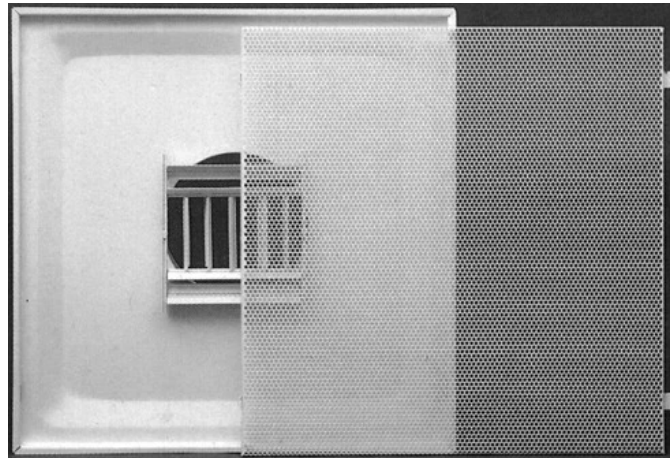




**Perforated Diffuser
PD**

**DESCRIPTION:**

The perforated face diffuser features an extruded aluminum border and mounting frame that match seamlessly for a flush mount that blends with most ceiling tiles. This diffuser makes use of a hinged, removable perforated faceplate with quick-release spring latches for easy access to pattern controllers, dampers, and duct work.

Manufactured from heavy gauge steel to prevent damage and hand inspected to guarantee product quality that exceeds expectations. Rigid design and scratch resistant powder coat finish ensure a lifetime of maintenance free operation.

CONSTRUCTION:

Steel (Standard)

Aluminum (Optional)

APPLICATION:

Perforated ceiling diffusers combine exceptional performance and the desirable architectural appeal of extruded aluminum construction for highly efficient heating, cooling, and air ventilation applications..

FINISHING:

- Powder coated in RAL9010 colour as standard. Other colours on request

INSTALLATION:

- 24" x 24" T-bar lay-in

ACCESSORIES:

- D: Damper
- PB: Plenum Box



STANDARD SIZES:

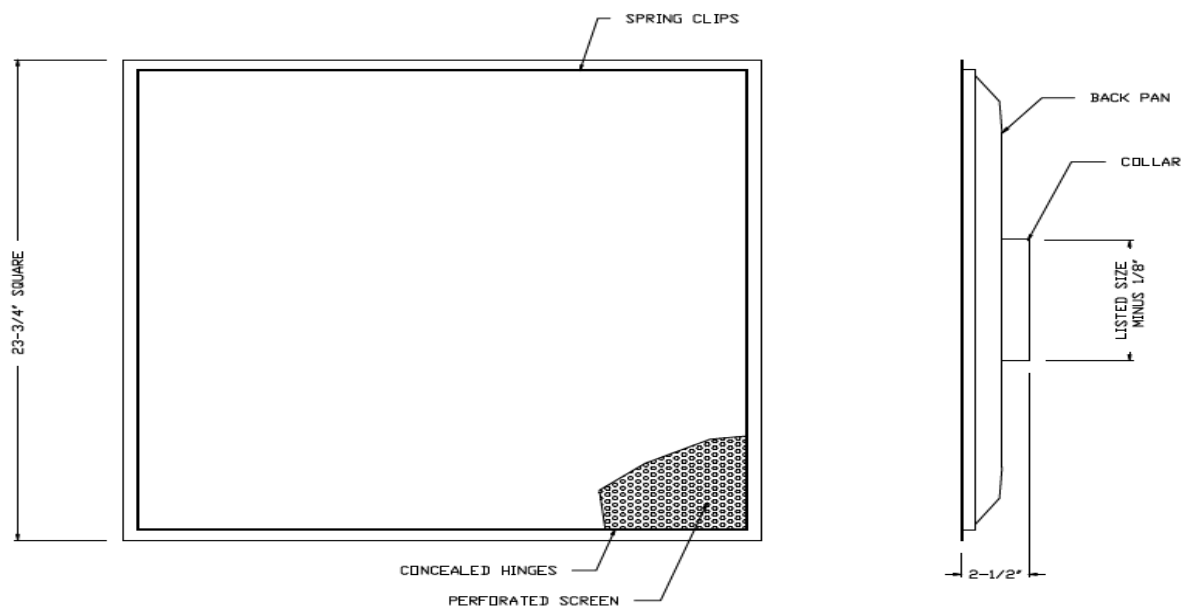
TYPE PRD-PSD AVAILABLE SIZES (in)		
PRD-1 PRD-2	FRAME SIZE MODULE	PRD-3
Diameter	24" x 24"	Dimension
6"	X	6"x6"
8"	X	8"x8"
10"	X	10"x10"
12"	X	12"x12"
14"	X	14"x14"

