

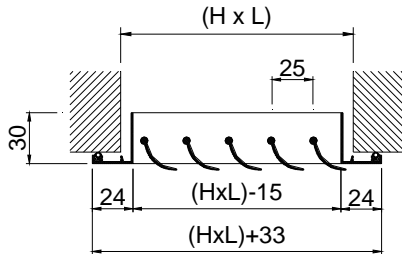
## AMT-AC Curved blades ceiling grilles

### **M A D E L**®

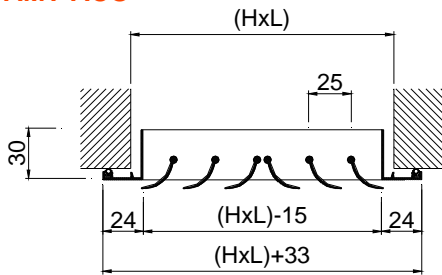
The **AMT-AC** series grilles are designed to be used in air-conditioning, ventilation and heating.

The individually adjustable curved blades are for installation in ceilings, to be used in premises from 2,6 metres high.

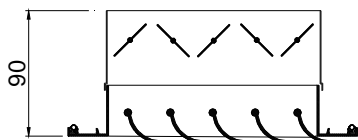
**AMT-AC**



**AMT-ACO**



**AMT-AC + SP**



**CLASSIFICATION**

**AMT-AC** One-Way grille with blades parallels to the largest side (cota L).

**AMT-ACO** Two-Way grille with blades parallels to the largest side (cota L).

**BMT-AC** One-Way grille with blades parallels to the shortest side (cota H).

**BMT-ACO** Two-Way grille with blades parallels to the shortest side (cota H).

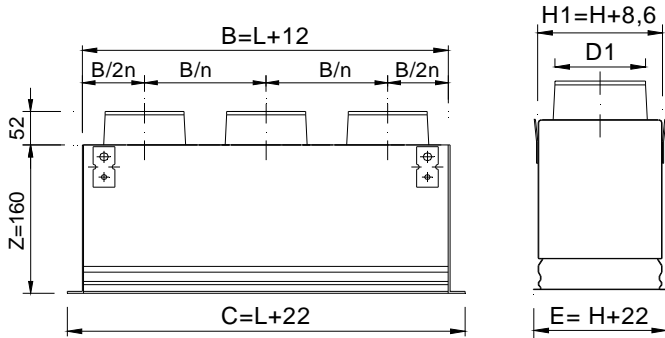
**MATERIAL**

Extruded aluminium grilles. All the grilles are provided with a seal on the back of the frame in order that the perimeter in contact with ceilings is airtight.

**ACCESSORIES**

**SP** Opposed blades volume damper from electro-zinc steel, in black colour. The damper is operated by an easily accessible key inside the grille.

**PLRO**



**ACCESSORIES – PLENUM BOX**

**PLRO** Plenum boxes with upper circular connection, made from galvanized steel. Suitable for both wall and ceiling mounting.

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

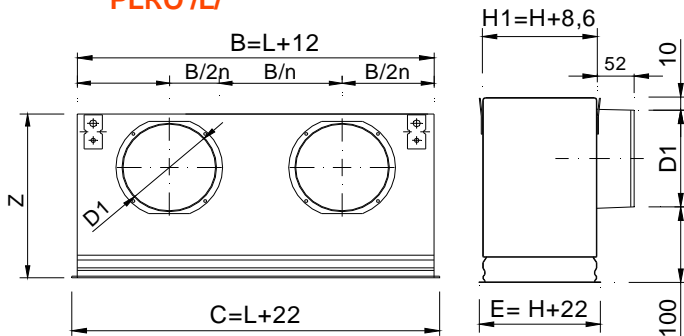
**.../L/** Plenum box with a lateral connection.

**.../AIS/** Thermally insulated plenum box with foam.

Density 30 kg / m<sup>3</sup> ISO 845. Thermal conductivity 20° C\_0,040 W / m°K ISO 3386/1.

Classified reaction to fire B-s2, d0 EN 13501-1.

