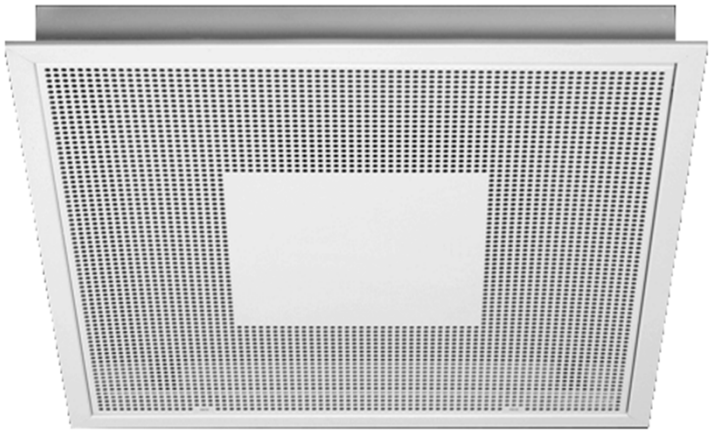

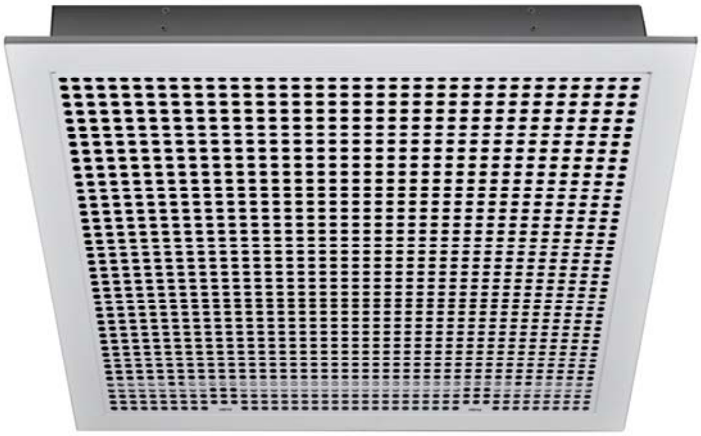

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SYSTEM

DFZ Perforated face diffusers

MADEL®

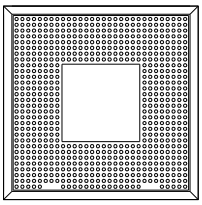
The **DFZ** series perforated diffusers are designed to be applied in HVAC Systems to be mounted in false ceilings.

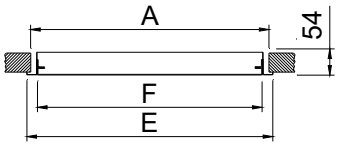
The face design of **DFZ-S4** diffuser cause a 4- way horizontal air supply with an accentuate coanda effect. Their multiple small openings provides a high level of induction rate, emitting a uniform air flow all over the passage section.

The **DFZ** series diffuser are designed for both CAV and VAV installations. These diffusers can be used from 2.6 up to 4 meters high and at a temperature differential up to 12 ºC.

Its sober and discreet design gives to **DFZ** series an excellent capacity of integration with modern ceiling constructions.

