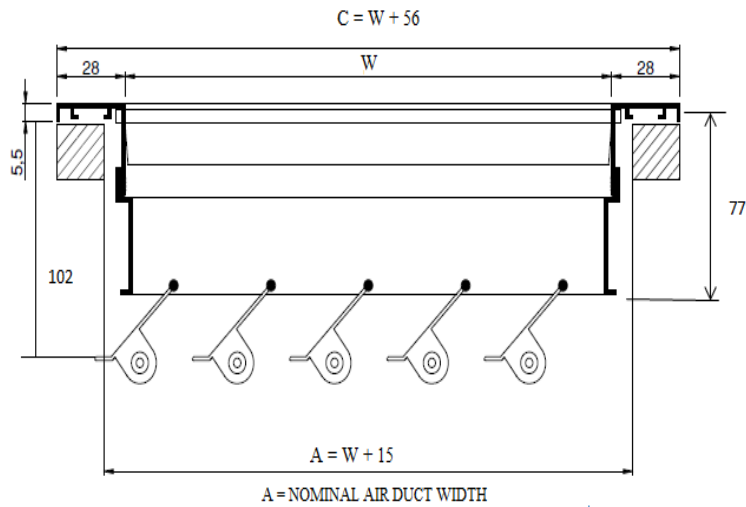
A : Nominal Air Duct Width



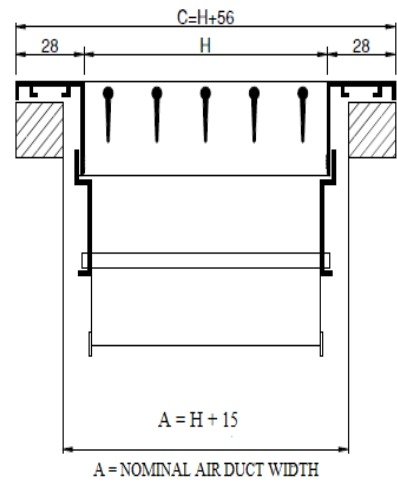
A : Nominal Air Duct Width

SUPPLY GRILLES WITH PARALLEL BLADE DAMPER DIMENSIONS

SSG-PKD



A = NOMINAL AIR DUCT WIDTH



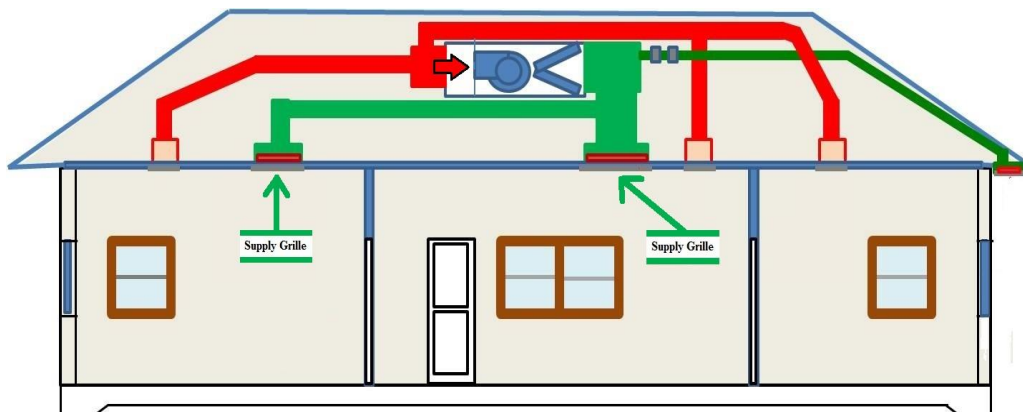
A = NOMINAL AIR DUCT WIDTH



Table-2

GRILLE SELECTION

- 1- Determine the air volume according to the place and number of the grilles.
- 2- Select the velocity according to the used area.
- 3- Determine the effective area from air volume and velocity values.
- 4- Find the size from effective area table.



