BMC circular duct grilles

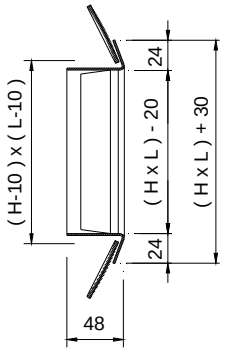
MADEL®

The **BMC** series grilles are designed to be used in HVAC installations.

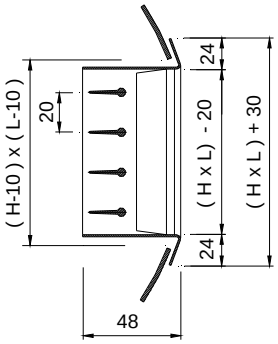
The grilles are placed directly in circular ducts. The direction of the blades can be altered, making it possible to graduate the extent, the height and the width of the air stream.

Grilles constructed in galvanised steel. All the grilles are provided with a seal on the back of the frame in order that the perimeter in contact is airtight.

BMC

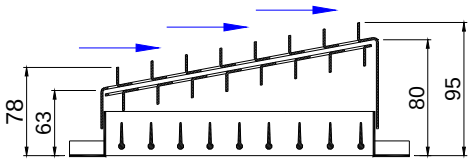


CMC

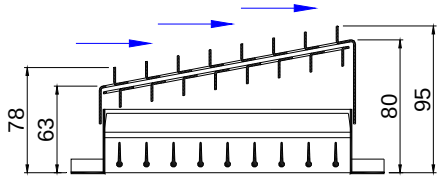


Dia conducto Dia Duct	H
200 - 400	75
300 - 900	125
600 -1600	225

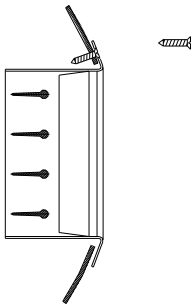
BMC+SD



CMC+SD



(T)



CLASSIFICATION

BMC Single deflection grille.

CMC Double deflection grille.

ACCESSORIES

SD Damper (angled slide cover) for the air flow. Operated by sliding plates with superimposed windows.

FIXING SYSTEMS

(T) Visible screws.

FINISHES

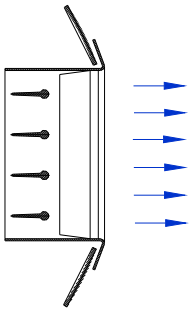
M9016 Painted white similar to RAL 9016 (85-95% gloss)
R9016S Painted white RAL 9016 semi-matt (60-70% gloss)
R9010S Painted white RAL 9010 semi-matt (60-70% gloss)
M9006 Painted grey similar to RAL 9006 (80% gloss)
RAL... Painted in other RAL colours.