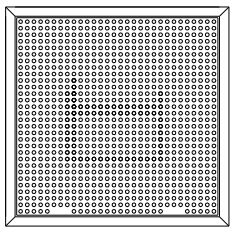
DFZ-S4

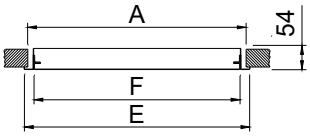




	E	A	F
300	295	269	265
400	395	369	365
500	495	469	465
600	595	569	565
625	620	594	590
675	670	644	640

DFZ-R

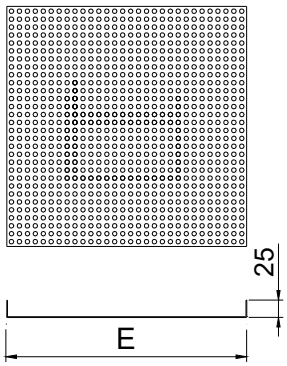




	E	A	F
300	295	269	265
400	395	369	365
500	495	469	465
600	595	569	565
625	620	594	590
675	670	644	640

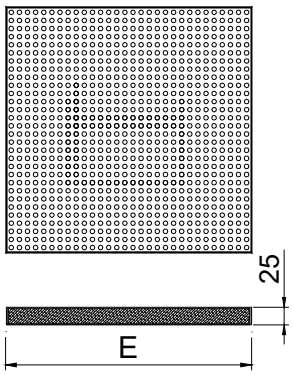
L x H	E	F
600 x 300	595 x 295	565x 265
675 x 338	670 x 333	640 x 303
1200 x 300	1195 x 295	1165 x 265
1200 x 600	1195 x 595	1165 x 565
1350 x 338	1345 x 333	1315 x 303
1350 x 675	1345 x 670	1315 x 640

DFR



	E
300	295
400	395
500	495
600	595
625	620
675	670

DFR+PFT



L x H	E
600 x 300	595 x 295
675 x 338	670 x 333
1200 x 300	1195 x 295
1200 x 600	1195 x 595
1350 x 338	1345 x 333
1350 x 675	1345 x 670

CLASSIFICATION

DFZ-S4 Four-Way square perforated face diffuser with hinged removable core for the easy access to the installations above the ceiling with no need of tools, by means of 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 maintenance of HVAC installations.

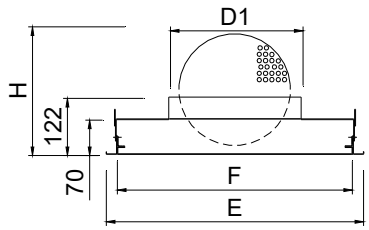
DFZ-R Air return square perforated face diffuser with hinged removable core for the easy access to the installations above the ceiling with no need of tools, by means of PUSH fasteners.
By slightly pressing on the invisible latch, the core opens, remaining hinged on one side. If necessary the core can be easily removed for maintenance of HVAC installations.

DFR Square diffuser for extract without plenum box, to replace a false ceiling tile.

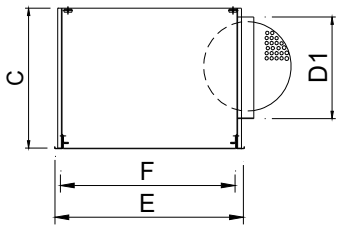
MATERIAL

Diffuser constructed from galvanised steel.

PLK…-R

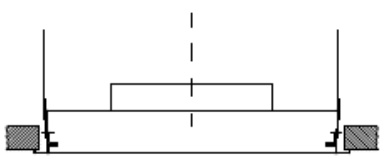


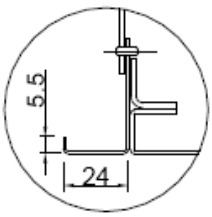
PLK /L…-R



H ò L (nominal)	E	F	D1	H	C
300 X 300	295 x 295	265 x 265	123	353	280
400 X 400	395 x 395	365 x 365	198	353	320
500 X 500	495 x 495	465 x 465	248	353	370
600 X 600	595 x 595	565 x 565	313	353	435
625 X 625	620 x 620	590 x 590	313	353	435
675 X 675	670 x 670	640 x 640	313	353	435
600 x 300	595 x 295	565 x 265	198	353	320
675 X 338	670 x 333	640 x 303	198	353	320
1200 X 300	1195 x 295	1165 x 265	2/198	353	320
1200 X 600	1195 x 595	1165 x 565	2/313	353	435
1350 x 338	1345 x 333	1315 x 303	2/198	353	320
1350 X 675	1345 x 670	1315 x 640	2/313	353	435

1)





ACCESSORIES

PLK Plenum box fixed to the diffuser, 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/ Thermally insulated plenum box with foam. Density 30 kg / m3 ISO 845.
Thermal conductivity 20º C_0,040 W / mºK ISO 3386/1
Classified reaction to fire B-s2, d0 EN 13501-1

PFT K/8 class EN 779 G3 filter incorporated to the diffuser.