TYPE PSD1-2 AVAILABLE SIZES (in)	
	FRAME SIZE MODULE
Diameter	24" x 24"
6"	X
8"	X
10"	X
12"	X
14"	X

TECHNICAL DRAWINGS

PRD-1 PERFORATED RETURN DIFFUSER

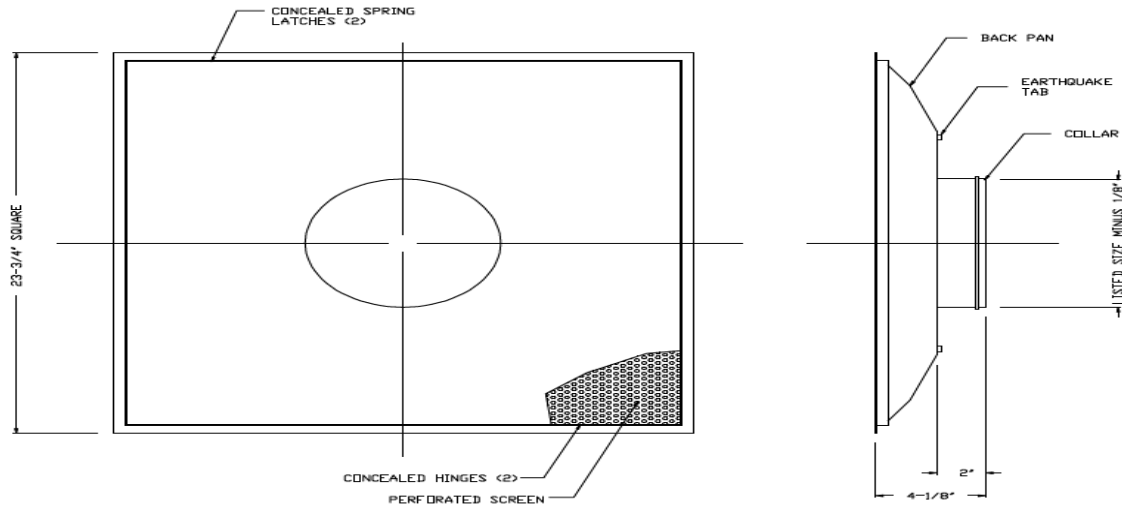
REMOVABLE FACE, STEEL BACK, T-BAR STEEL



1. STEEL CONSTRUCTION
2. 24" x 24" T-BAR LAY-IN
3. PERFORATED FACE PANEL
4. STEEL BACK PANEL
5. CONCEALED HINGES AND LATCHES
6. INCLUDES INTEGRAL COLLAR (6" – 14") TO ACCEPT MODEL BDS OR RSD DAMPERS
7. FOR DAMPER OPTION – ADD 'D' TO PART STRING
8. WHITE FINISH - OPTIONAL BLACK FINISH ON BACK PANEL

