

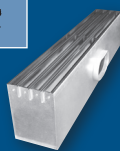
Table of Contents


PTBS

This plenum slot supply diffuser features an adjustable blade.

Slots: 1 to 4

Slot Widths: ¾", 1", 1½"


PTBA

This plenum slot supply diffuser features 'Ice Tong' blades.

Slots: 1 to 4

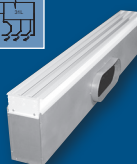
Slot Widths: ¾", 1"


PTBT

This plenum slot supply diffuser features fixed, curved blades.

Slots: 1 to 4*

* 1 to 4 slots available with 1-way deflection, 2 to 4 slots available with 2-way deflection.


PTBSS, PTBSSFB, & PFTBS (FR)

These plenum slot supply diffusers feature a fixed curved blade.

Available with fire damper (PFTBS) and factory installed blades (PTBSSFB).

Slots: 1 or 2

Slot Widths: ¾", 1", 1½"
 **¾" Slot width only available on model PFTBS.


PTBSC, PTBSRC

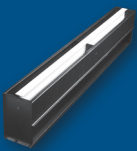
The plenum slot supply (PTBSC) diffuser features a fixed horizontal pattern controller to provide 1-way airflow; also available with a return slot (PTBSRC).


PTBSCDB, PTBSRCDB

The plenum slot supply (PTBSCDB) diffuser features a center downblow and a fixed horizontal pattern controller to provide 1-way airflow; also available with a return slot (PTBSRCDB).


PTBR/PFTBR (FR)

These plenum slot return diffusers are available with a fire damper (PFTBR) or without (PTBR).


PTBS

Introduction & Dimensional Information	F1-3
Accessories.....	F1-5
Reference Charts.....	F1-7
Performance Data.....	F1-9
Engineering Specification	F1-27

PTBA

Introduction & Dimensional Information	F1-28
Accessories.....	F1-30
Reference Charts.....	F1-31
Performance Data.....	F1-33
Engineering Specification	F1-41

PTBT

Introduction & Dimensional Information	F1-42
Pattern Designations & Plaster Frame.....	F1-43
Inlet Collars.....	F1-44
Reference Charts.....	F1-45
Performance Data.....	F1-47
Engineering Specification	F1-51

PTBSS, PTBSSFB & PFTBS (Fire Rated)

Introduction & Dimensional Information	F1-52
Accessories.....	F1-54
Reference Charts.....	F1-56
Performance Data.....	F1-58
Engineering Specifications.....	F1-66

PTBSC, PTBSRC, PTBSCDB, PTBSRCDB

Introduction	F1-68
Dimensional Information	F1-69
Reference Charts.....	F1-71
Performance Data.....	F1-73
Engineering Specifications.....	F1-78

PTBR & PFTBR (Fire Rated)

Introduction & Dimensional Information	F1-80
Accessories.....	F1-81
Reference Charts.....	F1-82
Performance Data.....	F1-83
Engineering Specifications.....	F1-87



Introduction: PTBSC, PTBSCDB Series —

The PTBSC series plenum slot diffuser features a curved blade that directs a horizontal discharge air pattern. The PTBSC blades are shipped attached to the unit and are non-removable. The plenum is an integral part of the diffuser and has a drawn inlet collar to prevent plenum air leakage. A return slot is available (PTBSRC) for non-ducted return air systems. The return slot is placed opposite the horizontally discharged supply air to prevent short circuiting the return. This design makes Krueger's PTBSC series diffuser an ideal choice for perimeter areas that need horizontal discharged air and VAV cooling applications.

The PTBSCDB series plenum slot diffuser features a curved blade that directs a horizontal discharge air pattern and a center down blow section that discharges air vertically. The PTBSCDB blades are shipped attached to the unit and are non-removable. The center down blow blades are "ice tong" blades that can be adjusted for vertical angled throw and vertical down blow dampening. The plenum is an integral part of the diffuser and has a drawn inlet collar to prevent plenum air leakage. A return slot is available (PTBSRCDB) for non-ducted return air systems. The return slot is placed opposite the horizontally discharged supply air to prevent short circuiting the return. With a downblow section to wash the window and VAV cooling applications, this design makes Krueger's PTBSCDB series diffuser an ideal choice for perimeter areas with windows that require horizontal discharged air.

