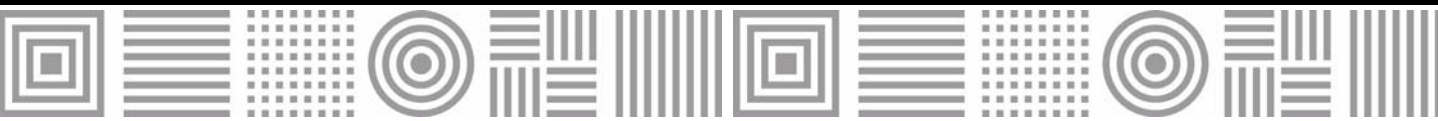


MADEL®



DMT fixed blades return grilles at 45°



MADEL®

The **DMT** series grilles are designed to be used in extractors of cold and hot air.

According to the model, they are mounted on walls, ceilings or false ceilings.

Their fixed blades at 45° guarantee an uniform air return in all the step section at the same time that prevent the vision through the grille.

Models:

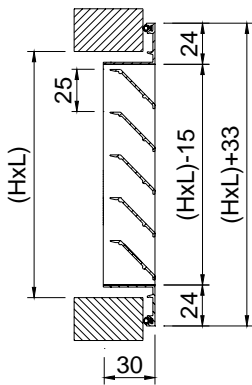
DMT

DMT-KLIN

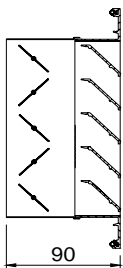
DMT-MOD



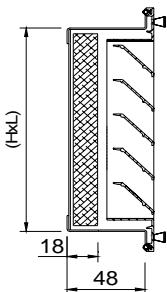
DMT-AR



DMT-AR+SP



DMT-AR+PFT



DMT

Classification

DMT-AR Grilles with blades fixed at 45°, parallel to the longer side.

EMT-AR Grilles with blades fixed at 45°, parallel to the shorter side.

Material

Grilles constructed from extruded aluminium. All grilles are provided with a seal on the back of the frame in order that the perimeter in contact with walls, ceiling, ducts, etc... is airtight.

Additional accessories

SP Opposed blades damper to regulate the air flow. The damper is operated by an easily accessible key inside the grille. Constructed from electro-zinc steel, painted in black colour. The damper is held in place by "S" springs.

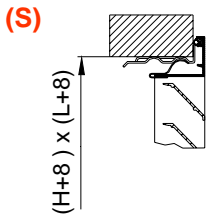
SPM-A Operated by means of an external key.

MLL Galvanised mesh of 13x13 fixed to the grille.

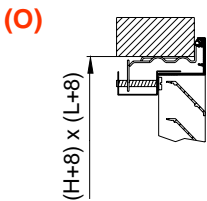
PFT Filter box made in galvanised steel with mesh and filter included (K/8 efficiency EN 779 G3). The grille is held in place by threaded knobs.

CM Mounting frame constructed from galvanised steel. It is delivered in 4 linear elements to assemble. When assembling with metallic frame, measures H and L increase 8 mm.

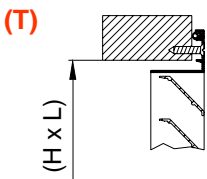
Fixing systems



(S) The grille is fixed in place with clips.
It requires the CM mounting frame.



(O) The grille is fixed in place by a hidden screw.
It requires the CM mounting frame.



(T) The grille is fixed in place with screws.

1) The filter box is fixed in place with screws or sidepieces. The grille is held to the PFT by threaded knobs.

Finishes

AA Matt silver anodised.

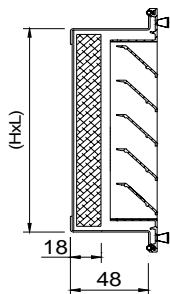
M9016 Painted in white similar to RAL 9016.

RAL... Painted in other RAL colours.

Specification text

Supply and mounting of air return grille with fixed blades at 45° parallels to the largest side series **DMT-AR+SP+CM (S) M9016 dim. LxH**, constructed from aluminium paint in white **M9016** with opposed blades volume damper from electro-zinc steel in black colour **SP**, invisible fixing by clips **(S)** and mounting frame **CM**. Manufacturer **MADEL**.