DATA DIAGRAMS

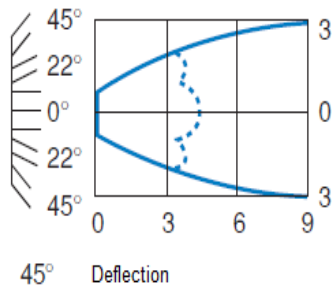
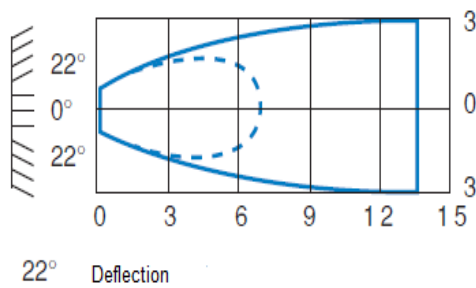
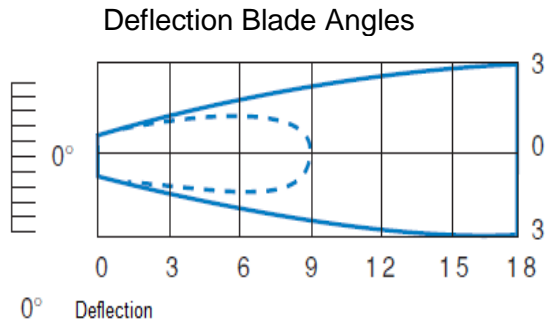
EFFECTIVE AREA

		H (mm)												
		100	150	200	250	300	350	400	450	500	600	700	800	900
W (mm)	100	0,006	0,009	0,012	0,015	0,018	0,021	0,024	0,027	0,030	0,036	0,042	0,048	0,054
	150	0,009	0,014	0,019	0,023	0,028	0,033	0,037	0,042	0,047	0,056	0,065	0,074	0,83
	200	0,012	0,019	0,026	0,031	0,038	0,044	0,050	0,056	0,063	0,075	0,088	0,100	0,112
	250	0,015	0,023	0,031	0,039	0,047	0,054	0,062	0,069	0,077	0,092	0,107	0,123	0,138
	300	0,018	0,028	0,038	0,047	0,056	0,065	0,075	0,083	0,093	0,112	0,130	0,148	0,167
	350	0,021	0,033	0,044	0,054	0,065	0,075	0,086	0,096	0,107	0,129	0,150	0,171	0,192
	400	0,024	0,037	0,050	0,062	0,075	0,086	0,099	0,111	0,124	0,148	0,172	0,197	0,221
	450	0,027	0,042	0,056	0,069	0,083	0,096	0,111	0,123	0,138	0,165	0,192	0,219	0,247
	500	0,030	0,047	0,063	0,077	0,093	0,107	0,124	0,138	0,154	0,184	0,215	0,245	0,276
	600	0,036	0,056	0,075	0,092	0,112	0,129	0,148	0,165	0,184	0,221	0,257	0,294	0,330
	700	0,042	0,065	0,088	0,107	0,130	0,150	0,172	0,192	0,215	0,257	0,300	0,342	0,384
	800	0,048	0,074	0,100	0,123	0,148	0,171	0,197	0,219	0,245	0,294	0,342	0,390	0,439
900	0,054	0,083	0,112	0,138	0,167	0,192	0,221	0,247	0,276	0,330	0,384	0,439	0,493	
1000	0,060	0,093	0,125	0,153	0,185	0,213	0,246	0,274	0,306	0,366	0,427	0,487	0,548	
1100	0,066	0,102	0,137	0,168	0,204	0,235	0,270	0,301	0,336	0,403	0,469	0,536	0,602	
1200	0,072	0,111	0,150	0,183	0,222	0,256	0,294	0,328	0,367	0,439	0,512	0,584	0,656	

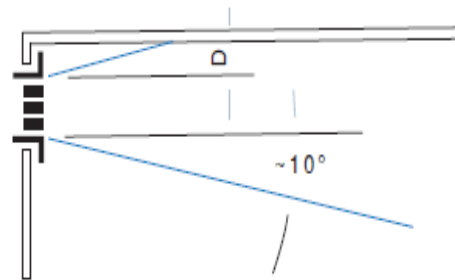
Table-3



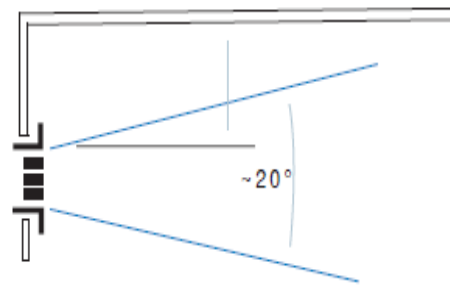
BLOWING DISTANCE



Ceiling Effect



A) with ceiling Effect
D = max. 0.30 m
Table - 3



B) without ceiling Effect
D = min. 0.90 m
Table-3

For different wing angles, correction table

Üfleme Açısı	22°	45°
Lt	x 0,77	x 0,55
Vk	x 1,15	x 1,25
Pt	x 1,3	x 1,6
NR	+3	+5

Table -4

Vt (m/s) for correction table

Vt (m/s)	0,25	0,375	0,5	0,625	
Lt	A	x 1	x 0,67	x 0,5	x 0,4
	B	x 0,7	x 0,47	x 0,35	x 0,28