FIXING SYSTEMS

1) Support brackets to hang from the ceiling with drop rods.

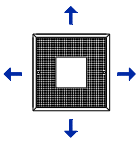
FINISHES

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)
RAL... Painted in other RAL colours

SPECIFICATION TEXT

Supply and mounting of four-way square perforated face diffuser with hinged removable core without tools by pressing on the invisible PUSH fasteners, series **DFZ-S4+PLK-R/L/ M9016** dim. 300 constructed from galvanised steel paint in white **M9016.** With lateral circular connection plenum box and air flow damper in the spigot **PLK-R/L/**. Manufacturer **MADEL**.

DFZ-S4



RECOMMENDED VELOCITY.

DFZ-S4	Vmin m/s	Vmax m/s
300	2.5	5,4
400	2.5	4,5
500	2	3,7
600	2.5	3,1
625	2.5	3,1

FREE FACE AREA (m2).

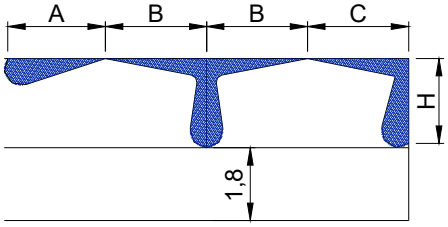
DFZ-S4	Afree m2	Qmin. m3/h	Qmax. m3/h
300	.0149	135	290
400	.0309	280	500
500	.0522	375	700
600	.0798	600	900
625	.0798	600	900

CORRECTION FACTOR FOR DPt AND Lwa1.

PLFZ-R		100% Open	50% Open	10% Open
300	Dpt (Kp)	1	1,25	2,1
	Lwa1 (Kf)	+0,7	+4,1	+8
400	Dpt (Kp)	1	1,7	3,4
	Lwa1 (Kf)	+0,8	+3,2	+7,1
500	Dpt (Kp)	1	1,5	2
	Lwa1 (Kf)	+0,9	+2,6	+6
600	Dpt (Kp)	1	1,7	4,3
	Lwa1 (Kf)	+0,9	+4,3	+8,6
625	Dpt (Kp)	1	1,7	4,3
	Lwa1 (Kf)	+0,9	+4,3	+8,6