MODELS

- | | |
|----------|---|
| PTBSC | - Plenum Slot Supply Diffuser with Fixed Aluminum Curved Blades |
| PTBSRC | - Plenum Slot Supply/Return Combination Diffuser with Fixed Aluminum Curved Blades |
| PTBSCDB | - Plenum Slot Supply Diffuser with Fixed Aluminum Curved Blades & Downblow |
| PTBSRCDB | - Plenum Slot Supply/Return Combination Diffuser with Fixed Aluminum Curved Blades & Downblow |

FEATURES

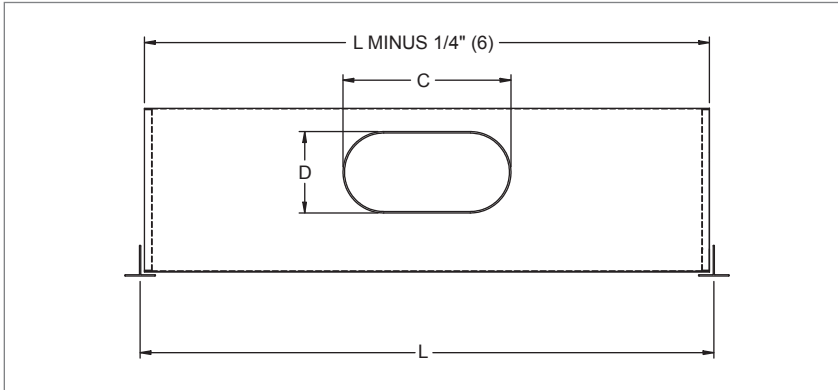
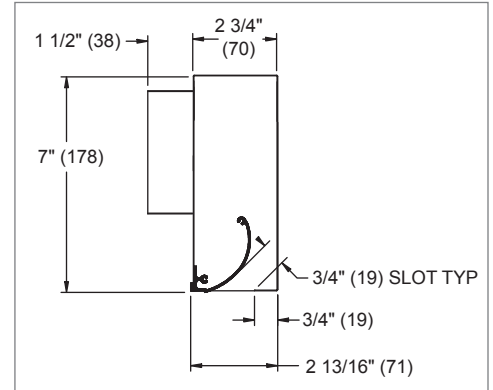
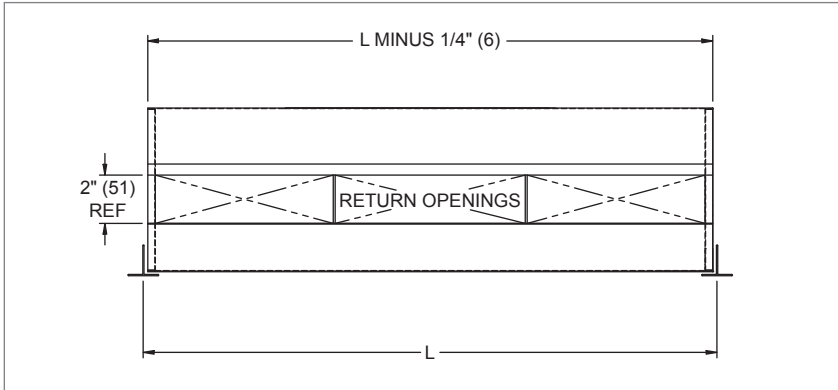
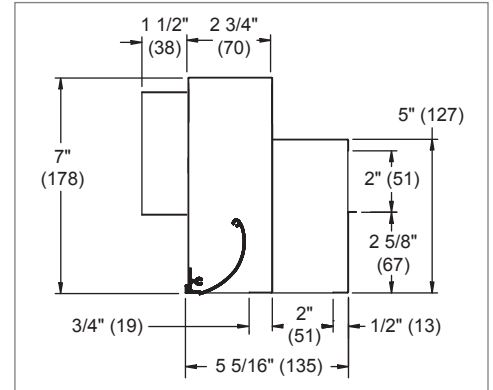
- Slots: 1 (supply) or 2 (supply/return combo).
- Slot Widths: 3/4" (supply) & 2" (return).
- Lengths: 24", 36", 48", and 60".
- Downblow: 8", 12", 15", or 18" (supply/return combo).