SPECIFICATION TEXT

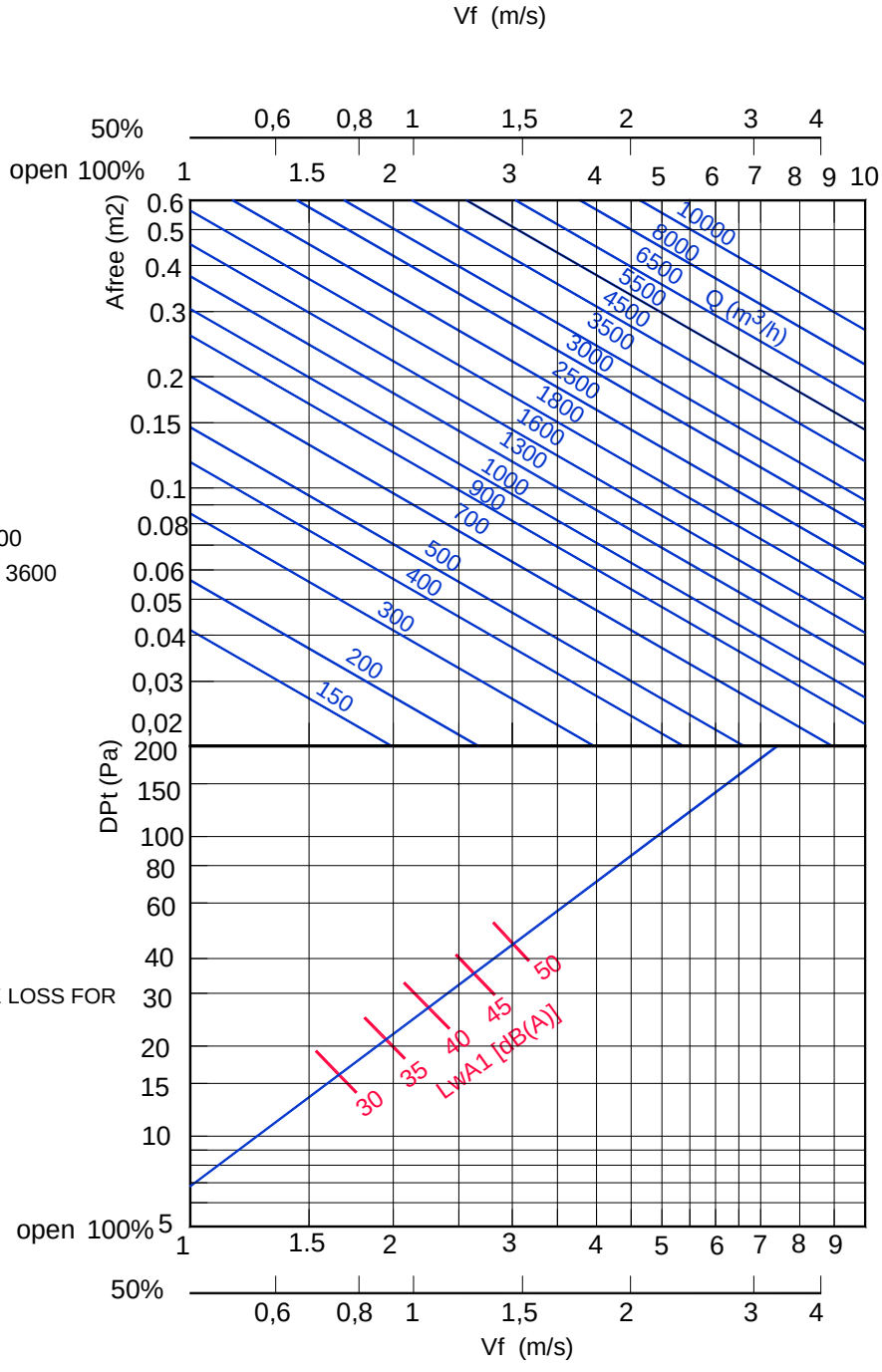
Supply and mounting of double deflection grille for circular ducts with individually adjustable blades and 1st line parallels to the shortest side
series **CMC+SD (T) M9006 dim. LxH**, constructed from galvanised steel paint in grey **M9006** with flap damper from steel **SD**, visible
fixing by screws **(T)**. Manufacturer **MADEL**.

FREE FACE AREA m2.

H \ L	400	500	600
75	0,016	0,020	0,025
125	0,031	0,039	0,047
225	0,060	0,076	0,087



FREE VELOCITY, PRESSURE LOSS AND SOUND POWER LEVEL.



RECOMMENDED VELOCITY.