**PLRO /L/**



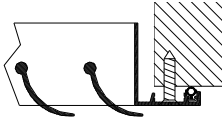
**PLRO (D1)**

LxH	100	150	200	250	300
200	1/98	1/123	1/198		
250	1/98	1/123	1/198	1/198	
300	1/98	1/123	1/198	1/248	1/248
350	1/98	1/123	1/198	1/248	1/248
400	1/98	1/123	1/198	1/248	1/248
450	1/98	1/123	1/198	1/248	1/248
500	1/98	1/123	1/198	1/248	1/248
600	2/98	2/123	1/198	1/248	1/248
700	2/98	2/123	1/198	1/248	1/248
800	2/98	2/123	1/198	1/248	1/248
900	2/98	2/123	2/198	1/248	1/248
1000	2/98	2/123	2/198	1/248	2/248

**PLRO/L/ (D1)**

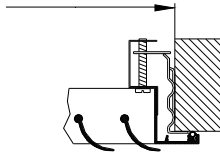
LxH	100	150	200	250	300
200	1/123	1/158	1/198		
250	1/123	1/198	1/198	1/198	
300	1/158	1/198	1/198	1/198	1/248
350	1/158	1/198	1/198	1/248	1/248
400	1/158	1/198	1/248	1/248	1/248
450	1/198	1/198	1/248	1/248	1/313
500	1/198	1/198	1/248	1/248	1/313
600	1/198	2/198	1/248	1/248	1/313
700	2/198	2/198	2/198	2/248	2/248
800	2/198	2/198	2/198	2/248	2/248
900	2/198	2/198	2/248	2/248	2/313
1000	2/198	2/198	2/248	2/248	2/313

(T)



(O)

(H+8) x (L+8)



#### FIXING SYSTEMS

(O) Hidden screw. It requires mounting frame CM.

(T) Visible screws.

#### FINISHES

AA Matt silver anodised.

M9016 Pre-lacquered in white similar to RAL 9016 (85-95% gloss)

#### SPECIFICATION TEXT

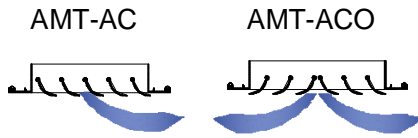
Supply and mounting of grille in One-Way for air supply with individually adjustable curved blades parallels to the largest side serie **AMT-AC+SP+CM** (O) **M9016 dim. LxH**, constructed from aluminium paint in white **M9016** with opposed blades volume damper from electro-zinc steel in black colour **SP**, invisible fixing by hidden screws (O) and mounting frame **CM**. Manufacturer **MADEL**.

## AMT-AC

FREE FACE AREA m<sup>2</sup>.

H \ L	150	200	250	300	350	400	450	500	600	700	800	900	1000
100	0,004	0,006	0,008	0,01	0,012	0,013	0,015	0,017	0,020	0,023	0,027	0,03	0,034
150	0,007	0,01	0,013	0,016	0,019	0,021	0,024	0,027	0,032	0,038	0,043	0,048	0,054
200	0,01	0,014	0,018	0,022	0,025	0,029	0,033	0,037	0,044	0,052	0,059	0,066	0,074
250	0,013	0,018	0,023	0,027	0,032	0,037	0,042	0,047	0,056	0,066	0,075	0,084	0,094
300	0,016	0,021	0,027	0,033	0,039	0,045	0,051	0,059	0,070	0,082	0,094	0,106	0,118
350	0,018	0,025	0,032	0,039	0,046	0,053	0,06	0,067	0,080	0,094	0,107	0,12	0,134
400	0,021	0,029	0,037	0,045	0,053	0,061	0,069	0,077	0,092	0,108	0,123	0,138	0,154
450	0,024	0,033	0,042	0,051	0,06	0,069	0,078	0,087	0,104	0,122	0,139	0,156	0,174

FREE VELOCITY, PRESSURE LOSS AND SOUND POWER LEVEL.



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.

