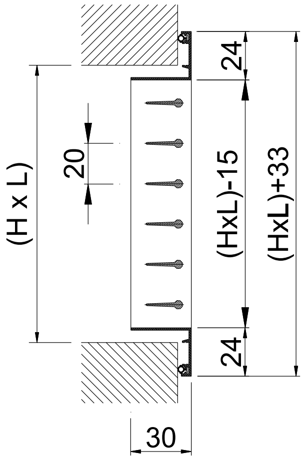
AMT SINGLE DEFLECTION GRILLES

MADEL®

The AMT series grilles are designed to be used in air-conditioning, ventilation and heating.
They are mounted on walls or false ceilings.
The direction of the blades can be altered, making it possible to graduate the extent, the height or the width of the air stream.

AMT
BMT



CLASSIFICATION

AMT Grilles with moveable parallel blades in the larger size.

BMT Grilles with moveable parallel blades in the smaller size.

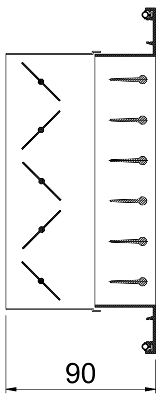
MATERIAL

AMT-AN Extruded aluminium grilles.

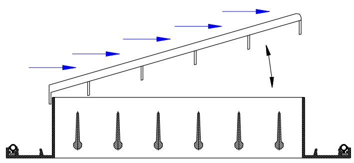
AMT-N Galvanised steel grilles.

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.

AMT+SP



AMT-FD

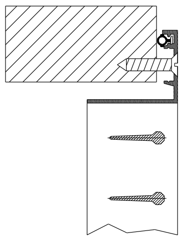


ADDITIONAL ACCESSORIES

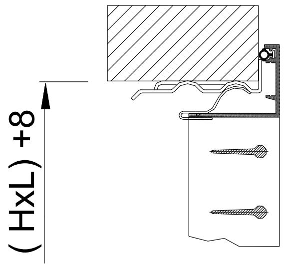
SP Opposed blades damper to regulate the air flow.
The damper is operated by an easily accessible key inside the grille.
Constructed from electro-zinc steel, painted in black colour.
The damper is held in place by “S” springs.

SPM-A Operated by means of an external key.

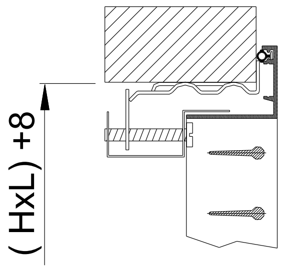
FD Flap damper with inclined moveable control, constructed in galvanised steel with black enamel.



(T)



(S)



(O)

FIXING SYSTEMS

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

(S) The grille is fixed in place with clips (standard supply).
It requires the CM mounting frame.
When assembling with the metallic frame, measures H and L increase 8 mm.

(O) The grille is fixed in place by a hidden screw.
It requires the CM mounting frame.
When assembling with the metallic frame, measures H and L increase 8 mm.

FINISHES

Aluminium Grilles:
AA Anodised in matt silver.

M9016 Lacquer in white colour similar to RAL 9016.

RAL... Lacquer in other colours (RAL specifications).

Steel Grilles:
M9006 Lacquer in metallic grey colour, similar to RAL 9006.

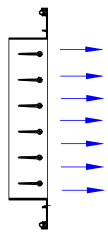
R9010 Lacquer in white colour RAL 9010.

RAL... Lacquer in other colours (RAL specifications).

AMT SERIES

FREE FACE AREA m2.