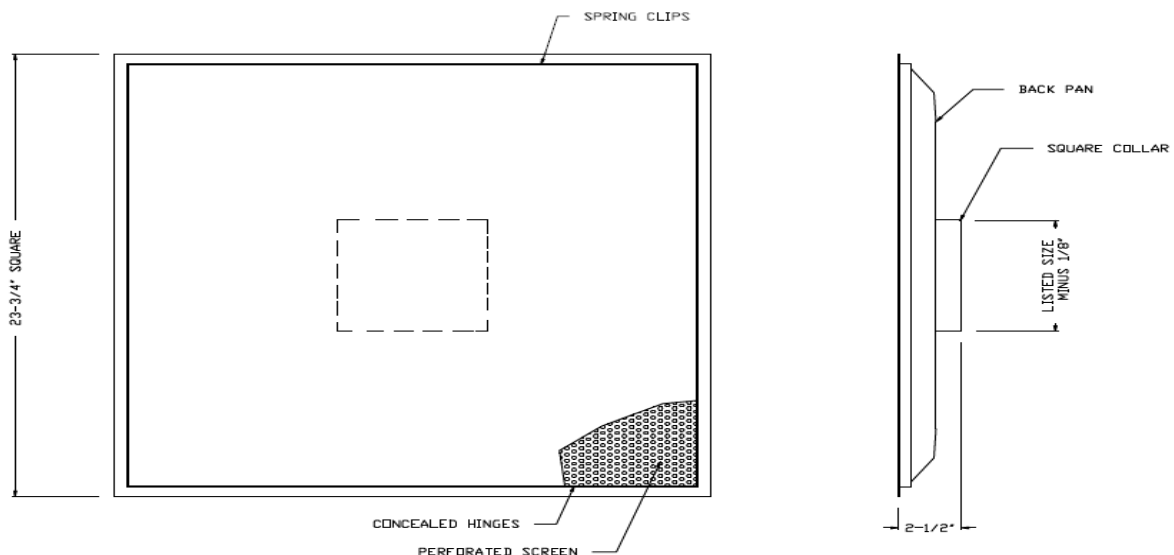


PRD-2 PERFORATED RETURN, REMOVABLE FACE, STEEL BACK, T-BAR STEEL



1. STEEL CONSTRUCTION
2. 24" x 24" T-BAR LAY-IN
3. PERFORATED FACE PANEL
4. STEEL BACK PANEL
5. CONCEALED HINGES AND LATCHES
6. INCLUDES INTEGRAL COLLAR (6" – 14") TO ACCEPT MODEL BDS OR RSD DAMPERS
7. WHITE FINISH - OPTIONAL BLACK FINISH ON BACK PANEL

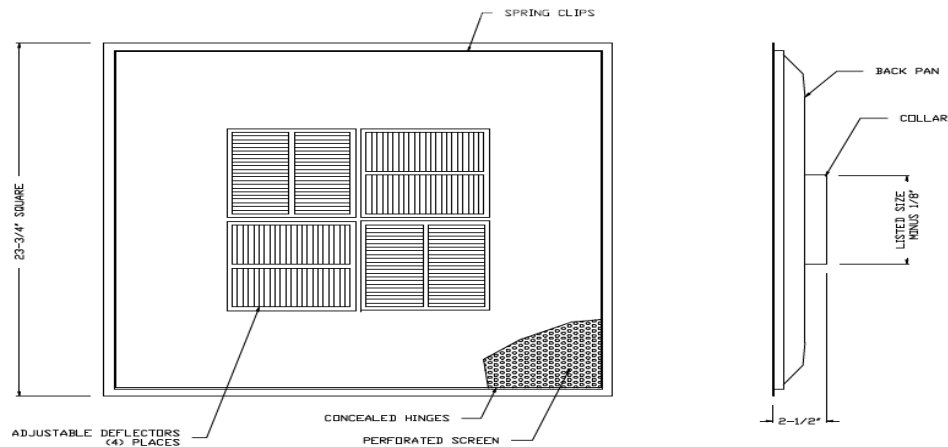
PRD-3 PERFORATED RETURN DIFFUSER, REMOVABLE FACE, SQUARE NECK, STEEL BACK, T-BAR STEEL



1. STEEL CONSTRUCTION
2. 24" x 24" T-BAR LAY-IN
3. PERFORATED FACE PANEL
4. STEEL BACK PANEL
5. CONCEALED HINGES AND LATCHES
6. INCLUDES INTEGRAL SQUARE COLLAR (6"x6" – 22"x22")
7. OPTIONAL OB DAMPER AVAILABLE – ADD 'D' TO PART STRING
8. WHITE FINISH - OPTIONAL BLACK FINISH ON BACK PANEL