Table -5



SELECTION DIAGRAM

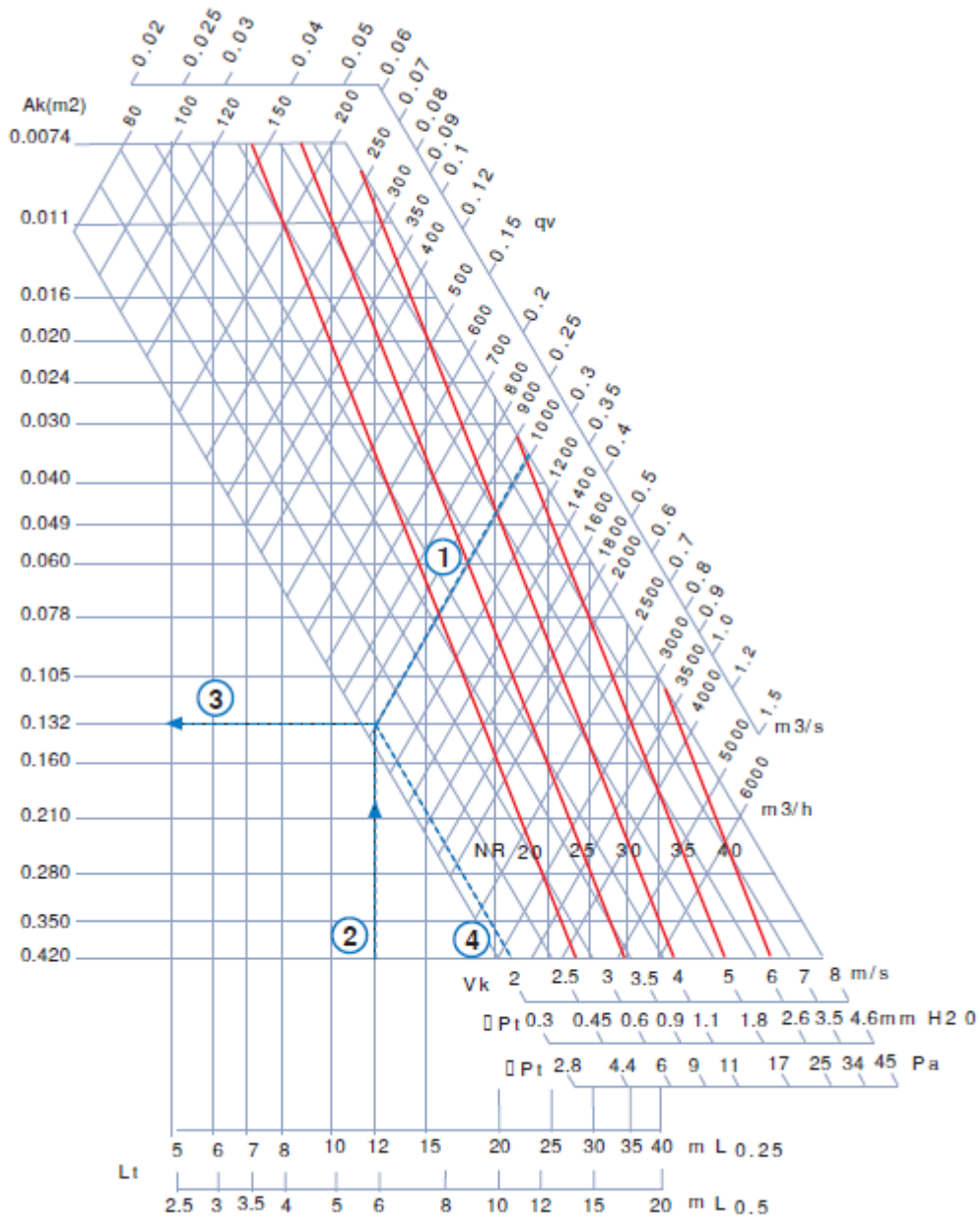
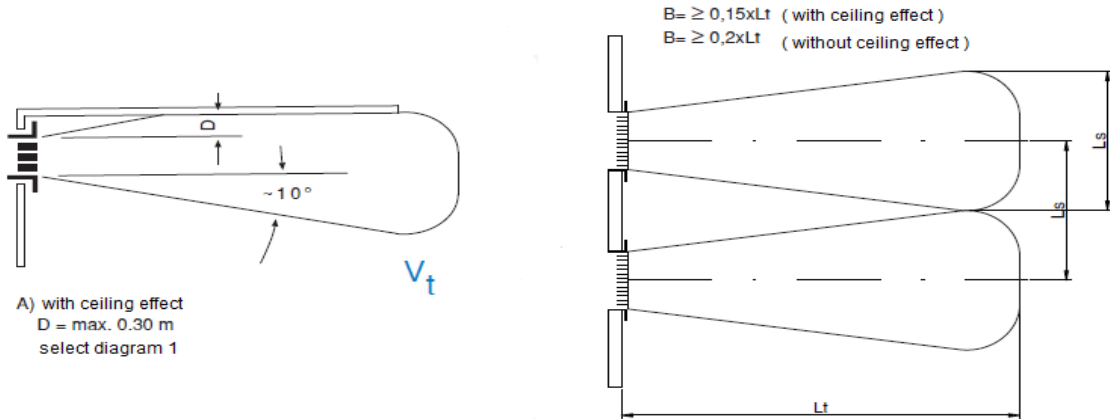