DMT-AR+PFT



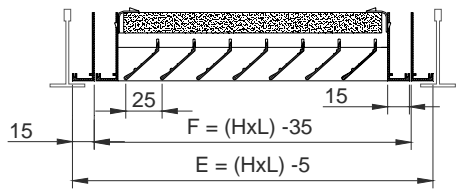


DMT-KLIN

Classification

DMT-KLIN Grilles with blades fixed at 45°, hinged removable core without tools, by pressing on the invisible PUSH fasteners. By slightly pressing on the invisible latch, the core opens, remaining hinged on one side. If necessary the core can be easily removed for its maintenance, that conforms with the regulations required for maintenance of HVAC installations.

DMT-KLIN / DMT-KLIN+PFT



L x H	E	F
600 x 300	595 x 295	565 x 265
625 x 313	620 x 308	605 x 278
675 x 338	670 x 330	640 x 300
600 x 600	595 x 595	565 x 565
625 x 625	620 x 620	605 x 605
675 x 675	670 x 670	640 x 640

Material

Grilles constructed from extruded aluminium.

Additional accessories

PFT Filter box made in galvanised steel with mesh and filter included (K/8 class EN 779 G3).

PLK Plenum box fixed to the grille with an upper connection, made in galvanised steel.

...-R Plenum box with a flow damper in the spigot.

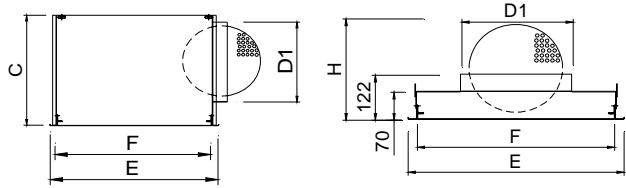
.../L/ Plenum box with a lateral connection.

.../AIS/ Plenum box thermo acoustically insulated by a foam with a coefficient of thermal conductivity of 0,04 w/mk. This foam complies with the fire reaction specifications:

- UNE 23-727 M2
- NFP 92-501 M2
- DIN 4102 M2

PLK/L/...-R

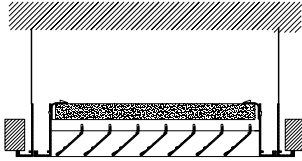
PLK...-R



L x H	E	F	D1	H	C
600 x 300	595 x 295	565 x 265	313	353	435
625 x 313	620 x 308	605 x 278	313	353	435
675 x 338	670 x 330	640 x 300	313	353	435
600 x 600	595 x 595	565 x 565	313	353	435
625 x 625	620 x 620	605 x 605	313	353	435
675 x 675	670 x 670	640 x 640	313	353	435



(1)



Fixing systems

1) Supports to hang the assembly from the ceiling with drops rods.

Finishes

M9016 Painted in white similar to RAL 9016.

R9010 Painted in white RAL 9010.

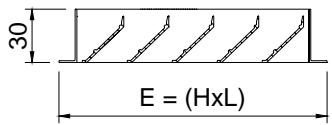
RAL... Painted in other RAL colours.

Specification text

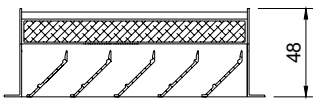
Supply and mounting of air return grille with fixed blades with hinged removable core without tools, by pressing on the invisible PUSH fasteners series **DMT-KLIN+PFT M9016 dim. LxH**, with filter type K/8 efficiency EN 779 G3, constructed from aluminium paint in white **M9016**.
Manufacturer **MADEL**.



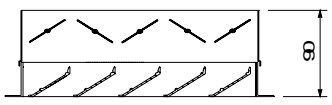
DMT-MOD



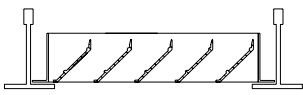
DMT-MOD-PFT



DMT-MOD+SP



(1)



DMT-MOD

Classification

DMT-MOD Grilles with blades fixed at 45°, parallel to the longer side.

DMT-MOD-PFT Grilles with filter type K/8 efficiency EN 779 G3.

DMT-MOD... Grilles with blades fixed at 45°, parallel to the shorter side.

Material

Grilles constructed from extruded aluminium.

Additional accessories

SP Opposed blades damper to regulate the air flow. The damper is operated by an easily accessible key inside the grille. Constructed from electro-zinc steel, painted in black colour. The damper is held in place by "S" springs.

Fixing systems

1) Suspended at the false ceiling. Replace a false ceiling plate.



Finishes

AA Matt silver anodised.

M9016 Painted in white similar to RAL 9016.

R9010 Painted in white RAL 9010.

RAL... Painted in other RAL colours.

