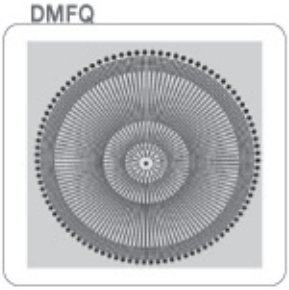
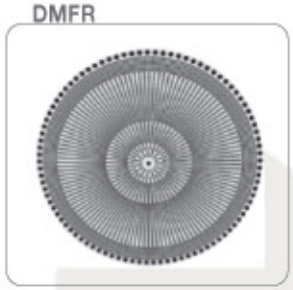
High induction diffusers

DMFQ



DMFR



Description

DMFQ: high induction diffusers, via combination of differentiated section perforations and internal deflectors; with 596 x 596 panels

- installation height between 2.7– 4 m
- made of aluminium with RAL 9010 finish
- Plenum application
- fastening with central screw + cover

Accessories

PPLIS: pyramid plenum with side entry + damper, including external insulation reaction to fire class B-s2-dO (DN oval inlets 150/160-200-250)
PT: upper entry plenum
I: external anti-condensate insulation fire-resistance class B-s2-dO
R: equaliser
S: damper entry

Special versions

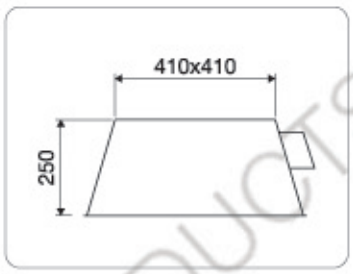
DMFR: like DMFQ but in circular version + 30%
VR: coating according to RAL 9005 / 9006 table
fixed surcharge €30 + 20% per piece

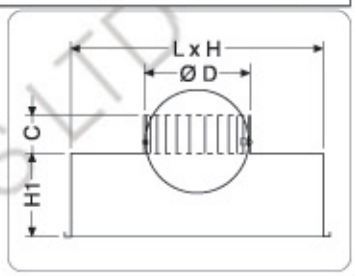
Other RAL colours on request

Dimensions

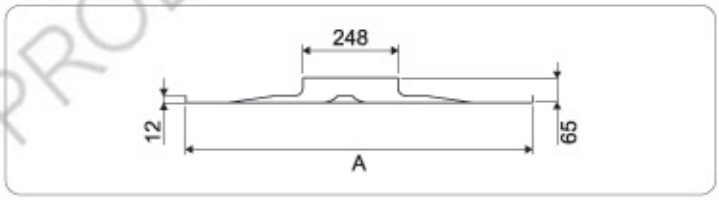
DN	A	L x H	H1	H2	ØD	C
600	596	560x560	200	350	248	50