H \ L	100	150	200	250	300	350	400	450	500	550	600	700	800	900	1000
100	0,006	0,009	0,013	0,017	0,020	0,024	0,027	0,031	0,034	0,038	0,041	0,049	0,056	0,063	0,070
150	0,009	0,015	0,021	0,026	0,032	0,037	0,043	0,049	0,054	0,060	0,066	0,077	0,088	0,099	0,110
200	0,012	0,020	0,027	0,035	0,042	0,050	0,057	0,064	0,072	0,079	0,087	0,102	0,116	0,131	0,146
250	0,016	0,025	0,035	0,044	0,054	0,063	0,073	0,082	0,092	0,101	0,111	0,130	0,149	0,168	0,187
300	0,019	0,030	0,042	0,053	0,064	0,076	0,087	0,098	0,109	0,121	0,132	0,155	0,178	0,200	0,223
350	0,023	0,036	0,049	0,063	0,076	0,089	0,103	0,116	0,129	0,143	0,156	0,183	0,210	0,236	0,263
400	0,026	0,041	0,056	0,071	0,086	0,101	0,117	0,132	0,147	0,162	0,178	0,208	0,238	0,269	0,299
450	0,029	0,046	0,064	0,081	0,098	0,115	0,132	0,150	0,167	0,184	0,202	0,236	0,271	0,305	0,340



RECOMMENDED VELOCITY.

Vmin m/s	Vmax m/s
2	3.5

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

Q (l/s) = Vfmed (m/s) * Afree (m2) * 1000

Q (m3/h) = Vfmed (m/s) * Afree (m2) * 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.