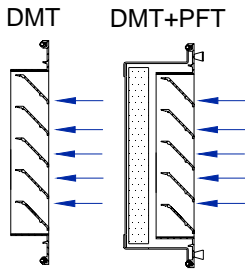
Specification text

Supply and mounting of air return grille with fixed blades at 45° parallels to the largest side series **DMT-MOD+PFT M9016 dim. 595x595**, with filter type K/8 efficiency EN 779 G3, designed to replace false ceiling tile, constructed from aluminium paint in white **M9016**. Manufacturer **MADEL**.

DMT

FREE FACE AREA m2.

H \ L	150	200	250	300	350	400	450	500	600	700	800	900	1000
100	0,007	0,011	0,013	0,016	0,018	0,021	0,024	0,027	0,032	0,037	0,043	0,048	0,054
150	0,012	0,016	0,021	0,025	0,029	0,033	0,038	0,042	0,051	0,059	0,068	0,076	0,085
200	0,016	0,022	0,028	0,034	0,040	0,046	0,052	0,057	0,070	0,081	0,093	0,105	0,117
250	0,020	0,028	0,035	0,043	0,050	0,058	0,065	0,073	0,088	0,103	0,118	0,133	0,148
300	0,025	0,034	0,043	0,052	0,061	0,070	0,079	0,088	0,107	0,125	0,143	0,161	0,180
350	0,029	0,040	0,050	0,061	0,072	0,083	0,093	0,104	0,125	0,147	0,168	0,190	0,211
400	0,033	0,046	0,058	0,070	0,083	0,095	0,107	0,120	0,144	0,169	0,193	0,218	0,243
450	0,038	0,052	0,065	0,079	0,093	0,107	0,121	0,135	0,163	0,191	0,218	0,246	0,274
500	0,042	0,057	0,073	0,089	0,104	0,120	0,135	0,151	0,182	0,213	0,244	0,275	0,306
600	0,051	0,069	0,088	0,107	0,125	0,144	0,163	0,182	0,219	0,257	0,294	0,331	0,369



FREE VELOCITY, PRESSURE LOSS AND SOUND POWER LEVEL.

RECOMMENDED VELOCITY.

Vmin m/s	Vmax m/s
1,5	3

Determination of air flow.
Measuring the Vf in different points
of the grille, we find the Vfmed.

$$Q \text{ (l/s)} = V_{fmed} \text{ (m/s)} \cdot A_{free} \text{ (m}^2\text{)} \cdot 1000$$

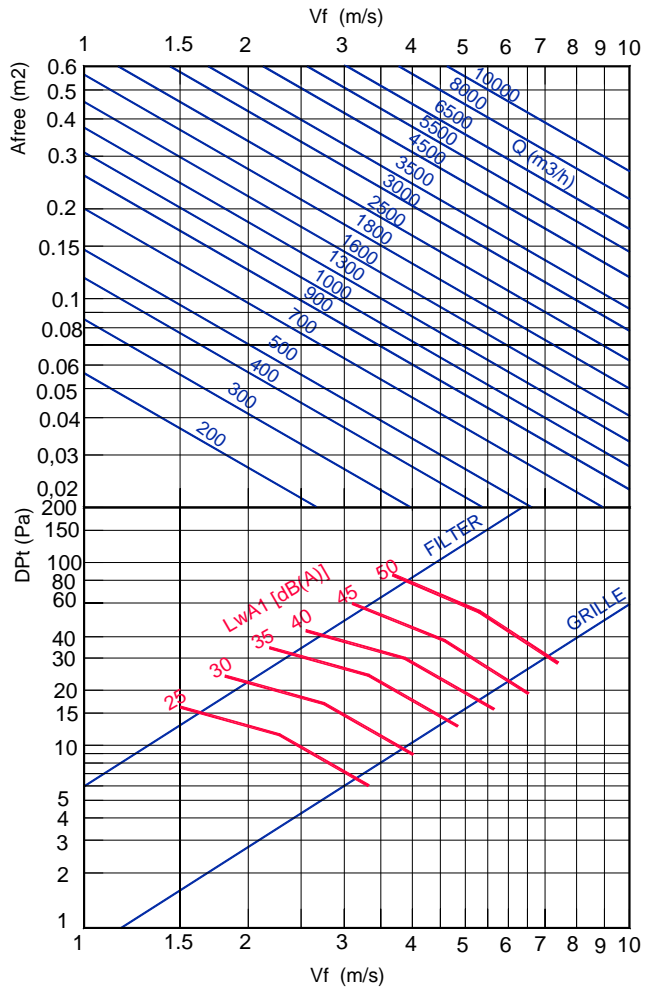
$$Q \text{ (m}^3\text{/h)} = V_{fmed} \text{ (m/s)} \cdot A_{free} \text{ (m}^2\text{)} \cdot 3600$$

CORRECTION FACTOR FOR Lwa1.