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

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

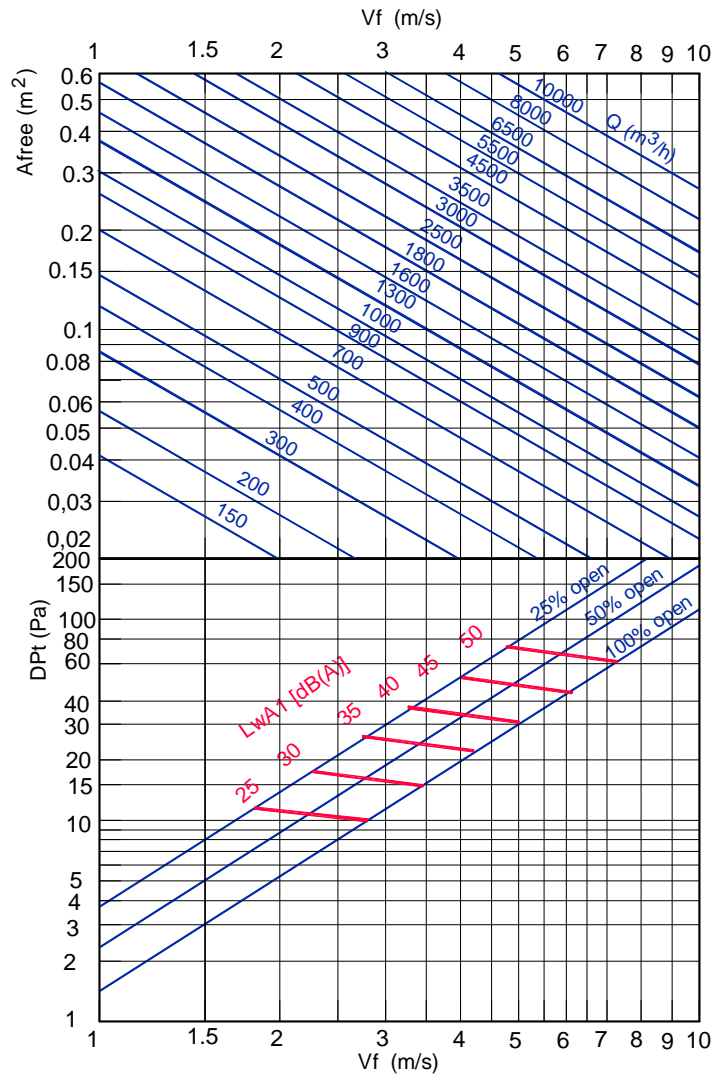
CORRECTION FACTOR FOR Lwa1.

Afree m <sup>2</sup>	0,01	0,02	0,05	0,1	0,2
Lwa1(kf)	-9	-6	-3	-	+4

Weighted noise level related to

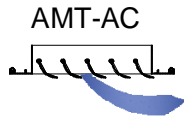
Afree = 0,1m<sup>2</sup>.

$$L_{\text{wa}} = L_{\text{wa1}} + K_{\text{f}}$$



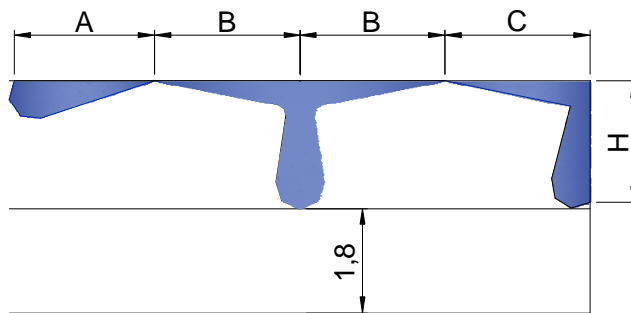
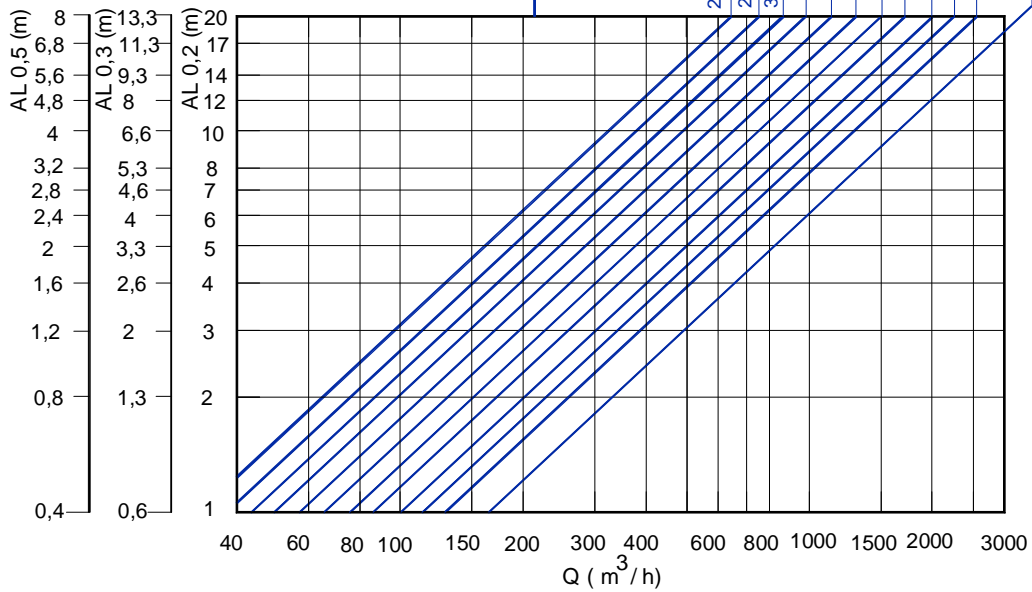
Note: In MadelMedia Octava band centre frequency in Hz.

