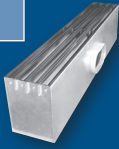




**PTBS**

This plenum slot supply diffuser features an adjustable blade.  
**Slots:** 1 to 4  
**Slot Widths:** ¾", 1", 1½"



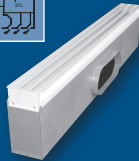
**PTBA**

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.



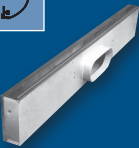
**PTBSS, PTBSSFB, & PFTBS (FR)**

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.



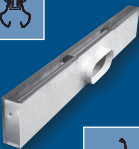
**PTBSC, PTBSRC**

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



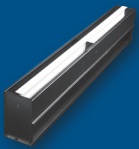
**PTBSCDB, PTBSRCDB**

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**

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**PTBA**

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 Reference Charts..... F1-31  
 Performance Data..... F1-33  
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**PTBT**

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 Inlet Collars ..... F1-44  
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**PTBSS, PTBSSFB & PFTBS (Fire Rated)**

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 Reference Charts..... F1-56  
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**PTBSC, PTBSRC, PTBSCDB, PTBSRCDB**

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**Introduction: PTBT**

The PTBT series plenum slot diffuser features fixed blades for horizontal airflow. Should the inlet orientation interfere with ceiling fixtures or other obstructions, the plenum can be removed from the blade assembly and either portion can be rotated to accommodate the desired application. The inlet collar is removable from the plenum if field retrofit is necessary to change the size of the existing inlet. This design makes Krueger's PTBT series diffuser an ideal choice for tenant areas that have a short tenant life cycles and VAV cooling applications.

**MODEL**

PTBT - Plenum Slot Diffuser with Fixed Blades

**FEATURES**

- Slots: 1, 2, 3, or 4.
- Lengths: 24", 36", 48", and 60".
- Left or right inlet orientation.
- Extruded aluminum blades.
- 1-Way or 2-way fixed discharge air patterns.
- Interchangeable inlets.

**ACCESSORIES**

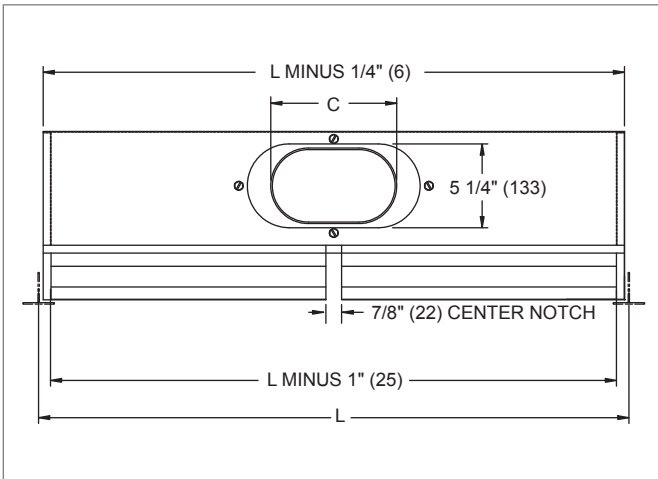
- Insulation
- Plaster Frame

**FINISHES**

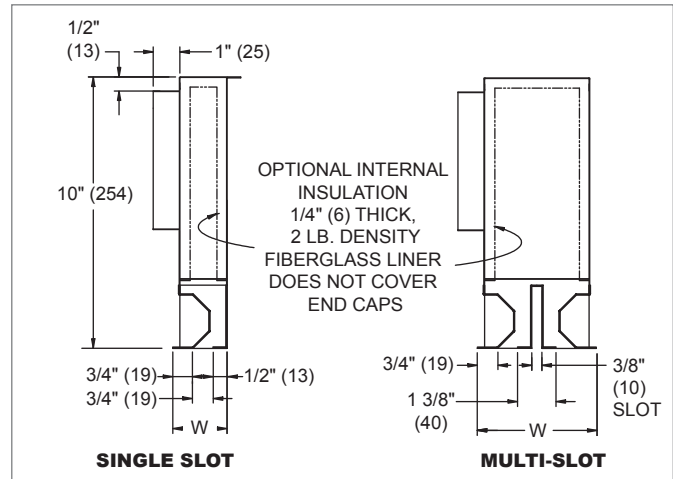
- Standard finish is #44 British White.