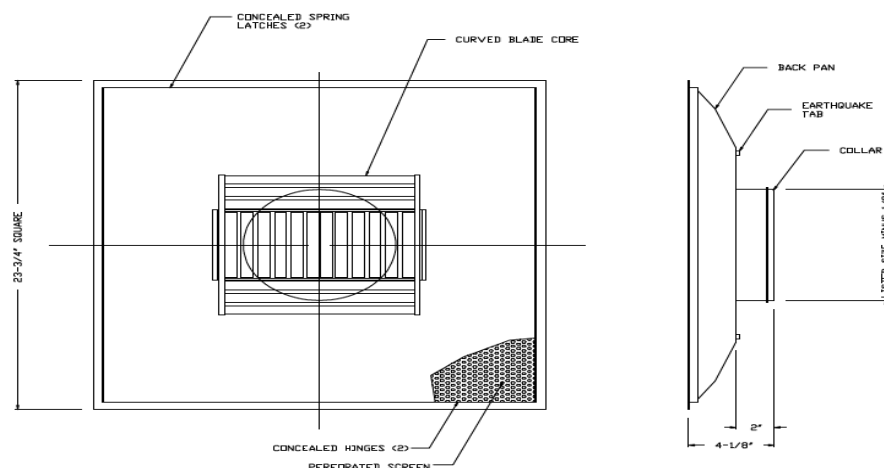


PSD-1 PERFORATED SUPPLY DIFFUSER W/PATTERN DEFLECTORS, REMOVABLE FACE, STEEL BACK, T-BAR STEEL



1. STEEL CONSTRUCTION – BACK PANEL
2. STEEL PERFORATED FACE PANEL
3. 24" x 24" T-BAR LAY-IN
4. CONCEALED HINGES AND LATCHES
5. INCLUDES ADJUSTABLE PATTERN DEFLECTORS ON BACK OF FACE PANEL
6. INCLUDES INTEGRAL COLLAR (6" – 14") TO ACCEPT MODEL BDS OR RSD DAMPERS
7. WHITE FINISH - OPTIONAL BLACK FINISH ON BACK PANEL
8. OPTIONAL DAMPER (BDS) SHIPPED SEPARATELY – ADD 'D' TO PART STRING
9. ALSO AVAILABLE IN A 12X12 UNIT – 6" OR 8" NECK AVAILABLE

PSD-2 CURVED BLADE PERFORATED SUPPLY, REMOVABLE FACE, STEEL BACK, T-BAR STEEL



1. STEEL CONSTRUCTION
2. 24" x 24" T-BAR LAY-IN
3. PERFORATED FACE PANEL
4. STEEL BACK PANEL
5. CONCEALED HINGES AND LATCHES
6. INCLUDES ADJUSTABLE CURVED BLADE PATTERN DEFLECTORS ATTACHED TO BACK PANEL
7. INCLUDES INTEGRAL COLLAR (6" – 14") TO ACCEPT MODEL BDS OR RSD DAMPERS
8. WHITE FINISH - OPTIONAL BLACK FINISH ON BACK PANEL



PERFORMANCE DATA:

Model PRD-1

Neck Size	Inlet Velocity	300	400	500	600	700	800	900	1000
	Ps	-.01	-.02	-.03	-.04	-.05	-.06	-.08	-.10
6"	CFM	60	80	100	115	135	155	175	195
8"	CFM	105	140	175	210	245	280	315	350
10"	CFM	165	220	270	325	380	435	490	545
12"	CFM	235	315	390	470	550	630	705	785
14"	CFM	320	425	535	640	750	855	930	1070
15"	CFM	369	492	615	738	861	984	1107	1203

Notes

All Units have been tested in accordance with ANSI / ASHRAE 70-2006. Data in table is derived from such testing

Ps - Static pressure required to obtain listed cfm, units of inches water gauge (in. wg.)

NC- Calculated noise criteria using 10 dB per octave room attenuation (dimensionless).

Throw - Non-isothermal throw, in feet, for a terminal velocity of 50 fpm

Inlet Velocity = fpm (Feet Per Minute)

Model PRD-2

Return Neck Size	Inlet Velocity	300	400	500	600	700	800	900	1000
	Ps	-.01	-.02	-.03	-.04	-.05	-.06	-.08	-.10
6"x6"	CFM	60	80	100	115	135	155	175	195
8"x8"	CFM	105	140	175	210	245	280	315	350
10"x10"	CFM	165	220	270	325	380	435	490	545
12"x12"	CFM	235	315	390	470	550	630	705	785
14"x14"	CFM	320	425	535	640	750	855	930	1070

Notes

All Units have been tested in accordance with ANSI / ASHRAE 70-2006. Data in table is derived from such testing

Ps - Static pressure required to obtain listed cfm, units of inches water gauge (in. wg.)