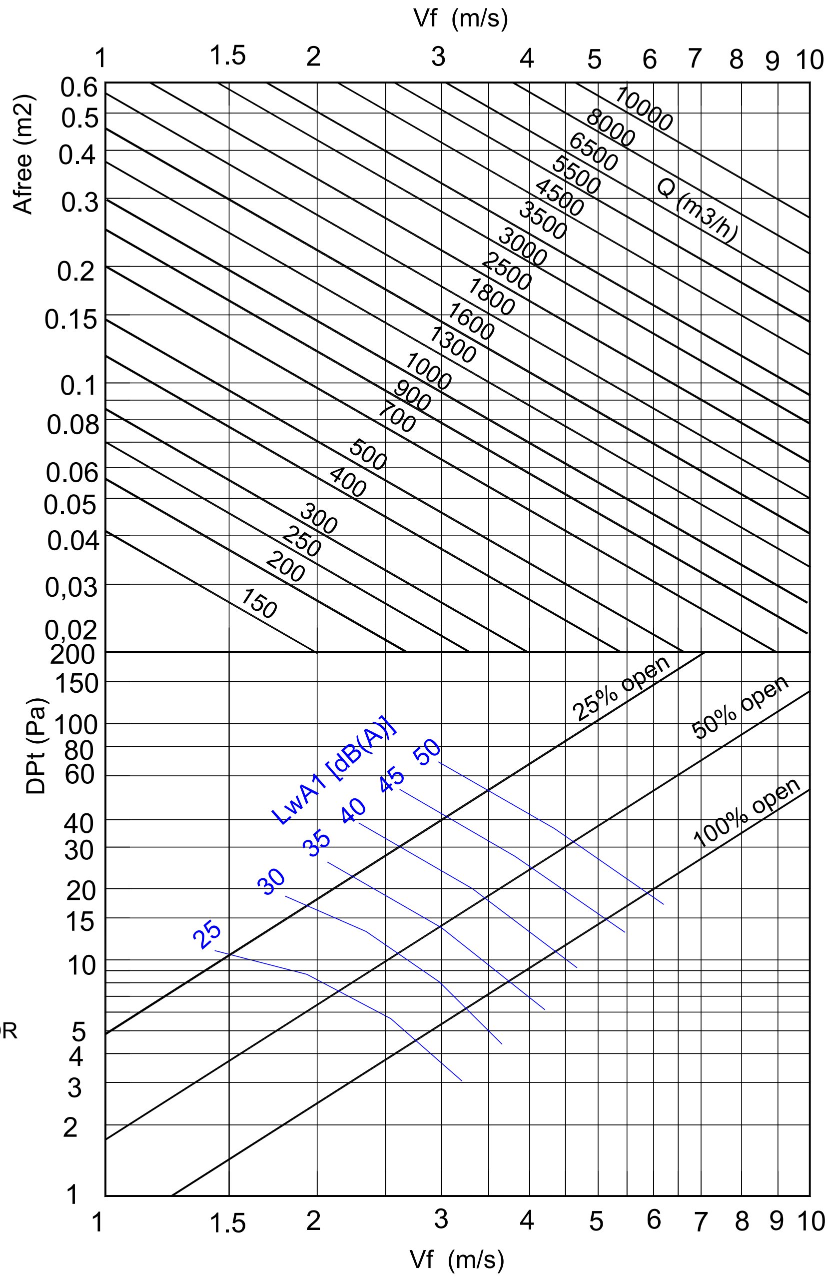
Lwa = Lwa1 + Kf

CORRECTION FACTOR OF PRESSURE LOSS FOR DIFFERENT BLADES POSITIONS.