**PTBT Dimensional Information**

**PTBT, INLET SIDE VIEW**



**PTBT, CROSS SECTION, SINGLE & MULTI-SLOT**



**PTBT, AVAILABLE SIZES**

Inlet Size	C	L
6" (152) Oval	6 1/4" (159)	24" (610) - 60" (1524)
8" (203) Oval	9 3/8" (238)	24" (610) - 60" (1524)
10" (254) Oval	12 1/2" (317)	24" (610) - 60" (1524)

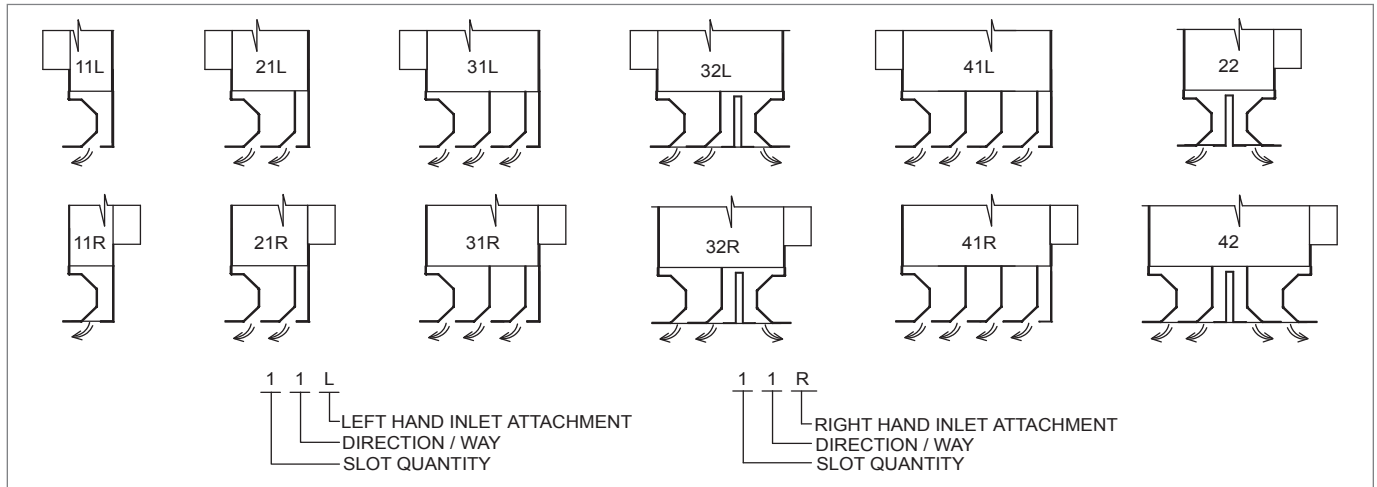
NOTE: Dimensions in parentheses are mm.

**PTBT, FACE WIDTH**

Pattern	W
11L / 11R	2" (51)
21L / 21R	3 1/2" (89)
31L / 31R	5" (127)
41L / 41R	6 1/2" (165)
22	4 3/8" (111)
32L / 32R	5 7/8" (149)
42	7 3/8" (187)