PPLIS

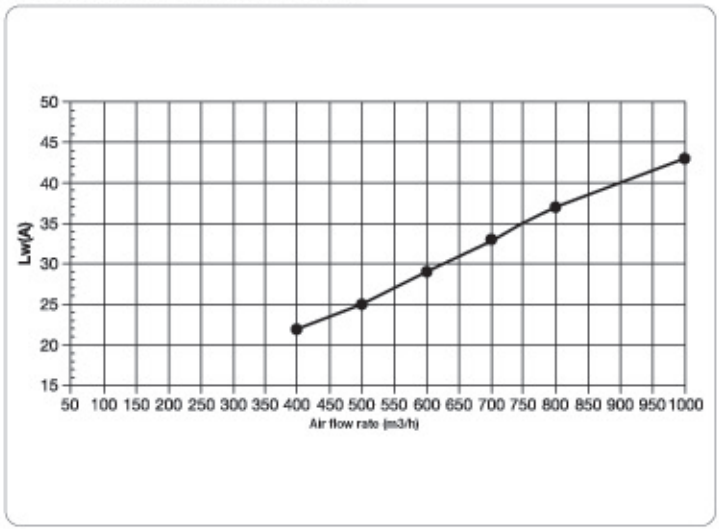




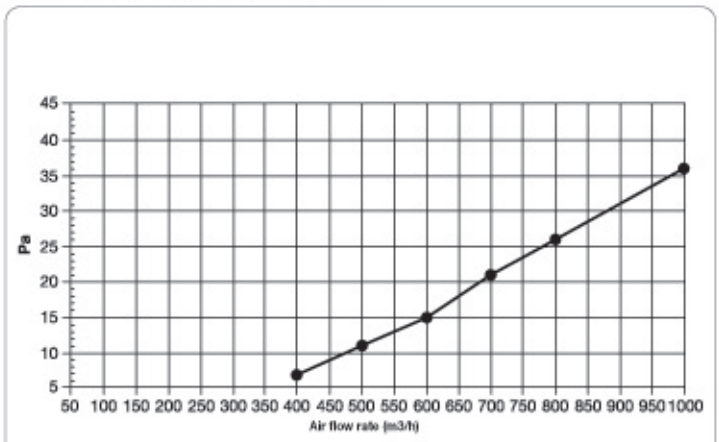
DMFQ 600



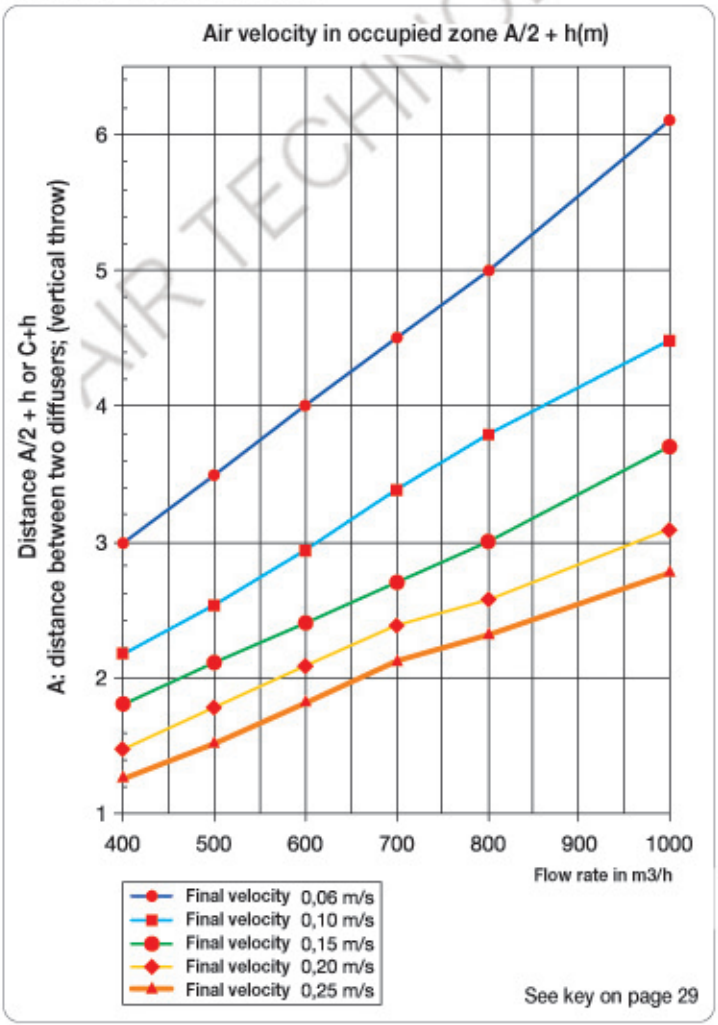
DMFQ / DMFR - Sound power level



DMFQ / DMFR - Pressure drop in Pa



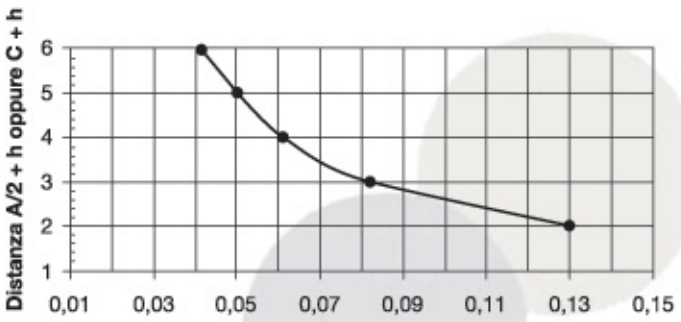
DMFQ 600 - Selection diagram



See key on page 29

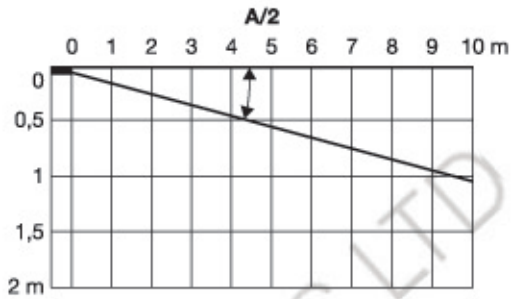
DMFQ / DMFR - Temperature ratio (Rt)

Rt coefficient

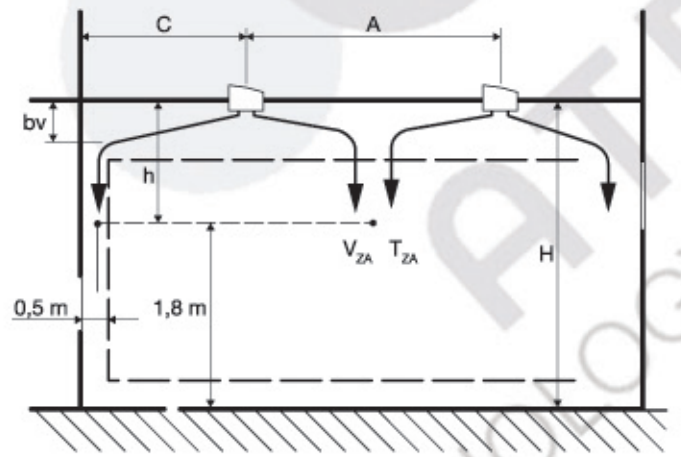


Throw fall (m)

bv



Value for throw fall, at a specific distance.



