

20/21  
PRODUCTS

Product Catalogue

# Perforated Ceiling Diffuser

Type ( PCD )



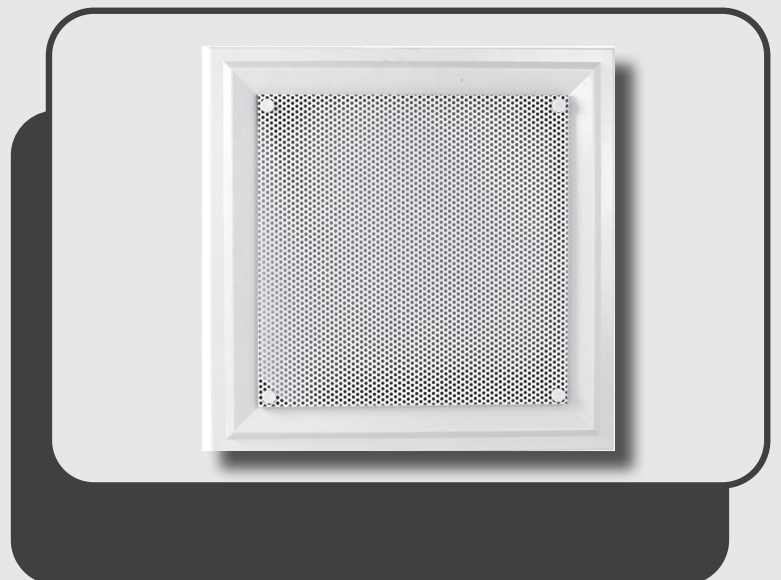
**Khedr Trust**  
ALL AIR PRODUCTS

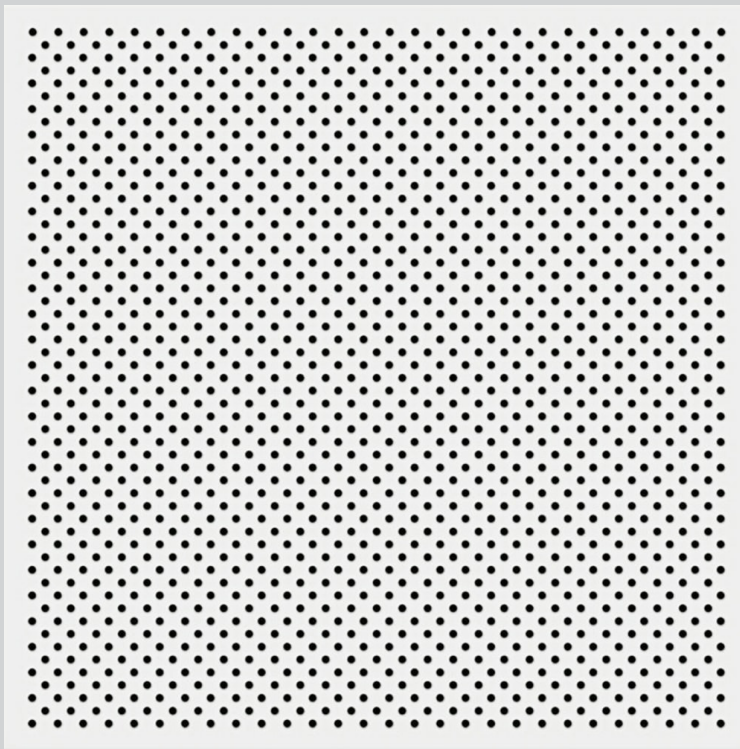
Perforated Ceiling Diffuser products are  
manufactured by



“Your comfort is  
our priority”

[www.khedr-eg.com](http://www.khedr-eg.com)





### Models

- **St. Steel Models**  
PCD-F / Flushed Face  
PCD-D / Drop Face
- **Aluminum Models**  
PCD-F / Flushed Face  
PCD-D / Drop Face



### Finish

- Standard Finish - White



### Features

- Perforated face has 6mm diameter holes on 6mm staggered center.
- Round / Rectangular inlet collar (Neck).



## Perforated Ceiling Diffuser

### Model Use

Khedr Model PCD Diffusers is suitable to use with all clean room applications.

### Unit Design

A tight, uniform blanket of air protect the ceiling against smudging.

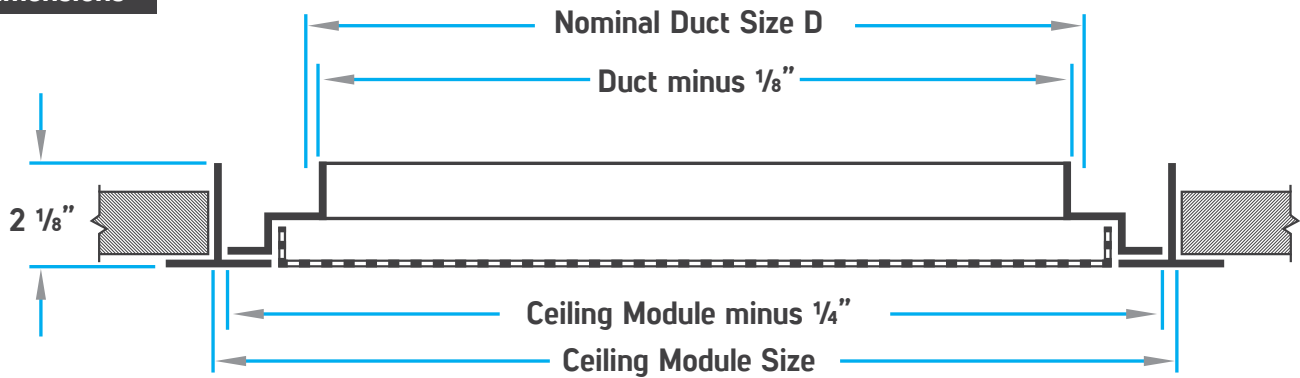
### Appearance

Uniform face appearance with different neck sizes.