Vmin m/s	Vmax m/s
2	4

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
Lwa1(kf)	-9	-6	-3

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

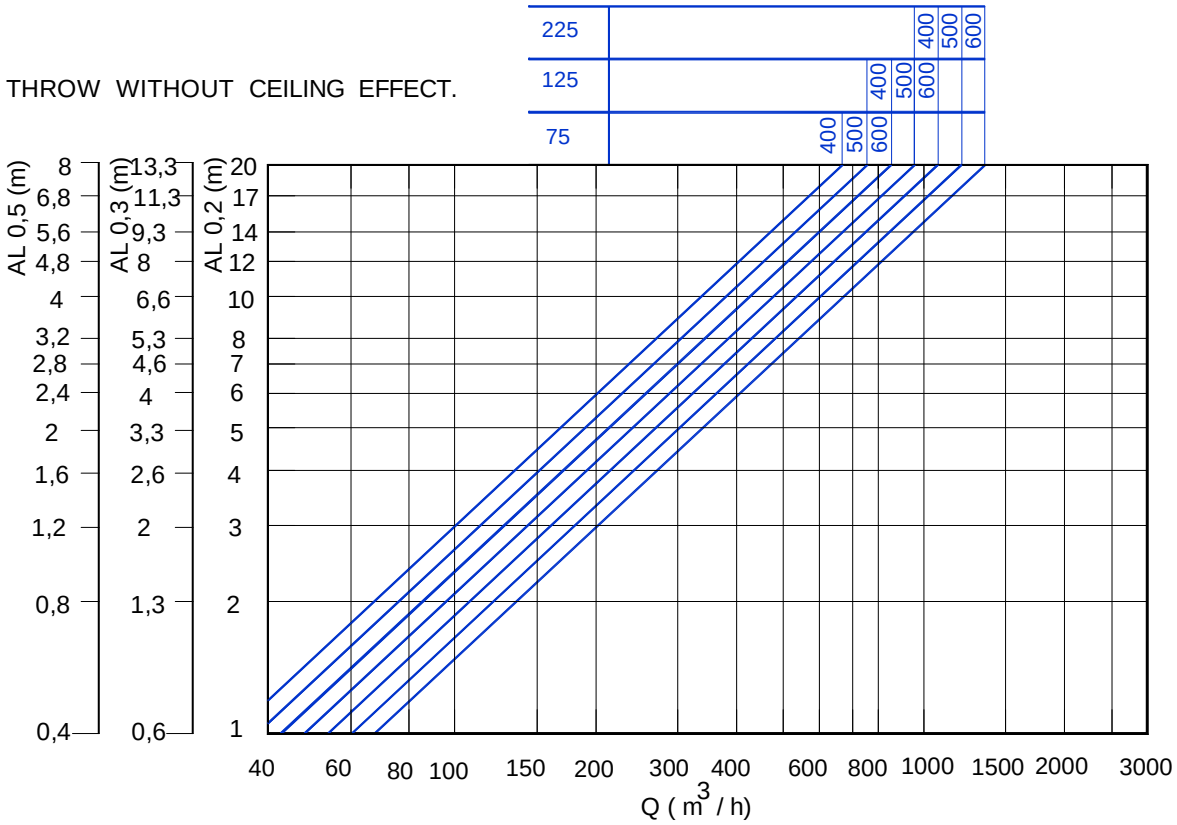
Lwa = Lwa1 + Kf

CORRECTION FACTOR OF PRESSURE LOSS FOR DIFFERENT BLADES POSITIONS.

	0°	22°	45°
Kp	1	1,28	1,4

DPt' = Dpt x Kp

THROW WITHOUT CEILING EFFECT.



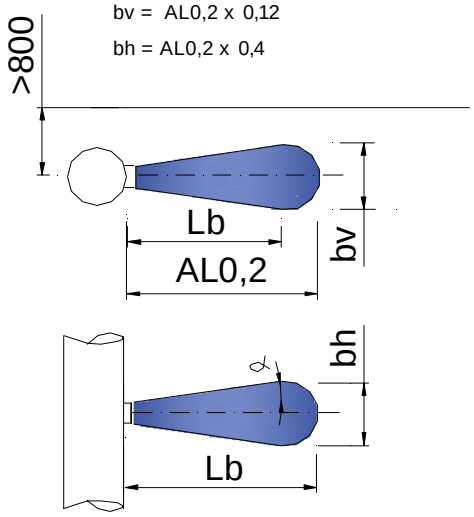
POSITION OF BLADES 0°
WITHOUT CEILING EFFECT.

AL0,2

Lb = AL0,2 x 0,53

bv = AL0,2 x 0,12

bh = AL0,2 x 0,4



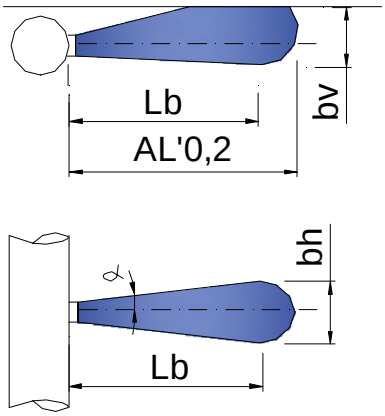
POSITION OF BLADES 0°
WITH CEILING EFFECT.

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