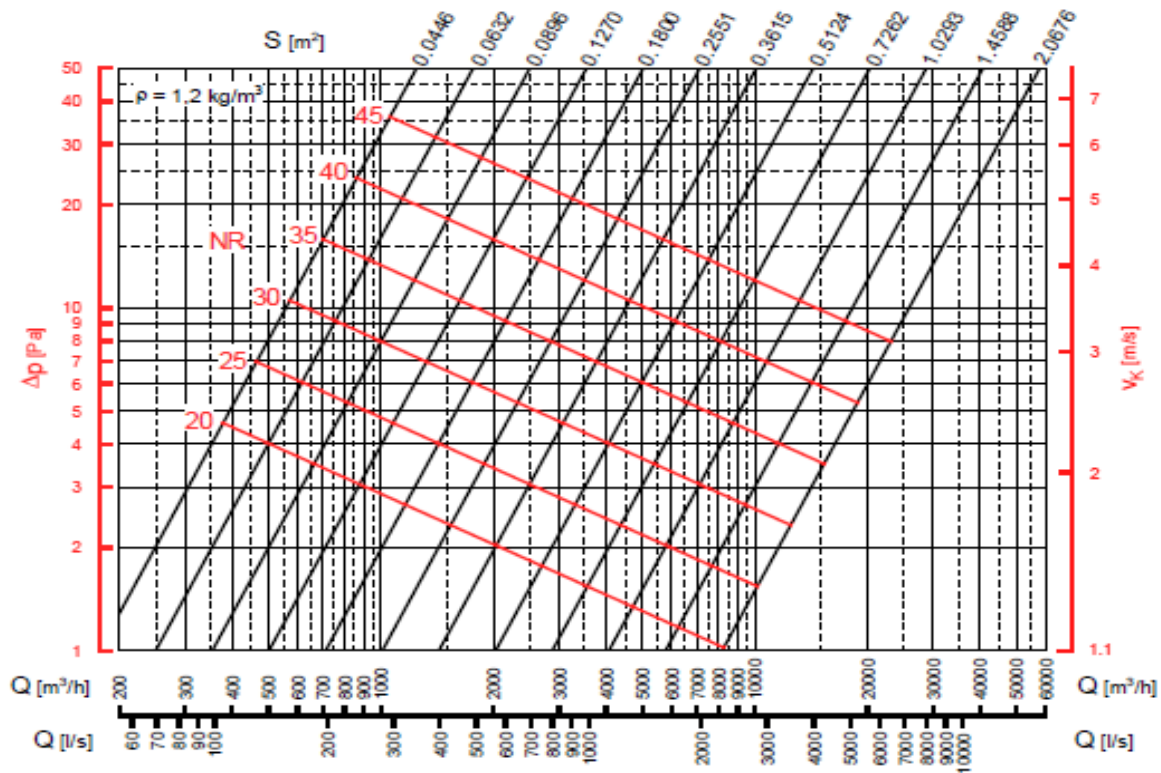
Diagram - 1

Note:

- 1 - The values in the selection diagram are calculated including the ceiling effect.
- 2 - The ceiling height is accepted as 3 ± 0,5m.
- 3 - Air Damper is calculated as 100% open.



PRESSURE LOSS AND NOISE LEVELS



- Q [m³/h] supply air flow rate
- S [m²] effective outlet area
- v_k [m/s] velocity relating to the effective outlet area S
- Δp [Pa] total pressure loss
- NR noise rating (ISO standard, in relation to 10^{-12} W) taking no account of the attenuation of the room
- D [°] angle of deflection of the fins