**PTBT Pattern Designations**

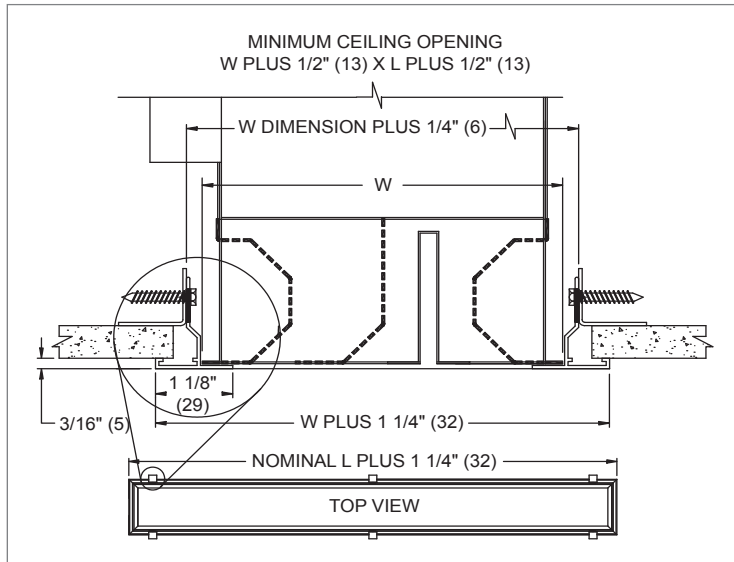
**PTBT, PATTERN DESIGNATIONS**



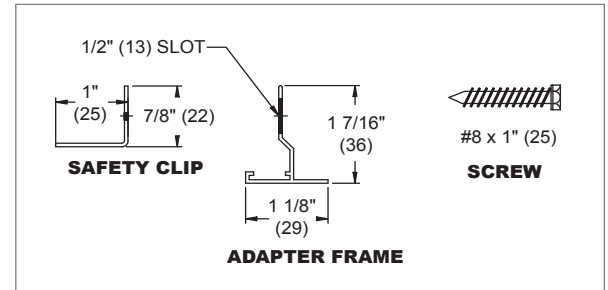
PLENUM SLOT DIFFUSERS

**PTBT Plaster Frame**

**PTBT, PLASTER FRAME ASSEMBLY**



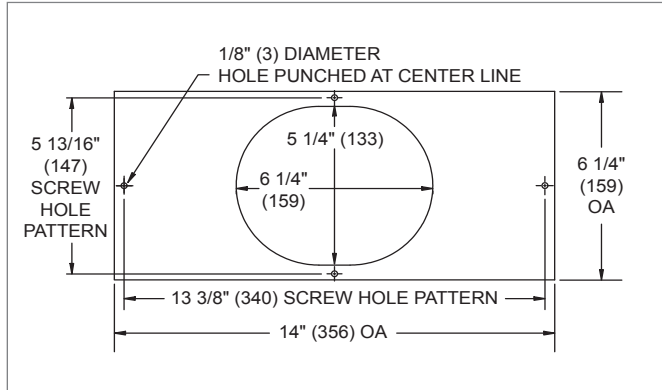
**PTBT, PLASTER FRAME SAFETY CLIP, ADAPTER FRAME, AND SCREW DETAILS**



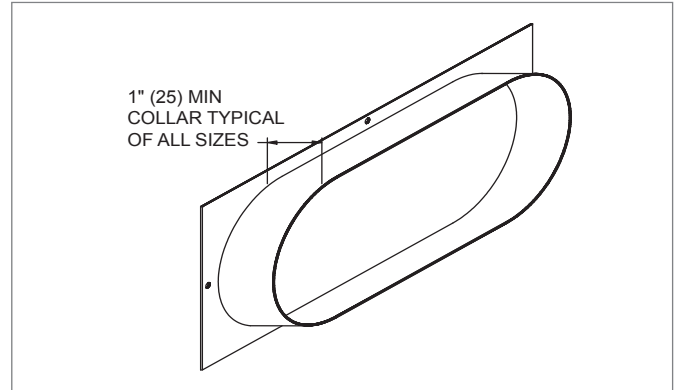
NOTE: Dimensions in parentheses are mm.