ACCESSORIES

- External Insulation
- Plaster Frame

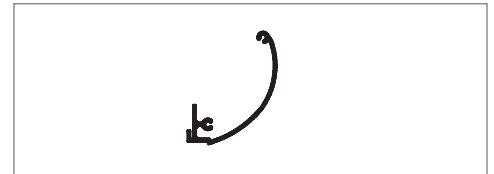
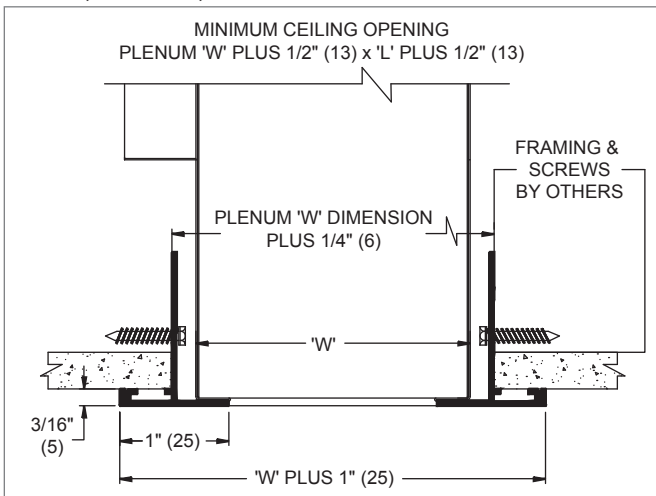
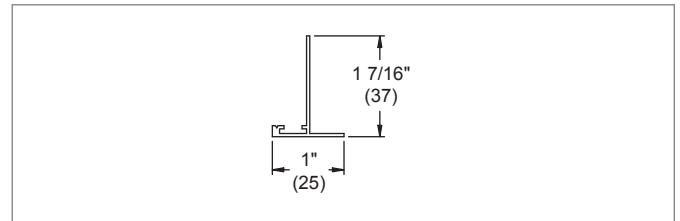
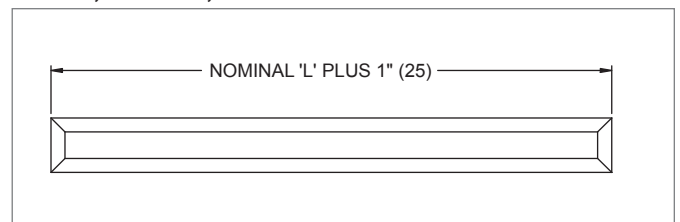
FINISHES

- Standard finish is black face with optional white tees.

PTBSC, PTBSRC Dimensional Information
PTBSC, PTBSRC, INLET SIDE VIEW

PTBSC, CROSS SECTION

PTBSRC, RETURN SIDE VIEW

PTBSRC, CROSS SECTION

PTBSC, PTBSRC, AVAILABLE INLET SIZES

Inlet Size	C	D
6" (152) Oval	7 9/16" (192)	3" (76)
8" (203) Oval	10 1/16" (256)	4" (102)
10" (254) Oval	13 1/4" (337)	4" (102)