### Perforated Face

Dropping the perforated face also gives access to the optional damper.

**- Dimensions**



**- Performance data**

Neck Size "Inch" /Outlet Area "Inch"		V <sub>k</sub> Outlet Velocity "FPM"							
		300	400	500	600	700	800	900	1000
		P <sub>T</sub> Total Pressure "Inches water"							
		0.01	0.03	0.05	0.07	0.10	0.13	0.17	0.21
6 x 6 A <sub>k</sub> = 0.17	CFM	51	68	85	102	119	136	153	170
	NC	51	15	15	16	19	23	26	29
8 x 8 A <sub>k</sub> = 0.33	CFM	99	132	165	198	231	264	297	330
	NC	15	15	15	16	19	23	26	29
10 x 10 A <sub>k</sub> = 0.55	CFM	165	220	275	330	385	440	495	550
	NC	15	15	15	18	21	24	28	30
12 x 12 A <sub>k</sub> = 0.83	CFM	249	332	415	498	581	664	747	830
	NC	15	15	16	19	22	26	29	32
16 x 16 A <sub>k</sub> = 1.55	CFM	465	620	775	930	1085	1240	1395	1550
	NC	15	15	18	21	25	29	32	35
18 x 18 A <sub>k</sub> = 1.99	CFM	597	796	995	1194	1393	1592	1791	1990
	NC	15	15	19	22	26	30	33	36
24 x 24 A <sub>k</sub> = 1.74	CFM	522	696	870	1044	1218	1392	1566	1740
	NC	15	15	18	21	25	29	32	35

Perforated Ceiling Diffuser products are manufactured by Khedr Trust Co.

- V<sub>k</sub> Outlet Velocity "FPM"
- A<sub>k</sub> Outlet Area "Feet<sup>2</sup>"
- P<sub>s</sub> Static Pressure "Inch Water"
- NC re 8db room

## - Selection Procedure

1. Determine the required CFM per each outlet as per cooling Load Calculation.
2. Determine the recommended Outlet Velocity  $V_k$  according to application as per following Table.
3. Select the size that give the required CFM at recommended outlet velocity from performance data tables.

Application	$V_k$ Outlet Velocity "FPM"
Broadcast Studios	300-500
Residences	500-750
Apartments	500-750
Mosques , Churches	500-750
Hotel Bedrooms	500-750
Theaters	500-750
Private Offices, Acoustically Treated	500-750
Private Offices, not Treated	500-800
General Offices	1000-1250
Dept. Stores	1500

Perforated Ceiling Diffuser products are manufactured by Khedr Trust Co.

Table (1) – Recommended Outlet Velocity \*

\* Table 20—Carrier Handbook - Part 2. Air Distribution - Chapter 3. Room Air Distribution—p.72

**- Selection Procedure Example**

1. Required 400 CFM as per cooling load calculations.
2. The recommended outlet velocity ranges from 300 – 500 FPM.
3. The size of air outlet :
  - A. Size 12" X 12" at 500 FPM.
  - B. Size 16" X 16" at 300 FPM.

Neck Size "Inch" /Outlet Area "Inch"		V <sub>k</sub> Outlet Velocity "FPM"		
		300	400	500
		P <sub>T</sub> Total Pressure "Inches water"		
		0.01	0.03	0.05
12 x 12 A <sub>k</sub> = 0.83	CFM	249	332	415
	NC	51	15	16
16 x 16 A <sub>k</sub> = 1.55	CFM	465	620	775
	NC	15	15	18

Perforated Ceiling Diffuser products are manufactured by Khedr Trust Co.

## - How to oprder

<b>Type</b>	PCD-D	PCD-F PCD-D	Flushed Face Drop Face
<b>Material</b>	A	A S	Aluminum Steel
<b>Size</b>	24 x 24	L X W " Inch"	
<b>Finish</b>	1	0 1 2	Aluminum White Color Other Colors
<b>Damper</b>	0	0 1	Without Damper With Damper

Perforated Ceiling Diffuser products are manufactured by Khedr Trust Co.

Other Products are provided by Khedr Trust Co.

#### Diffusers & Grills

Slot Linear Diffuser  
Eye Ball Diffuser  
Circular Ceiling Diffuser  
Swirl Diffuser  
Perforated Ceiling Diffuser  
Jet Diffuser  
Square Ceiling Diffuser  
Disc Valve Diffuser  
Linear Bar Grill  
Supply / Return Grill  
Door Grill

#### Louvers

Aluminum Louver  
Sand Trap Louver

#### Dampers

Volume Damper  
Fire Damper  
Smoke Motorized Damper  
Shutter Damper  
Pressure Relief Damper

#### Special Parts

Sound Attenuator  
Plenum Box

#### Duct Works

Galvanized Steel Duct  
Black Steel Duct  
Stainless Steel Duct  
Spiral Duct  
Flexible Duct  
Canvas  
Flanges  
Flexible Duct Connector



# Khedr Trust

ALL AIR PRODUCTS



Alqanater Alkhairia roads.Industrial Area. Behind Cocacola Co.. Cairo, Egypt

Mailing Address : P.O.Box 13621. Cairo 11511 - Egypt

Tel : +202 42452022

Mob : +2010 29999054 / +2010 29999056

+2010 29999057 / +2010 29999058

E-Mail : info@khedr-eg.com



www.khedr-eg.com