DPt1 = Kp x DPt

Lwa = Lwa1 + Kf



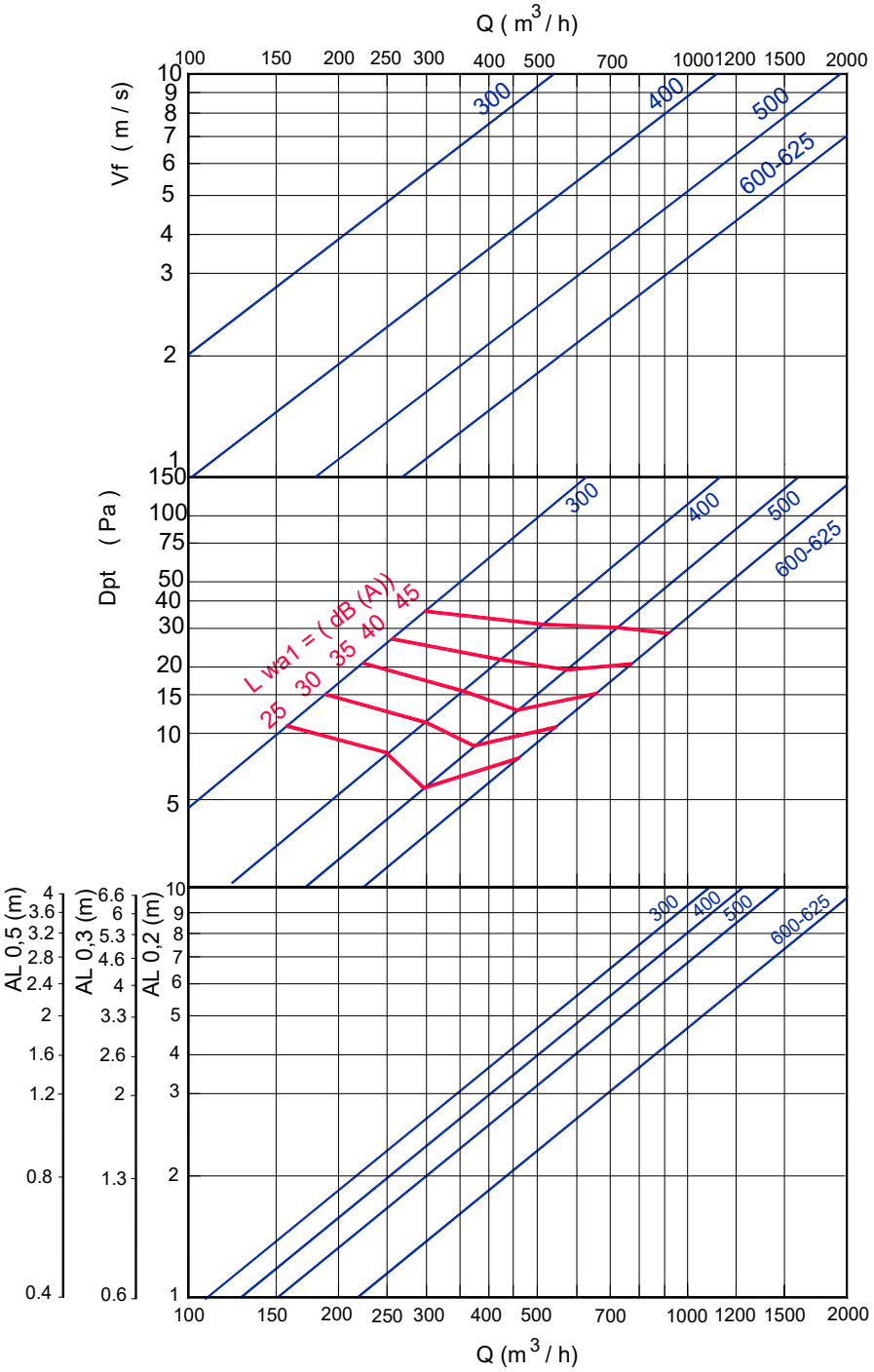
$AL_{0.2}$ = A

$AL_{0.2}$ = B+H

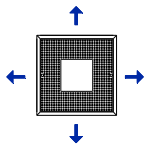
$AL_{0.2}$ = C+H

FREE VELOCITY, PRESSURE LOSS AND SOUND POWER LEVEL, THROW WITH CEILING EFFECT.

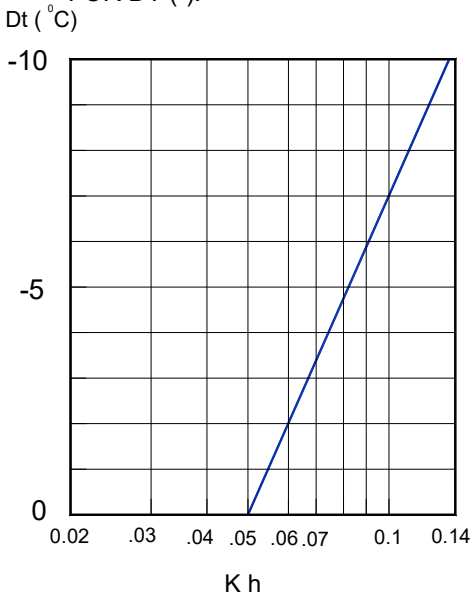
DFZ-S4 + PLFZ



Note: In MadelMedia Octava band centre frequency in Hz.