**AMT-AC**



THROW : ONE WAY

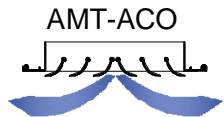
400													400
300												400	600
250							250						
200							300	200			400		
150					150						500	400	
100				100							600	500	



$AL_{0.2} = A$   
 $AL_{0.2} = B + H$   
 $AL_{0.2} = C + H$

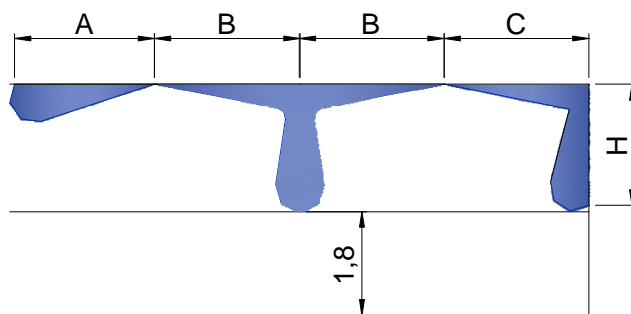
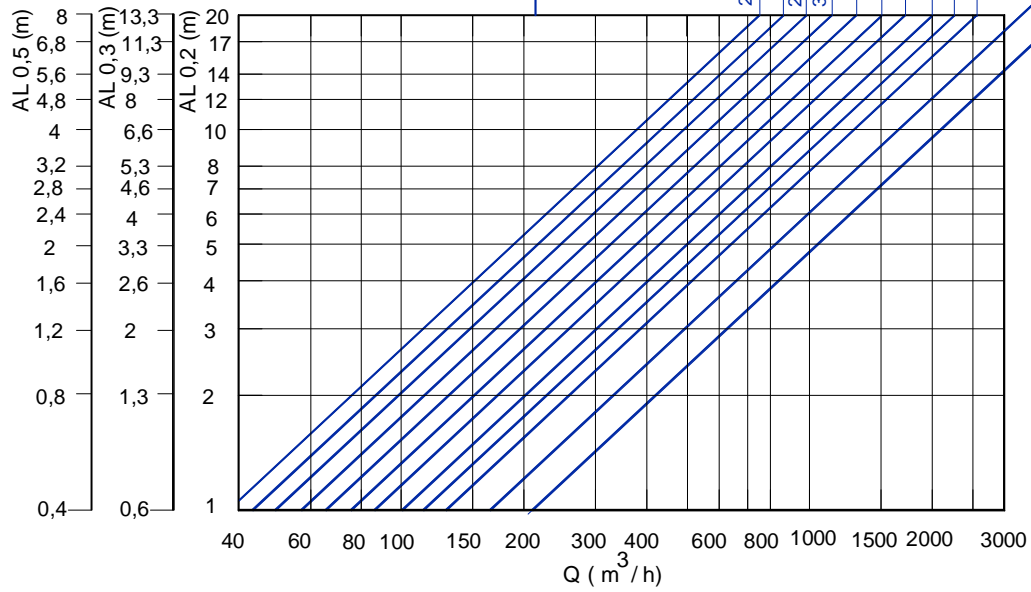


AMT-AC



THROW: TWO WAY

400														400
300														400
250							250							500
200						200		200						500
150									150					500
100										100				500



AL<sub>0.2</sub> = A  
AL<sub>0.2</sub> = B+H  
AL<sub>0.2</sub> = C+H