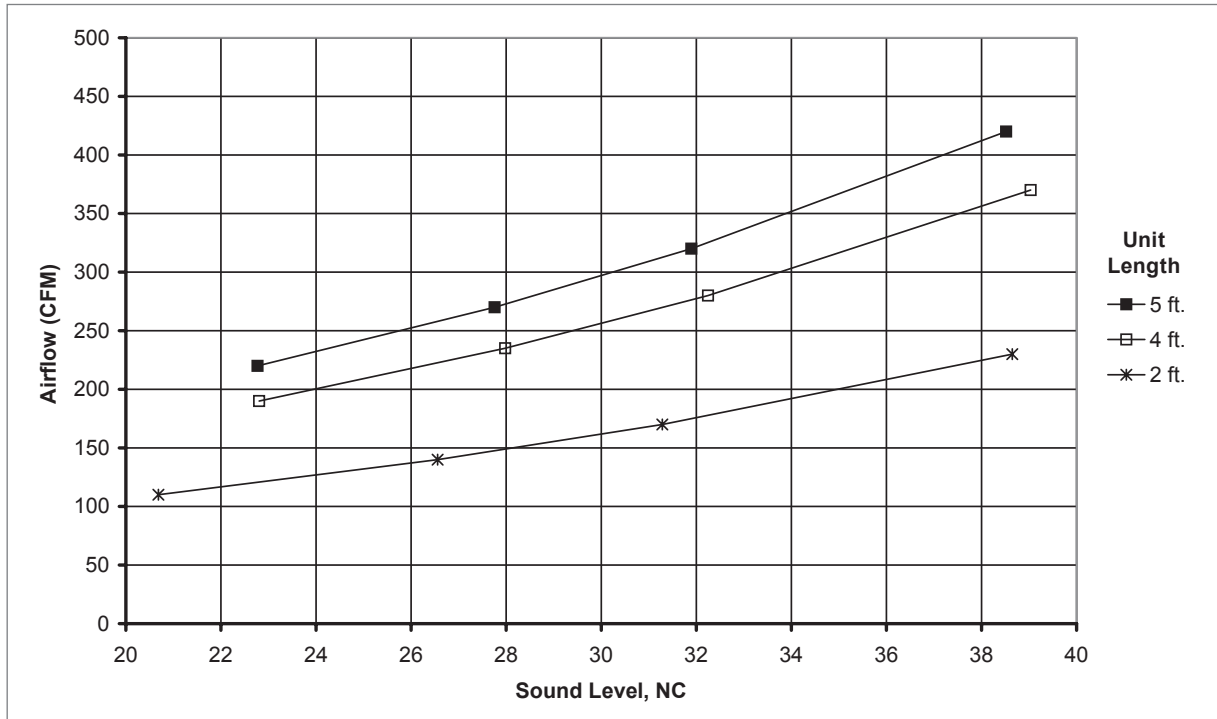
NOTE: Dimensions in parentheses are mm.

PTBSC, PTBSRC, PATTERN CONTROLLER

PTBSC, PTBSRC, PTBSCDB, PTBSRCDB Plaster Frame Details
PTBSC, PTBSRC, PLASTER FRAME ASSEMBLY