Afree m2	0,01	0,02	0,05	0,1	0,2	0,4
Lwa1(kf)	-9	-6	-3	-	+4	+7

Weighted noise level related to
Afree = 0,1m2.

$$Lwa = Lwa1 + Kf$$

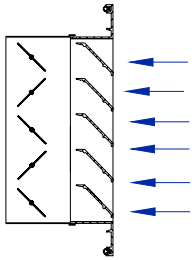


DMT

FREE FACE AREA m2.

H \ L	150	200	250	300	350	400	450	500	600	700	800	900	1000
100	0,007	0,011	0,013	0,016	0,018	0,021	0,024	0,027	0,032	0,037	0,043	0,048	0,054
150	0,012	0,016	0,021	0,025	0,029	0,033	0,038	0,042	0,051	0,059	0,068	0,076	0,085
200	0,016	0,022	0,028	0,034	0,040	0,046	0,052	0,057	0,070	0,081	0,093	0,105	0,117
250	0,020	0,028	0,035	0,043	0,050	0,058	0,065	0,073	0,088	0,103	0,118	0,133	0,148
300	0,025	0,034	0,043	0,052	0,061	0,070	0,079	0,088	0,107	0,125	0,143	0,161	0,180
350	0,029	0,040	0,050	0,061	0,072	0,083	0,093	0,104	0,125	0,147	0,168	0,190	0,211
400	0,033	0,046	0,058	0,070	0,083	0,095	0,107	0,120	0,144	0,169	0,193	0,218	0,243
450	0,038	0,052	0,065	0,079	0,093	0,107	0,121	0,135	0,163	0,191	0,218	0,246	0,274
500	0,042	0,057	0,073	0,089	0,104	0,120	0,135	0,151	0,182	0,213	0,244	0,275	0,306
600	0,051	0,069	0,088	0,107	0,125	0,144	0,163	0,182	0,219	0,257	0,294	0,331	0,369

DMT+SP



RECOMMENDED VELOCITY.

Vmin m/s	Vmax m/s
1,5	3

Determination of air flow.

Measuring the Vf in different points of the grille, we find the Vfmed.

$$Q \text{ (l/s)} = V_{fmed} \text{ (m/s)} * A_{free} \text{ (m}^2) * 1000$$

$$Q \text{ (m}^3\text{/h)} = V_{fmed} \text{ (m/s)} * A_{free} \text{ (m}^2) * 3600$$

CORRECTION FACTOR FOR Lwa1.

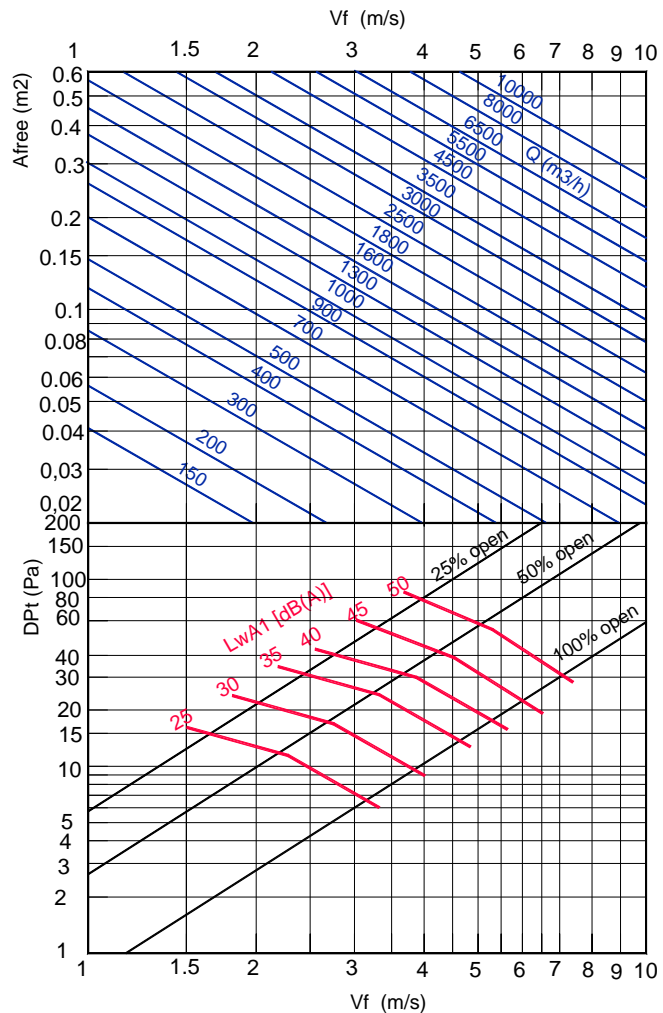
Afree m2	0,01	0,02	0,05	0,1	0,2	0,4
Lwa1(kf)	-9	-6	-3	-	+4	+7