**PTBT Inlet Collars**

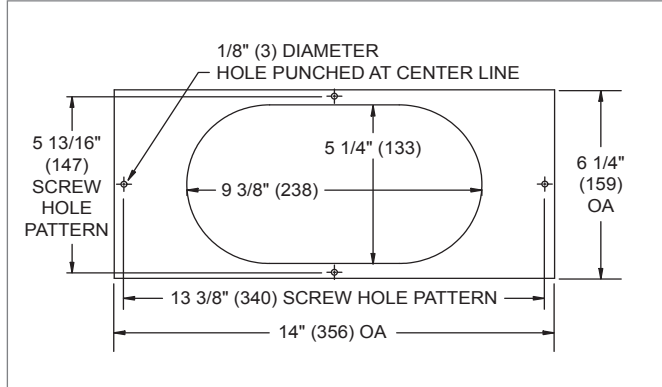
**PTBT, INLET COLLAR, SIZE 6**



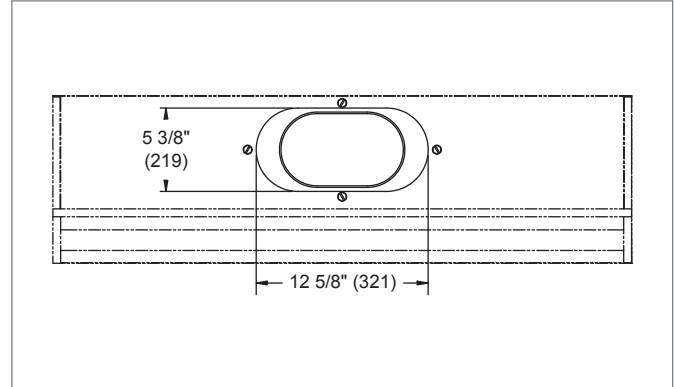
**PTBT, INLET COLLAR ISOMETRIC VIEW**



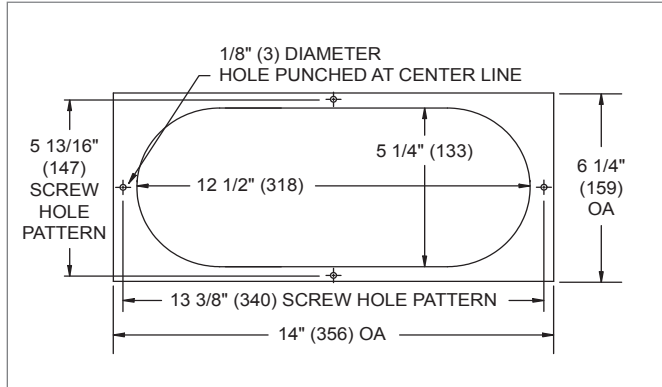