Key

- **Δpt:** total pressure drop (Pa)
- **L_{WA}:** sound pressure level [dB(A)]
- **R_t:** ratio between the ΔtL [temperature difference between the room (project temperature) and the throw temperature at a distance A/2+h] and Δtm (temperature difference between the supply air and room)
- **V_{ZA}:** velocity in occupied zone (m/s)
- **T_{ZA}:** temperature in the occupied zone (°C)
- **bv:** throw fall (m)
- **H:** room height (m)
- **h:** vertical throw (m)
- **A:** distance between diffusers
- **C:** distance between diffuser and wall

Example

- Room dim. 8x8xH 3 m (volume 192 m^3)
- Air flow: 2400 m^3/h (exchanges 12.5)
- Occupied zone: 1.8 m
- Room temperature: 25°C (project)
- Supply air temperature: 15°C

- Assuming the installation of 4 diffusers
  Flow 2400 m^3/h: 4 diffusers = 600 m^3/h
  Distance between diffusers: A = 4 m
  h = H 3 m - 1.8 occupied zone = 1.2 m
  A/2 + h = 4/2 + 1.2 = 3.2 m

- From **Diagram 1 (Selection)**
  Q = 600 m^3/h - with A/2 + h = 3.2 m = 0.10 m/s velocity in the occupied zone
- From **Diagram 2 (Noise level)**
  with Q = 600 m^3/h - L_{WA} 28 dB(A)
- From **Diagram 3 (Pressure drop)**
  with Q = 600 m^3/h - Pa 15

Temperature ratio (Diagram 4)

- We can obtain the air temperature at the end of the throw
  T_{ZA}: 25°C (room temperature)
  T: 15°C (supply air temperature)
  A: 4 m
  h: 1.8 m
  with A/2 + h = 3.2 a temperature ratio of 0.077 is obtained
  with Δt -10°C (25 - 15)
  the temperature ratio is then multiplied by Δt (0.077 x -10°C) = 0.77
  to obtain the temperature at the end of the throw which will be:
  Room temperature = 25°C - 0.77 = 24.23°C

Throw fall (Diagram 5)

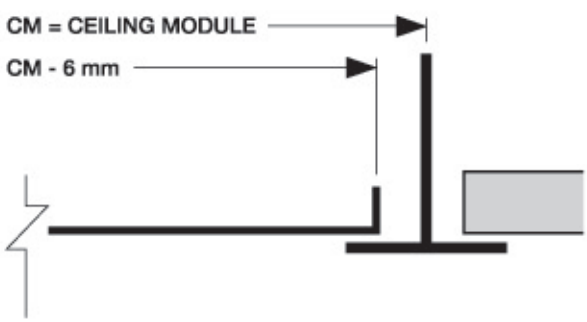
- With A/2: 4/2 = 2 m
  you obtain a fall of 0.3 m

Profiles for false ceilings

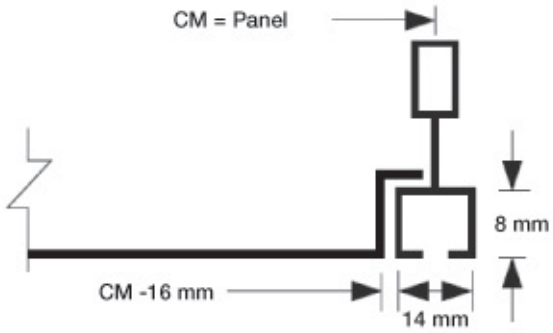
IT IS possible to produce some of our products with panel edges suitable for various types of false ceilings:

- DCRQ
- DEQ
- DQER/Q
- DMFQ
- DMUQ
- DQB4
- RSKP
- RSKO

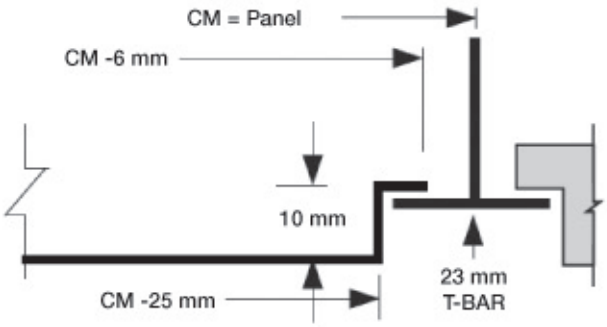
L: Installation recommended for inspection panel



F: Fineline



TL: tile (LAY-IN)



M (SNAP-IN)