PTBSC, PTBSRC, PLASTER FRAME ADAPTER

PTBSC, PTBSRC, PLASTER FRAME FACE VIEW


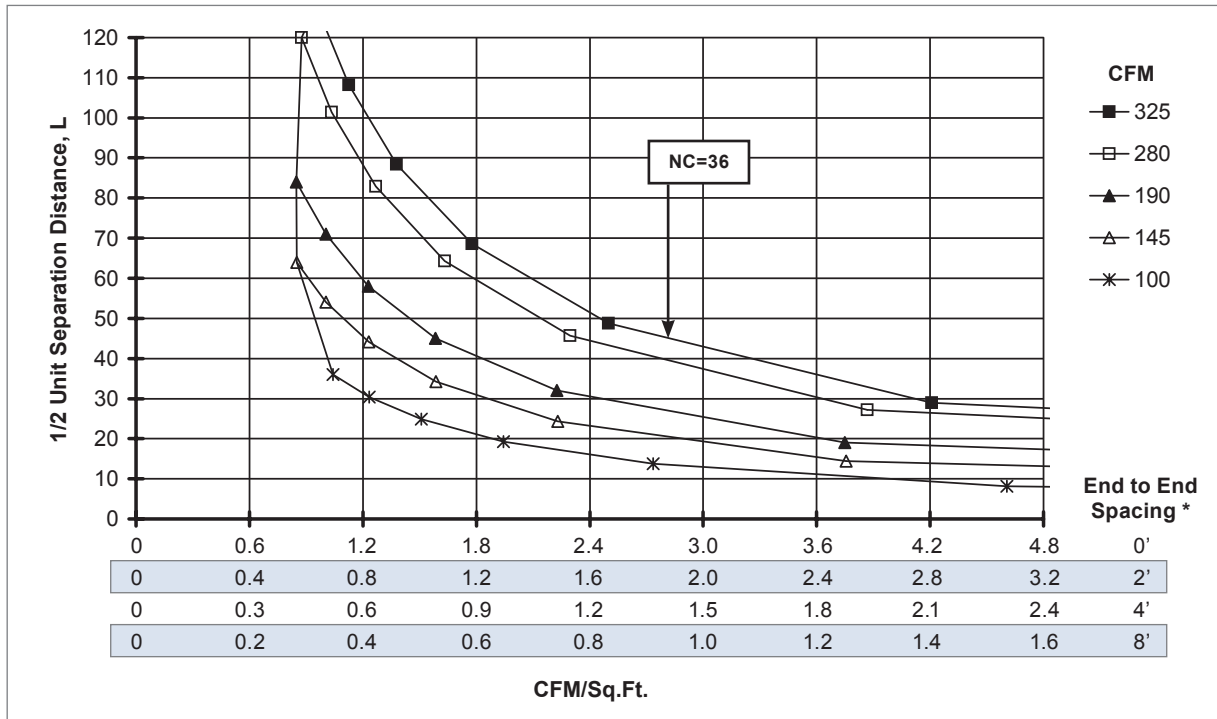
NOTE: Dimensions in parentheses are mm.

PTBSC, PTBSRC Reference Charts: Horizontal Throw

AIRFLOW VS. NC: PTBSC, PTBSRC, 3/4" SLOT WIDTH, 1-SLOT, 8" OVAL INLET, 1-WAY (NO DAMPER)



DIFFUSER SPACING FOR 80% ADPI: PTBSC, PTBSRC, 3/4" SLOT WIDTH, 4 FT., 1-SLOT, 8" OVAL INLET, 1-WAY (NO DAMPER)



NOTES: Bottom chart is at 20 BTUH/ft² load.

See the Engineering section of this catalog for instructions on how to read these charts and additional ADPI information.

* Separation distance in feet between active supply sections discharging in similar directions.

PTBSC, PTBSRC Performance Data: Horizontal Throw

IP/METRIC DATA: PTBSC, PTBSRC (NO DAMPER)