NC- Calculated noise criteria using 10 dB per octave room attenuation (dimensionless).

Throw - Non-isothermal throw, in feet, for a terminal velocity of 50 fpm

Inlet Velocity = fpm (Feet Per Minute)

Model PRD-3

Neck Size	Inlet Velocity	300	400	500	600	700	800	900	1000
	Ps	-.01	-.02	-.03	-.04	-.05	-.06	-.08	-.10
6"	CFM	60	80	100	115	135	155	175	195
8"	CFM	105	140	175	210	245	280	315	350
10"	CFM	165	220	270	325	380	435	490	545
12"	CFM	235	315	390	470	550	630	705	785
14"	CFM	320	425	535	640	750	855	930	1070
15"	CFM	369	492	615	738	861	984	1107	1203

Notes

All Units have been tested in accordance with ANSI / ASHRAE 70-2006. Data in table is derived from such testing

Ps - Static pressure required to obtain listed cfm, units of inches water gauge (in. wg.)

NC- Calculated noise criteria using 10 dB per octave room attenuation (dimensionless).

Throw - Non-isothermal throw, in feet, for a terminal velocity of 50 fpm

Inlet Velocity = fpm (Feet Per Minute)



Model PSD-1

Neck Size	Inlet Velocity	300	400	500	600	700	800	1000
6"	CFM	60	80	100	115	135	155	195
	Ps	.006	.012	.018	.022	.031	.043	.069
	NC	<	<	>	<	20	24	31
	Throw	4-W	3	4	4	5	6	7
		3-W	3	4	5	6	6	8
		2-W	4	5	5	6	7	9
		1-W	5	5	6	7	8	9
		10						
8"	CFM	105	140	175	210	246	28	350
	Ps	.011	.021	.032	.047	.064	.084	.133
	NC	<	<	<	21	26	30	36
	Throw	4-W	3	5	5	6	8	10
		3-W	3	5	5	6	8	11
		2-W	4	6	6	7	9	12
		1-W	5	6	7	8	10	13
		14						
10"	CFM	165	220	270	325	380	435	545
	Ps	.014	.025	.037	.054	.075	.098	.156
	NC	<	<	22	28	33	37	43
	Throw	4-W	4	5	6	7	8	10
		3-W	4	6	7	8	9	12
		2-W	5	6	8	8	10	14
		1-W	6	7	9	10	11	14
		16						
12"	CFM	235	315	390	470	550	630	785
	Ps	.026	.049	.074	.108	.149	.196	.305
	NC	<	<	25	29	35	40	46
	Throw	4-W	4	8	8	10	11	12
		3-W	5	8	9	11	13	14
		2-W	6	9	11	12	13	15
		1-W	8	9	12	13	14	16
		18						
14"	CFM	320	425	535	640	750	855	1070
	Ps	.033	.058	.092	.133	.182	.237	.373
	NC	<	23	29	34	39	44	50
	Throw	4-W	6	8	11	13	14	15
		3-W	7	9	12	14	16	17
		2-W	8	10	13	15	17	18
		1-W	9	11	14	16	18	19
		20						

Notes

All Units have been tested in accordance with ANSI / ASHRAE 70-2006. Data in table is derived from such testing

Ps - Static pressure required to obtain listed cfm, units of inches water gauge (in. wg.)

NC- Calculated noise criteria using 10 dB per octave room attenuation (dimensionless).