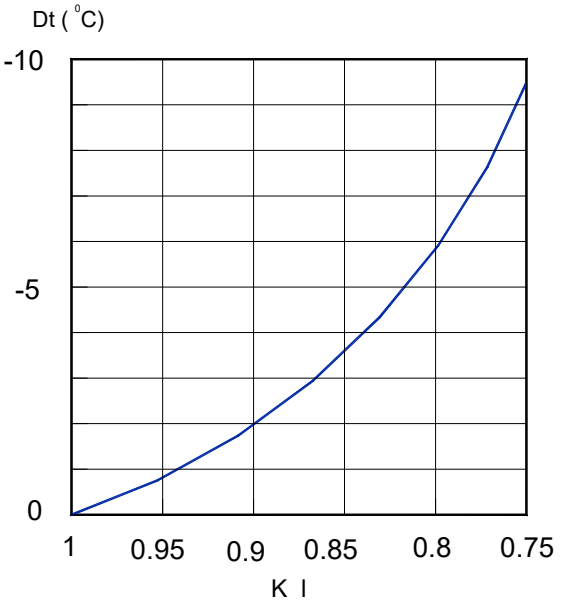


CORRECTION FACTOR FOR VERTICAL DIFFUSION (bV) FOR DT (-).

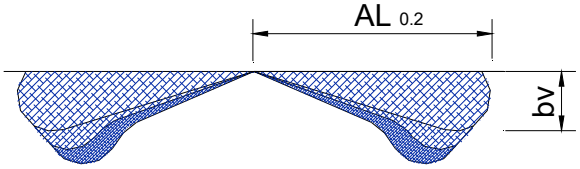


Kh = Correction factor for the vertical diffusion.

CORRECTON FACTOR FOR THROW (L0.2) DT (-).



Kl = Correction factor for the throw.



$$bv = Kh \times Al_{0.2}$$

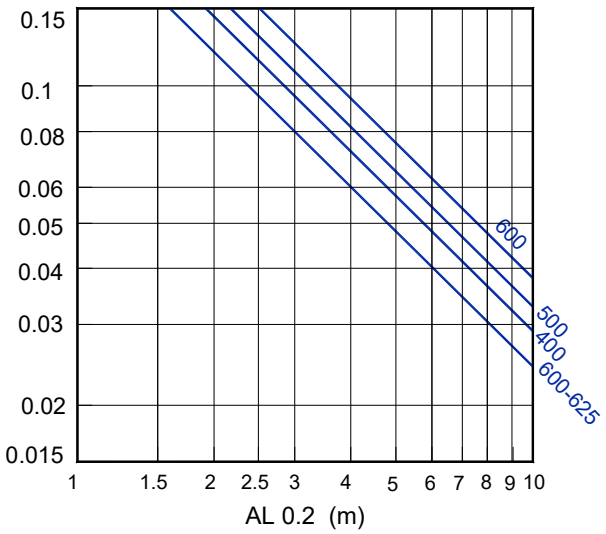
$$AL'_{0.2} \ (Dt < 0) = Kl \times AL_{0.2}$$

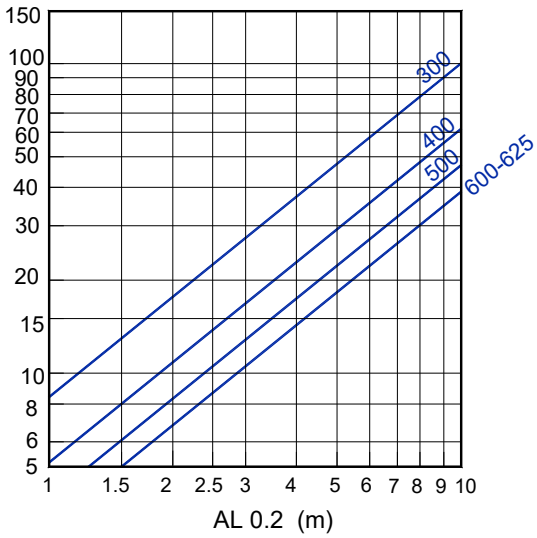
TEMPERATURE RATIO.

$$\frac{Dtl}{Dtz} = \frac{t\ room - t\ x}{t\ room - t\ supply}$$

INDUCTION RATIO.