**PTBT, INLET COLLAR, SIZE 8**



**PTBT, CLEARANCE HOLE DETAIL**



**PTBT, INLET COLLAR, SIZE 10**



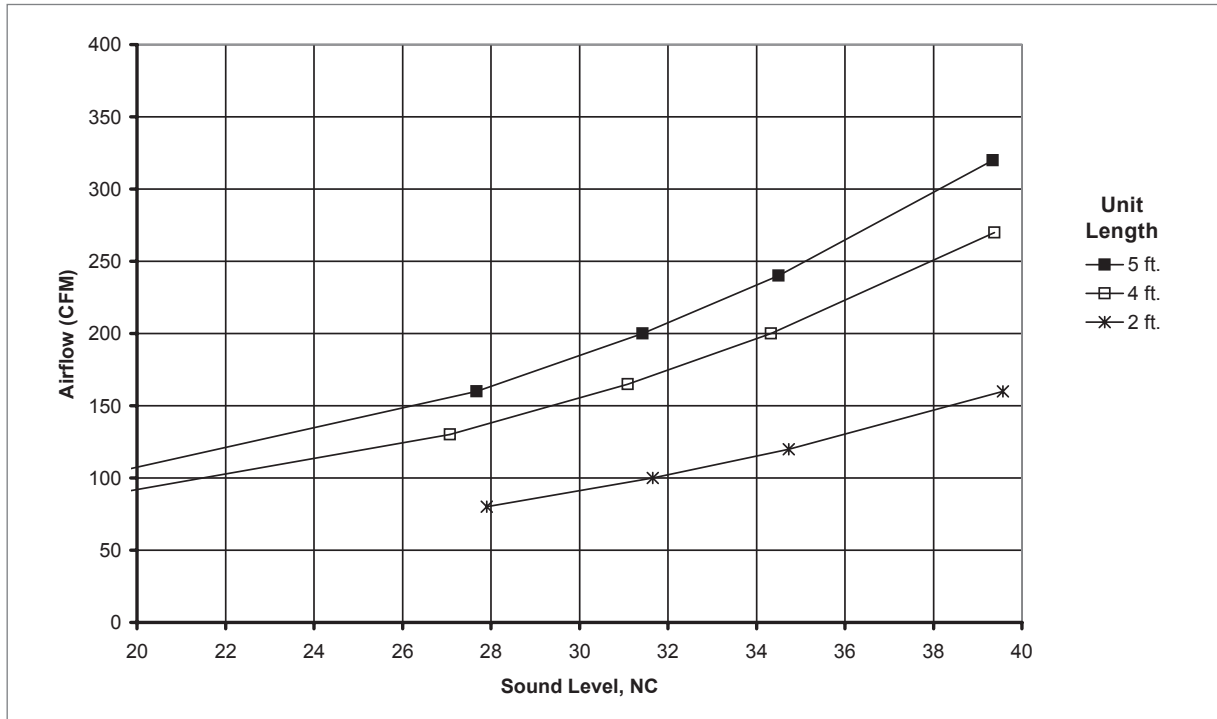
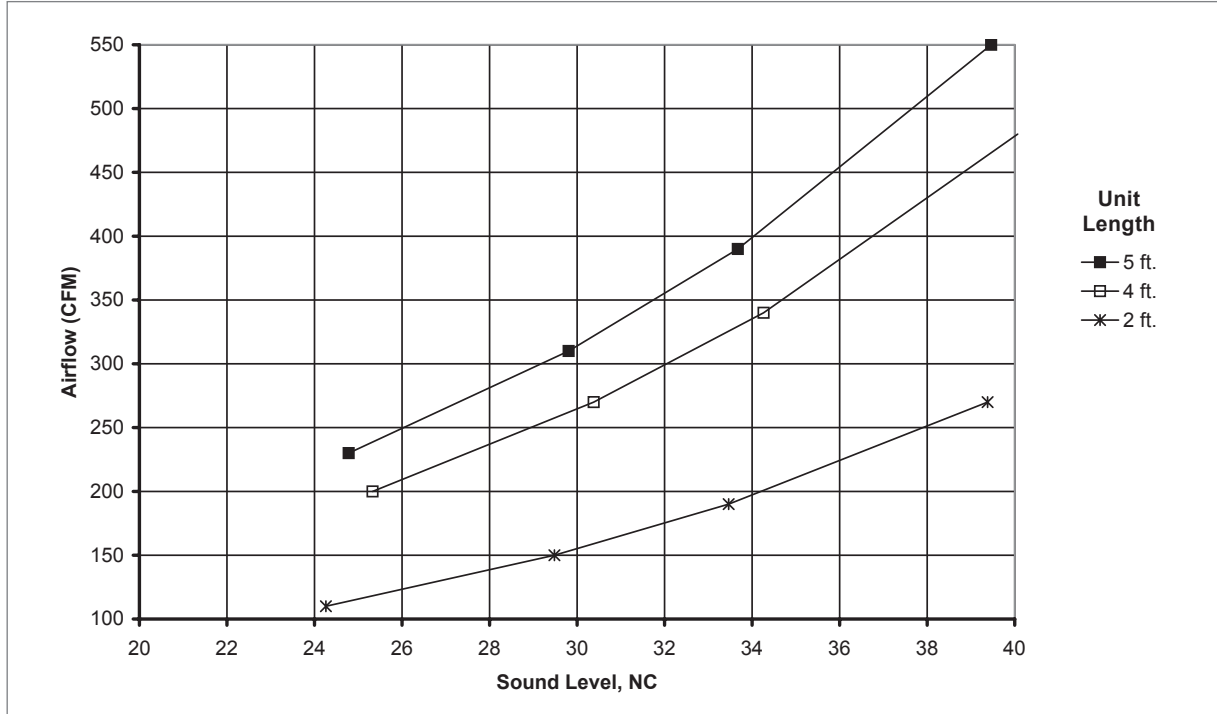
**PTBT, AVAILABLE INLET SIZES**