Weighted noise level related to

Afree = 0,1m2.

$$Lwa = Lwa1 + Kf$$

FREE VELOCITY, PRESSURE LOSS AND SOUND POWER LEVEL.



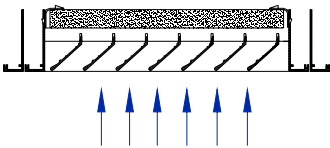


DMT-KLIN

FREE FACE AREA m2.

L x H	
600x600	0,200
625x625	0,208
675x675	0,225
600x300	0,1
625x313	0,108
675x338	0,126

DMT-KLIN + PFT



RECOMMENDED VELOCITY.

Vmin m/s	Vmax m/s
1,5	3

Determination of air flow.
Measuring the Vf in different points of the grille, we find the Vfmed.

$$Q \text{ (l/s)} = V_{fmed} \text{ (m/s)} * A_{free} \text{ (m}^2) * 1000$$

$$Q \text{ (m}^3\text{/h)} = V_{fmed} \text{ (m/s)} * A_{free} \text{ (m}^2) * 3600$$

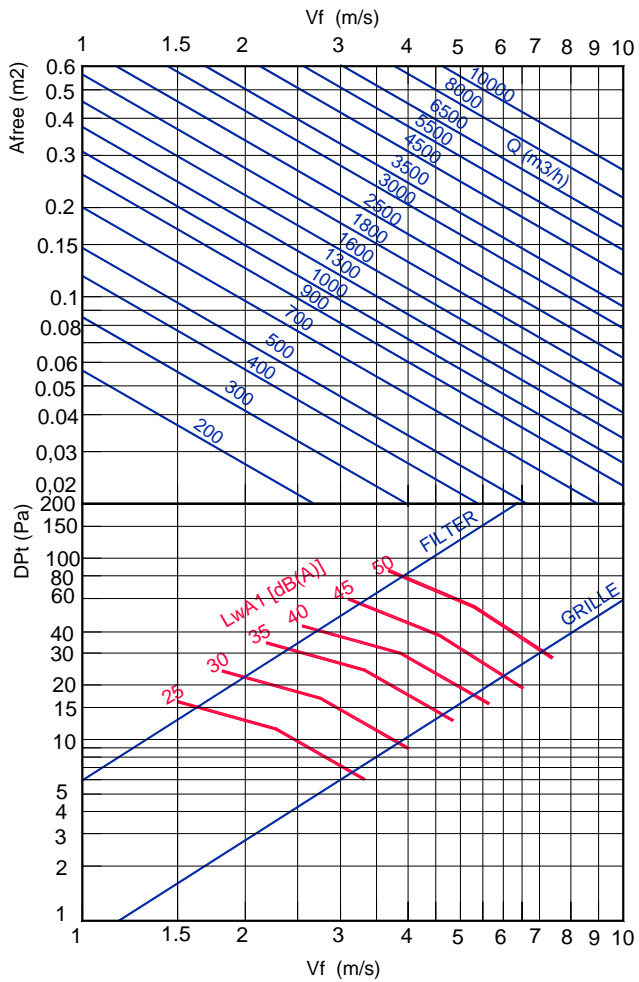
CORRECTION FACTOR FOR Lwa1.

Afree m2	0,01	0,02	0,05	0,1	0,2	0,4
Lwa1(kf)	-9	-6	-3	-	+4	+7

Weighted noise level related to
Afree = 0,1m2.

$$Lwa = Lwa1 + Kf$$

FREE VELOCITY, PRESSURE LOSS AND SOUND POWER LEVEL.

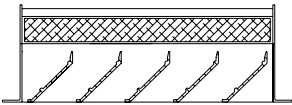


DMT-MOD

FREE FACE AREA m2.