AIR FALL DIAGRAM

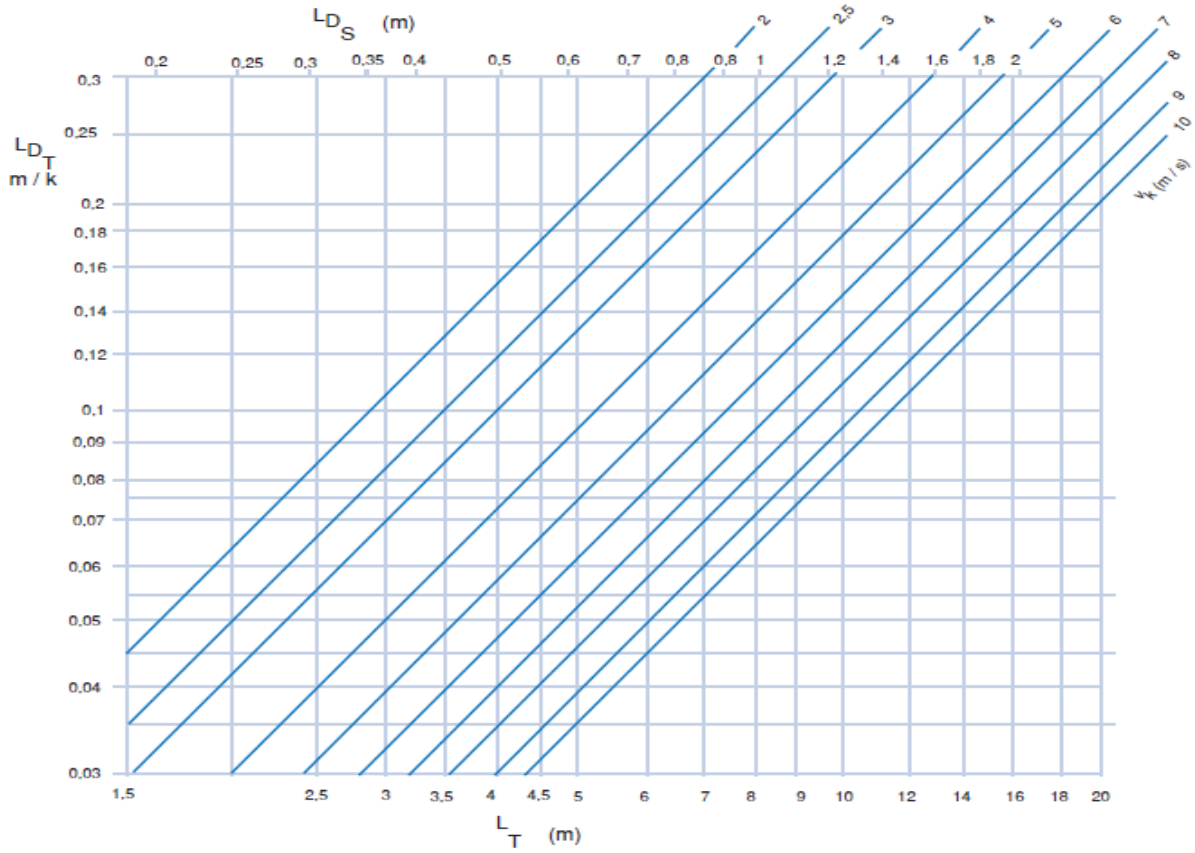
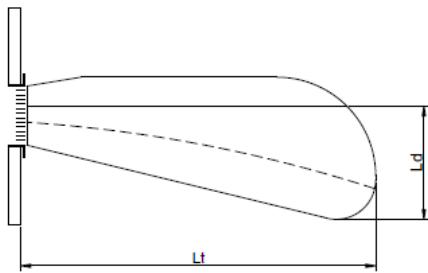


Diagram - 2

AIR FALL



Description :

The total air drop is the vertical distance between the air drop center and the lowest point to the air drop V_t (m / s). Total air loss consists of two components.