	0°	22°	45°
Kp	1	1,28	1,5

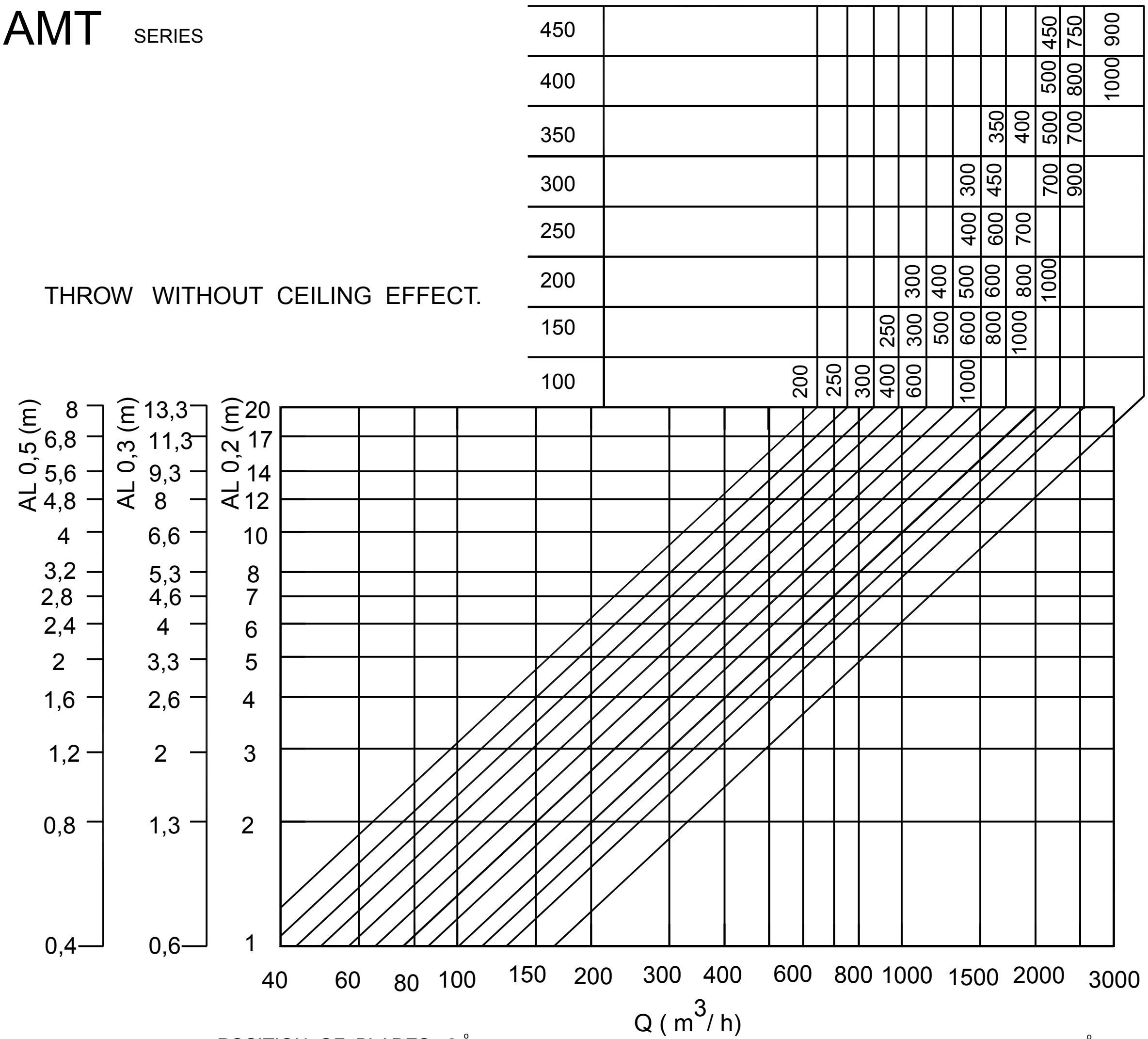
DPt' = Dpt x Kp

FREE VELOCITY, PRESSURE LOSS AND SOUND POWER LEVEL.



AMT SERIES

THROW WITHOUT CEILING EFFECT.



POSITION OF BLADES 0°
WITHOUT CEILING EFFECT.

AL0,2

Lb = AL0,2 x 0,53

bv = AL0,2 x 0,12

bh = AL0,2 x 0,4

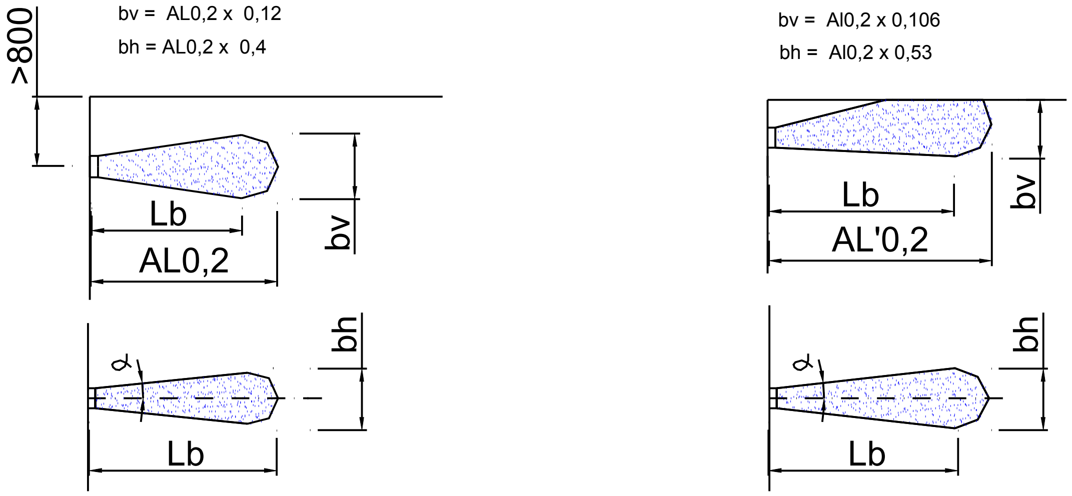
POSITION OF BLADES 0°
WITH CEILING EFFECT.

AL'0,2 = AL0,2 x 1,33

Lb = AL0,2 x 0,7

bv = Al0,2 x 0,106

bh = Al0,2 x 0,53



CORRECTION FACTOR FOR POSITION OF BLADES.

AL0,2(22°) = Al0,2 x 0,8

Lb(22°) = AL0,2 x 0,53

bv(22°) = Al0,2 x 0,096

bh (22°) = Al0,2 x 0,48

AL0,2(45°) = AL0,2 x 0,5

Lb(45°) = AL0,2 x 0,33

bv(45°) = Al0,2 x 0,06

bh(45°) = Al0,2 x 0,6

CORRECTION FACTOR FOR POSITION OF BLADES.

AL0,2(22°) = Al0,2 x 1,064

Lb(22°) = Al0,2 x 0,7

bv(22°) = Al0,2 x 0,08

bh(22°) = Al0,2 x 0,64

Lb(45°)= Al0,2 x 0,66

Lb(45°)= Al0,2 x 0,44

bv(45°) = Al0,2 x 0,054

bh(45°) = Al0,2 x 0,798