L x H	
595x295	0,107
1195x295	0,215
595x595	0,215
1195x595	0,43
620x620	0,224
670x670	0,242

DMT-MOD + PFT



RECOMMENDED VELOCITY.

Vmin m/s	Vmax m/s
1,5	3

Determination of air flow.
Measuring the Vf in different points of the grille, we find the Vfmed.

$$Q \text{ (l/s)} = V_{fmed} \text{ (m/s)} * A_{free} \text{ (m}^2\text{)} * 1000$$

$$Q \text{ (m}^3\text{/h)} = V_{fmed} \text{ (m/s)} * A_{free} \text{ (m}^2\text{)} * 3600$$

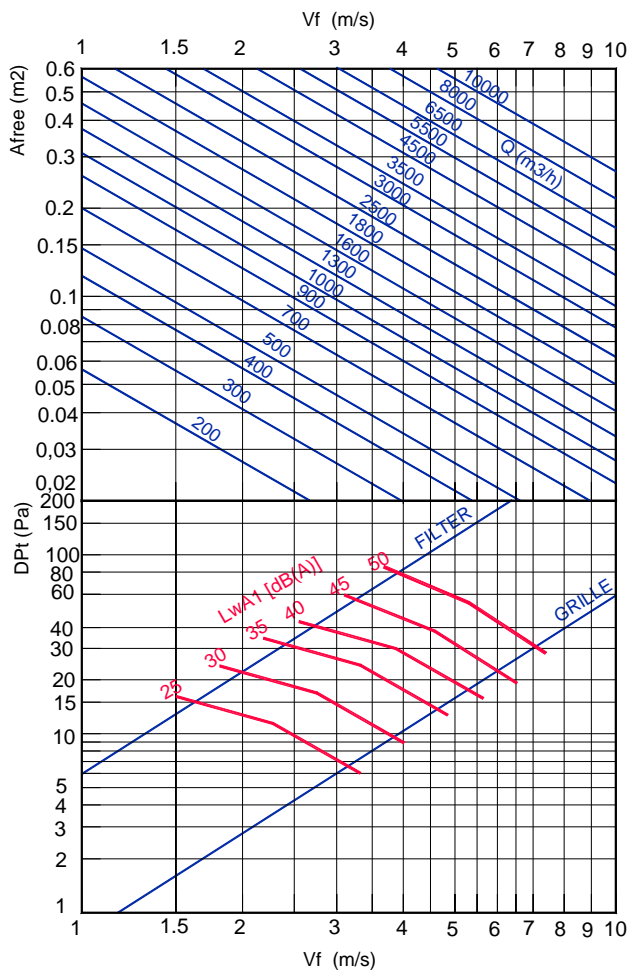
CORRECTION FACTOR FOR Lwa1.

Afree m2	0,01	0,02	0,05	0,1	0,2	0,4
Lwa1(kf)	-9	-6	-3	-	+4	+7

Weighted noise level related to
Afree = 0,1m2.

$$Lwa = Lwa1 + Kf$$

FREE VELOCITY, PRESSURE LOSS AND SOUND POWER LEVEL.

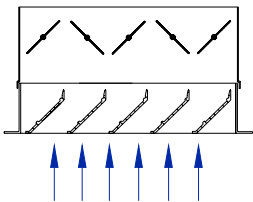


DMT-MOD

FREE FACE AREA m².

L x H	
595x295	0,107
1195x295	0,215
595x595	0,215
1195x595	0,43
620x620	0,224
670x670	0,242

DMT-MOD +SP



RECOMMENDED VELOCITY:

Vmin m/s	Vmax m/s
1,5	3

Determination of air flow.
Measuring the Vf in different points of the grille, we find the Vfmed.

$$Q \text{ (l/s)} = V_{fmed} \text{ (m/s)} * A_{free} \text{ (m}^2\text{)} * 1000$$

$$Q \text{ (m}^3\text{/h)} = V_{fmed} \text{ (m/s)} * A_{free} \text{ (m}^2\text{)} * 3600$$

CORRECTION FACTOR FOR Lwa1.

Afree m ²	0,01	0,02	0,05	0,1	0,2	0,4
Lwa1(kf)	-9	-6	-3	-	+4	+7

Weighted noise level related to
Afree = 0,1m².

$$L_{wa} = L_{wa1} + K_f$$

FREE VELOCITY, PRESSURE LOSS AND SOUND POWER LEVEL.