$$L_d = L_{ds} + L_{dt}$$

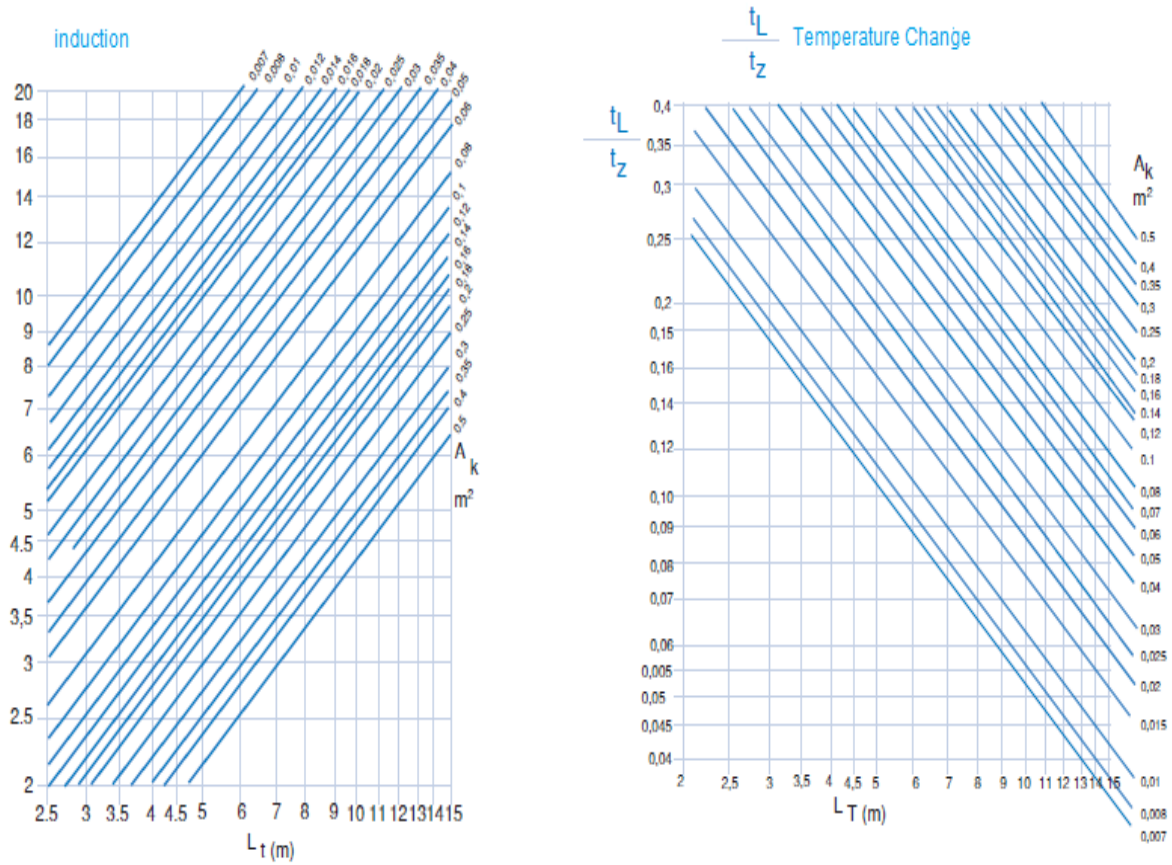


Diagram -3

T_L / T_z : Temperature Change

T_L (K) : Maximum temperature difference between room temperature and air temperature

T_z (K) : Maximum temperature difference between room temperature and distributor air temperature

I : induction

Sample Grille Selection:

$Q_v = 1000 \text{ m}^3/\text{h}$, Room Length: 12 m, $V_t : 0,25$

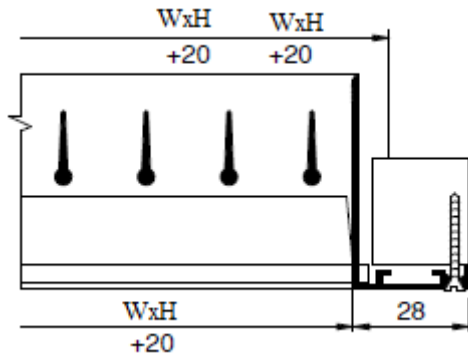
Result :

Diagram 1 for ; $A_k : 0,132\text{m}^2$ (3) , $W \times H : 1200 \times 150\text{mm}$, $P_t : 2,8 \text{ Pa}$, $L_t : 12\text{m}$, $V_k : 2,1\text{m/s}$ (4) Selection