		IP Data					NC	Metric Data				Octave Band, dB						
		Air Flow	Pressure		Throw	Air Flow		Pressure		Throw								
			Ps	Pt				Ps	Pt									
Linear Length		CFM	"WG	"WG	ft		L/s	Pa	Pa	m	2	3	4	5	6	7		
6" Oval Inlet	2'	40	0.018	0.022	2 - 4 - 13	-	19	4.4	5.6	0.5 - 1.2 - 3.8	36	21	12	-	-	-		
		90	0.089	0.114	9 - 14 - 24	21	42	22.2	28.3	2.8 - 4.3 - 7.3	47	40	33	25	25	17		
		115	0.146	0.185	12 - 18 - 27	26	54	36.3	46.1	3.7 - 5.5 - 8.3	51	45	39	32	33	25		
		140	0.216	0.275	15 - 21 - 30	31	66	53.7	68.4	4.5 - 6.5 - 9.2	54	50	44	38	39	31		
		190	0.398	0.506	20 - 25 - 35	39	90	99.0	126.0	6.1 - 7.5 - 10.7	58	57	52	46	49	41		
	4'	80	0.026	0.045	3 - 6 - 18	-	38	6.4	11.2	0.8 - 1.7 - 5.4	40	27	17	13	12	-		
		160	0.103	0.179	10 - 18 - 32	23	76	25.5	44.7	3.1 - 5.4 - 9.8	50	43	35	33	34	28		
		200	0.160	0.280	15 - 22 - 36	29	94	39.9	69.8	4.5 - 6.8 - 10.9	53	49	41	39	41	35		
		240	0.231	0.404	18 - 27 - 39	33	113	57.5	100.5	5.4 - 8.1 - 12.0	55	53	45	45	47	41		
		320	0.410	0.718	24 - 32 - 46	40	151	102.1	178.7	7.2 - 9.8 - 13.8	59	59	52	53	56	50		
	5'	100	0.026	0.056	3 - 6 - 20	-	47	6.5	14.0	0.9 - 1.9 - 6.1	41	29	19	17	16	-		
		190	0.094	0.202	10 - 19 - 35	24	90	23.4	50.4	3.1 - 5.8 - 10.7	50	44	35	35	37	31		
		235	0.144	0.310	16 - 23 - 39	29	111	35.8	77.1	4.8 - 7.1 - 11.9	53	49	41	41	43	38		
		280	0.204	0.439	19 - 28 - 43	33	132	50.9	109.4	5.7 - 8.5 - 12.9	56	53	45	46	49	43		
		370	0.357	0.767	25 - 35 - 49	40	175	88.8	191.1	7.5 - 10.5 - 14.9	60	60	52	54	57	52		
	8" Oval Inlet	2'	50	0.017	0.020	3 - 6 - 16	-	24	4.3	4.9	0.9 - 1.9 - 4.8	36	21	14	-	-	-	
110			0.084	0.096	12 - 17 - 27	21	52	20.9	23.8	3.5 - 5.3 - 8.1	47	39	34	21	21	12		
140			0.136	0.155	15 - 21 - 30	27	66	33.9	38.6	4.5 - 6.5 - 9.2	50	45	40	28	29	19		
170			0.201	0.228	18 - 23 - 33	31	80	50.0	56.9	5.4 - 7.1 - 10.1	53	49	45	34	35	26		
230			0.367	0.418	22 - 27 - 39	39	109	91.5	104.1	6.8 - 8.3 - 11.7	57	56	53	42	44	35		
4'		100	0.030	0.040	4 - 9 - 22	-	47	7.5	9.8	1.2 - 2.7 - 6.8	40	27	19	-	-	-		
		190	0.108	0.143	14 - 21 - 35	23	90	26.9	35.5	4.3 - 6.4 - 10.7	49	42	35	29	29	21		
		235	0.165	0.218	17 - 26 - 39	28	111	41.2	54.3	5.3 - 8.0 - 11.9	52	47	41	35	36	28		
		280	0.235	0.310	21 - 30 - 43	32	132	58.5	77.1	6.3 - 9.2 - 12.9	54	51	45	40	41	34		
		370	0.410	0.541	28 - 35 - 49	39	175	102.1	134.7	8.4 - 10.5 - 14.9	58	57	52	48	50	43		
5'		120	0.032	0.046	4 - 9 - 24	-	57	7.9	11.3	1.2 - 2.8 - 7.3	41	28	19	13	12	-		
		220	0.107	0.153	14 - 22 - 38	23	104	26.6	38.1	4.2 - 6.7 - 11.5	49	42	35	30	31	24		
		270	0.161	0.230	18 - 27 - 42	28	127	40.1	57.4	5.5 - 8.2 - 12.7	52	47	40	36	37	30		
	320	0.226	0.324	21 - 32 - 46	32	151	56.3	80.6	6.5 - 9.7 - 13.8	54	51	44	41	43	36			
	420	0.389	0.557	28 - 37 - 52	39	198	96.9	138.8	8.5 - 11.2 - 15.9	58	57	51	49	51	45			
10" Oval Inlet	4'	120	0.035	0.042	6 - 13 - 27	-	57	8.6	10.5	1.7 - 3.9 - 8.1	41	29	21	-	-	-		
		220	0.117	0.142	16 - 25 - 38	24	104	29.0	35.4	5.0 - 7.5 - 11.5	49	43	37	28	28	20		
		270	0.176	0.214	20 - 30 - 42	29	127	43.7	53.3	6.1 - 9.0 - 12.7	52	47	42	34	35	26		
		320	0.247	0.300	24 - 32 - 46	33	151	61.4	74.8	7.2 - 9.8 - 13.8	54	51	46	39	40	32		
		420	0.425	0.518	30 - 37 - 52	40	198	105.8	128.9	9.2 - 11.2 - 15.9	58	58	53	46	49	41		
	5'	140	0.036	0.046	6 - 12 - 28	-	66	8.9	11.5	1.7 - 3.8 - 8.5	41	29	21	12	11	-		
		250	0.114	0.147	17 - 25 - 40	23	118	28.3	36.5	5.1 - 7.6 - 12.2	49	43	36	29	29	21		
		305	0.169	0.218	20 - 30 - 44	28	144	42.2	54.4	6.2 - 9.3 - 13.5	52	47	41	34	36	28		
	360	0.236	0.304	24 - 34 - 48	32	170	58.8	75.8	7.3 - 10.4 - 14.7	54	51	45	39	41	33			
	470	0.402	0.519	31 - 39 - 55	39	222	100.2	129.1	9.5 - 11.9 - 16.8	58	57	52	47	49	42			