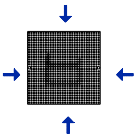
$$i = \frac{Qr}{Q_0} = \frac{Q\ total\ at\ x}{Q\ of\ supply.}$$





DFR

DFR



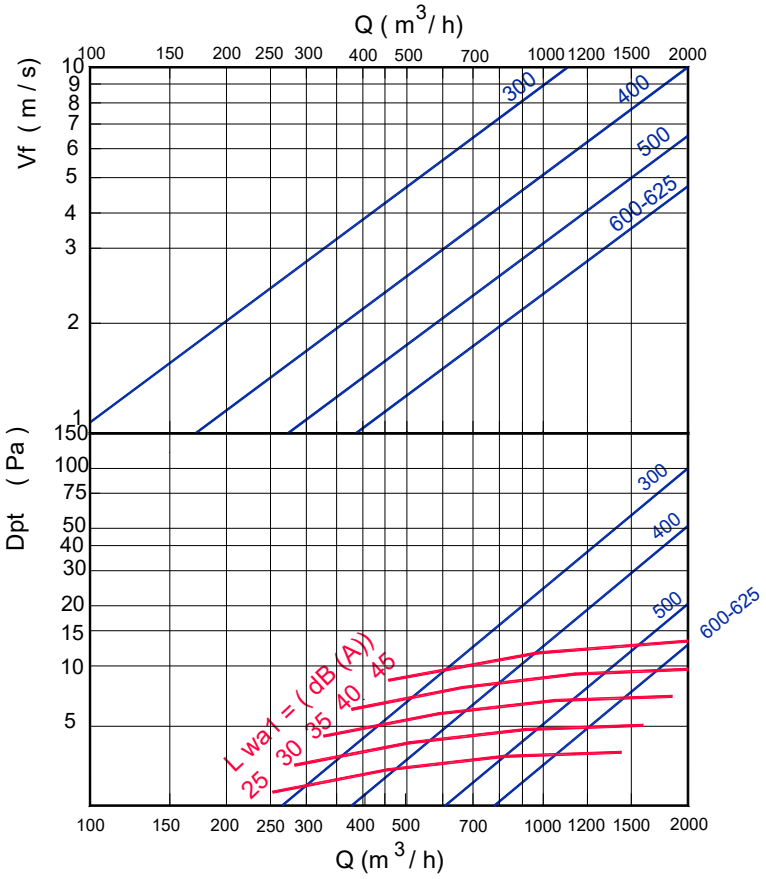
RECOMMENDED VELOCITY.

DFR	Vmin m/s	Vmax m/s
300	2	3,5
400	2	3,5
500	2	3
600	2	3
625	2	3

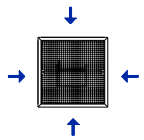
FREE FACE AREA (m2).

DFR	Afree m2	Qmin. m3/h	Qmax. m3/h
300	.028	201	353
400	.05	360	630
500	.08	576	1008
600	0.117	842	1263
625	0.117	842	1263

FREE VELOCITY, PRESSURE LOSS AND SOUND POWER LEVEL, FOR EXTRACT.



DFZ-R



RECOMMENDED VELOCITY.

DFZ-R	Vmin m/s	Vmax m/s
300	2	3,5
400	2	3,5
500	2	3
600	2	3
625	2	3

FREE FACE AREA (m2).

DFZ-R	Afree m2	Qmin. m3/h	Qmax. m3/h
300	.02	144	252
400	.043	309	464
500	.067	482	723
600	0.1	720	1080
625	0.1	720	1080