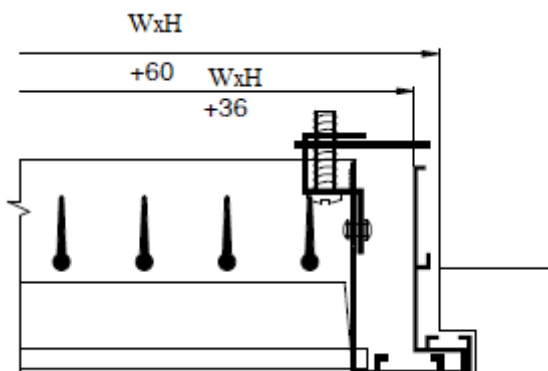


MOUNTING DETAILS

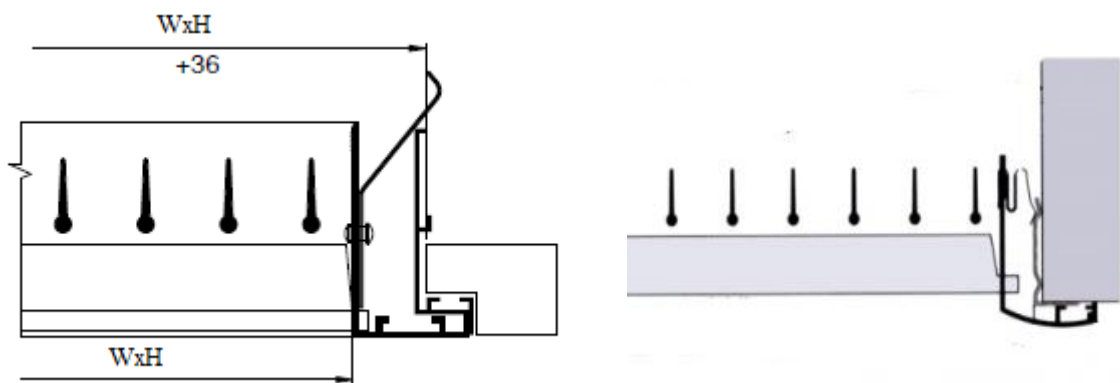
1. Screw Mounting Details



2. Clips Mounting Details

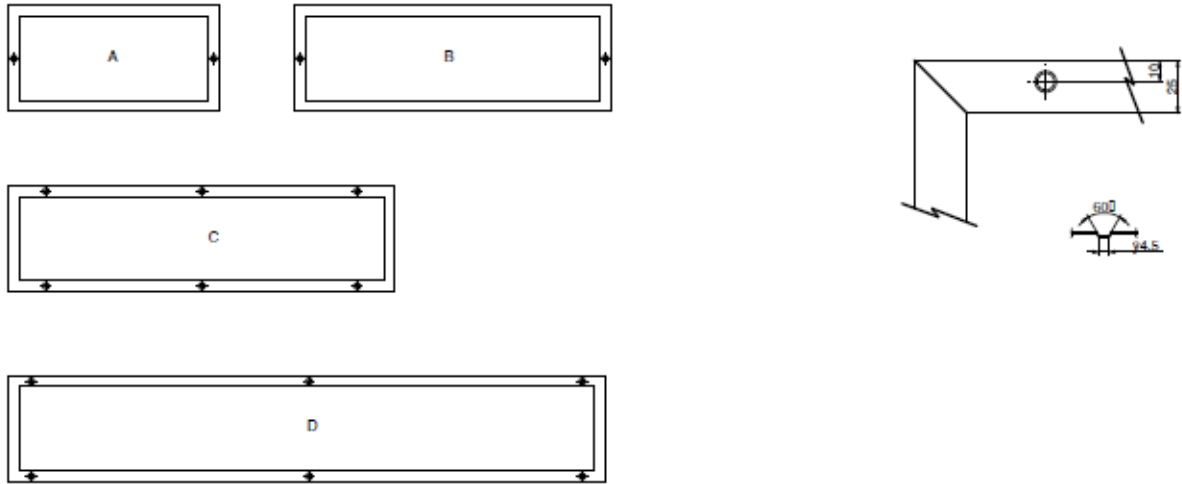


3. Spring Mounting Details



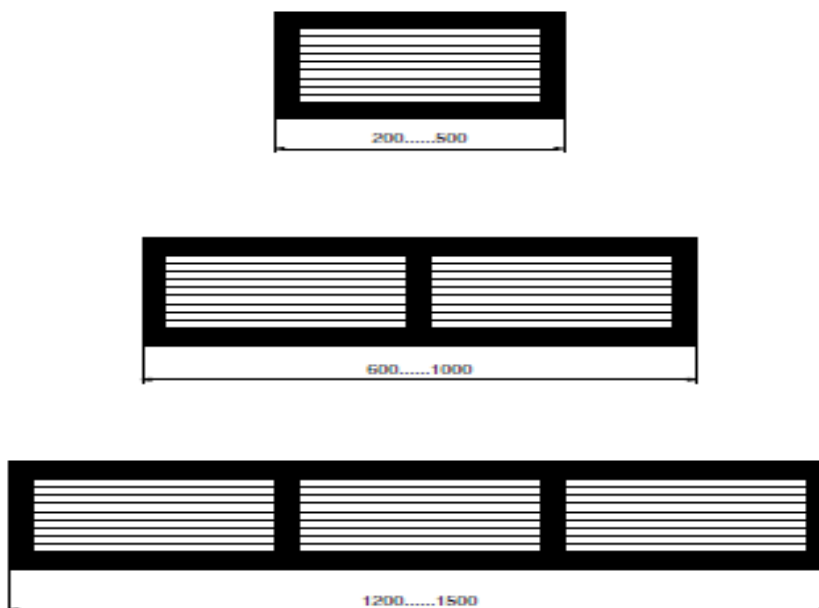


SCREW MOUNTING HOLE PALACEMENT



W / L	200	250	300	400	500	600	800	1000	1200	1500
100	A	A	A	A	A	C	C	C	D	D
150		A	A	A	A	C	C	C	D	D
200				B	B	C	C	C	D	D
300					B	C	C	C	D	D