Throw - Non-isothermal throw, in feet, for a terminal velocity of 50 fpm

Inlet Velocity = fpm (Feet Per Minute)



Model PSD-2

Neck Size	Inlet Velocity	300	400	500	600	700	800	1000	1200
6"	CFM	60	80	100	120	135	155	195	235
	Ps	.009	.016	.025	.038	.044	.059	.095	0.139
	NC	<	<	<15	19	23	26	30	35
	Throw 4-W	5	6	6	7	7	8	9	10
	3-W	5	6	7	7	8	9	10	10
8"	2-W	5	7	8	8	9	10	11	12
	1-W	9	11	12	13	14	15	17	18
	CFM	105	140	175	210	245	280	350	420
	Ps	.010	.018	.028	.041	.055	.072	.113	.162
	NC	<	<	<15	19	24	27	31	37
10"	Throw 4-W	6	7	8	9	10	10	12	13
	3-W	7	8	9	10	11	11	13	14
	2-W	7	9	10	11	12	13	14	16
	1-W	12	14	16	17	19	20	22	24
	CFM	165	220	275	325	380	435	545	655
12"	Ps	.011	.020	.031	.044	.059	.078	.124	.178
	NC	<	<	<15	20	25	29	34	39
	Throw 4-W	8	9	10	11	12	13	15	16
	3-W	8	10	11	12	13	14	16	18
	2-W	9	11	13	14	15	16	18	20
14"	1-W	15	18	20	21	23	25	28	30
	CFM	235	315	395	470	550	630	785	940
	Ps	.012	.023	.036	.052	.070	.093	.144	.205
	NC	<	<15	15	22	27	31	36	42
	Throw 4-W	9	11	12	13	15	16	17	19
16"	3-W	10	12	14	15	16	17	19	21
	2-W	11	14	15	17	18	19	21	23
	1-W	18	21	24	26	28	30	33	36
	CFM	320	430	535	640	750	855	1070	1285
	Ps	.011	.021	.032	.046	.063	.082	.129	.186
18"	NC	<	<15	16	24	29	33	38	44
	Throw 4-W	12	15	16	18	19	21	23	25
	3-W	13	16	18	20	21	23	26	28
	2-W	14	18	20	22	24	26	29	31
	1-W	24	28	31	34	37	40	44	19

Notes

All Units have been tested in accordance with ANSI / ASHRAE 70-2006. Data in table is derived from such testing

Ps - Static pressure required to obtain listed cfm, units of inches water gauge (in. wg.)

NC- Calculated noise criteria using 10 dB per octave room attenuation (dimensionless).

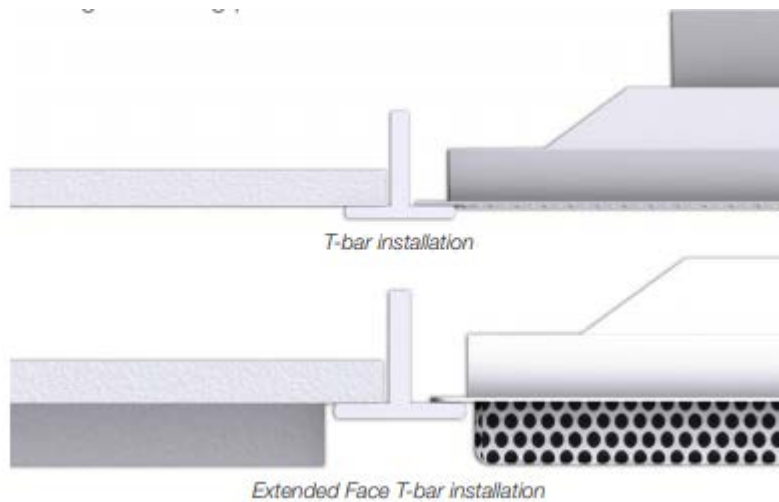
Throw - Non-isothermal throw, in feet, for a terminal velocity of 50 fpm

Inlet Velocity = fpm (Feet Per Minute)



EXTENDED FACE

An extended face option is available to accommodate tegular style ceilings by extending the diffuser face $\frac{3}{8}$ in. below the t-bar plane so that the diffuser face is flush with tegular ceiling panels.





ORDER CODE

PRD	-	1	8"	RAL9010	T	24" X 24"
			inlet			
PRD -						Frame size
PSD -						Outsize
PRD- 1						
PRD- 2						
PRD- 3						T: T-Bar Lay-in
PSD- 1						
PSD- 2						
6"						00: Without Coating
8"						
10"						
12"						
14"						RAL----: Powder Coating