NOTES: Throw values are given for terminal velocities of 150, 100, and 50 FPM (0.75, 0.50, and 0.25 m/s). Throw values for horizontal and vertical throw are given at isothermal conditions. Airflow is given for the length of the unit. NC values are based on octave band 2 - 7 sound power levels minus a room absorption of 10dB, $re 10^{-12}$ Watts. Dash in space denotes a NC or dB value of less than 10. Data was obtained from tests conducted in accordance with ANSI/ASHRAE Standard 70, ISO Standard 5219, and ISO Standard 3741. See selection software for performance data not shown, including octave band data.

PTBSC, PTBSRC Suggested Specification & Configuration

PTBSC

The plenum slot supply diffuser shall be Krueger model PTBSC constructed of 24 gage galvanized steel with factory drawn inlet to prevent air leakage. The PTBSC shall have a single aluminum extruded curved blade that creates a 3/4" slot width opening and discharges horizontally along the ceiling in the direction of the inlet to accommodate perimeter wall mounting applications. The PTBSC shall not exceed 7" in total height.

Optional plaster frame is available for installation in to hard ceilings.

Optional 1/2" thick foil wrapped, 1 1/2 lb. density external insulation is available.

PTBSRC

The plenum slot supply/return diffuser shall be Krueger model PTBSRC constructed of 24 gage galvanized steel with factory drawn inlet to prevent air leakage for the supply side and a 2" slot opening running the length of the plenum for the return side. The PTBSRC shall have a single aluminum extruded curved blade that creates a 3/4" slot width opening and discharge horizontally along the ceiling in the direction of the inlet to accommodate perimeter wall mounting applications. The return slot shall be 2" in width and attached to the supply by the manufacturer. The return slot shall be located opposite the inlet to prevent a short circuit in the return air. The PTBSRC shall not exceed 7" in total height.

Optional plaster frame is available for installation in to hard ceilings.

Optional 1/2" thick foil wrapped, 1 1/2 lb. density external insulation is available.

PERFORMANCE

The manufacturer shall provide published (printed or electronic) performance data for the diffuser. Performance data shall include 2 - 7 octave band sound power levels. The diffuser shall be tested in accordance to the data standards at the time of product introduction or ANSI/ASHRAE Standard 70.

FINISH

The standard finish shall be black on the face and pattern controllers.

1. SERIES: (XXXXXX)

PTBSC - Plenum Slot Diffuser with Fixed Pattern
PTBSRC - Plenum Slot Diffuser with Fixed Pattern and Return Slot

2. INSULATION: (X)

N - No Insulation
Y - Insulation

3. SLOT LENGTH: (XX) *

24", 36", 48", or 60"

4. PLENUM INLET SIZE: (XX)

6", 8", or 10" Oval

5. MOUNTING TYPE: (XX)

00 - No Mounting
PF - Plaster Frame

6. FINISH: (XX)

35 - Black Face and Pattern Controllers

** 10" Inlet not available with 24" Slot Length.*

SAMPLE CONFIGURATION: PTBSRC - Y - 48 - 8 - PF - 35