SUPPORT PLACEMENT

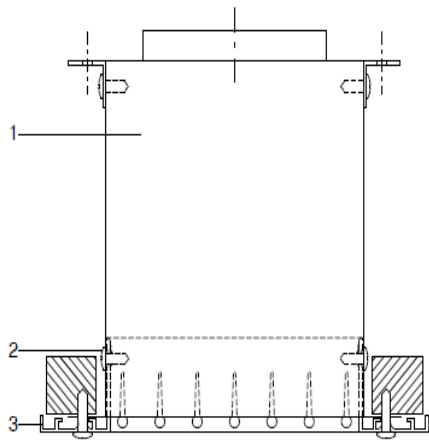




PLENUM BOX MOUNTING DETAILS

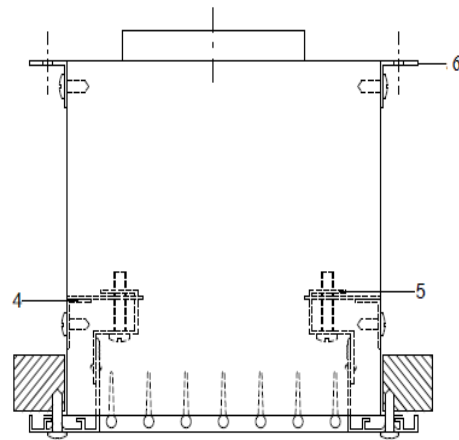
1 - TOP ENTRY PLENUM BOX MOUNTING DETAILS

SUPPLY GRILE + PLENUM BOX
STANDARD MOUNTING



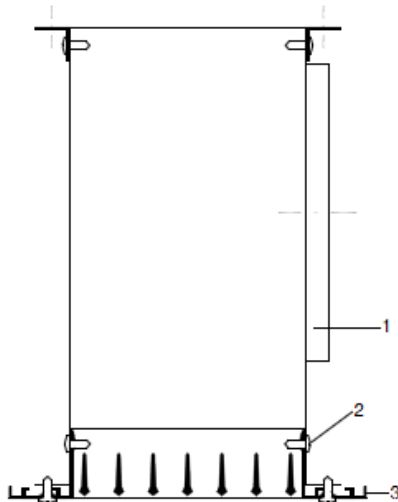
- 1 - Plenum Box
- 2 - Screw
- 3 - Supply Grille
- 4 - Profil for clips
- 5 - Clips
- 6 - Hook Pieces

SUPPLY GRILE + PLENUM BOX
STANDAD CLIPS MOUNTING



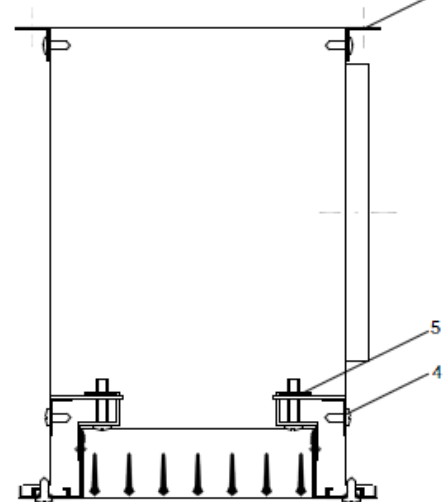
2 - SID ENTRY PLENUM BOX MOUNTING DETAILS

SUPPLY GRILE + PLENUM BOX
STANDARD MOUNTING



- 1 - Plenum Box
- 2 - Screw
- 3 - Supply Grille
- 4 - Profil for Clips
- 5 - Clips
- 6 - Hook Pieces

SUPPLY GRILE + PLENUM BOX
CLIPS MOUNTING





ORDER CODE

SSG	Y	30	PKD	PSS-304	VD	W 300X200
SSG-Y: Horizontal Blade in front SSG-D: Vertical Blade in front						W: Neck Size C: Frame Size
22: Frame=22mm 30: Frame=30mm						00: without Mounting VD: Screw Mounting KL: Clips Mounting ST: Spring Mounting
00: without Damper PKD: Parallel Blade Damper			PSS: Polished Stainless Steel APC: Anti-microbial White Powder Coat Finish OPC -: Optional Powder Coat Finishes - Standart 304 Stainless Steel Construction - Opsiyonel 316 Stainless Steel Construction			