Nominal Inlet
6" (152) Oval
8" (203) Oval
10" (254) Oval

NOTE: Dimensions in parentheses are mm.

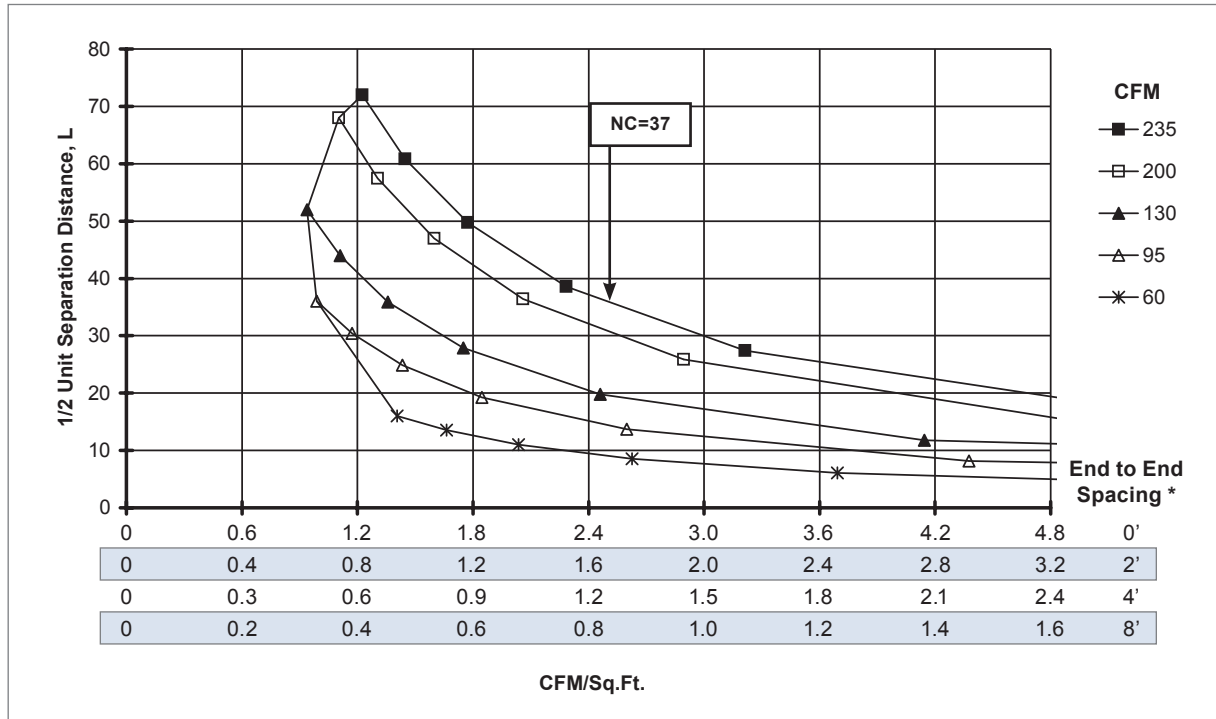
PLENUM SLOT DIFFUSERS

PTBT

**PTBT Reference Charts**
**AIRFLOW VS. NC LEVEL: PTBT, 1-SLOT, 8" OVAL INLET (NO DAMPER)**

**AIRFLOW VS. NC LEVEL: PTBT, 2-SLOT, 8" OVAL INLET (NO DAMPER)**


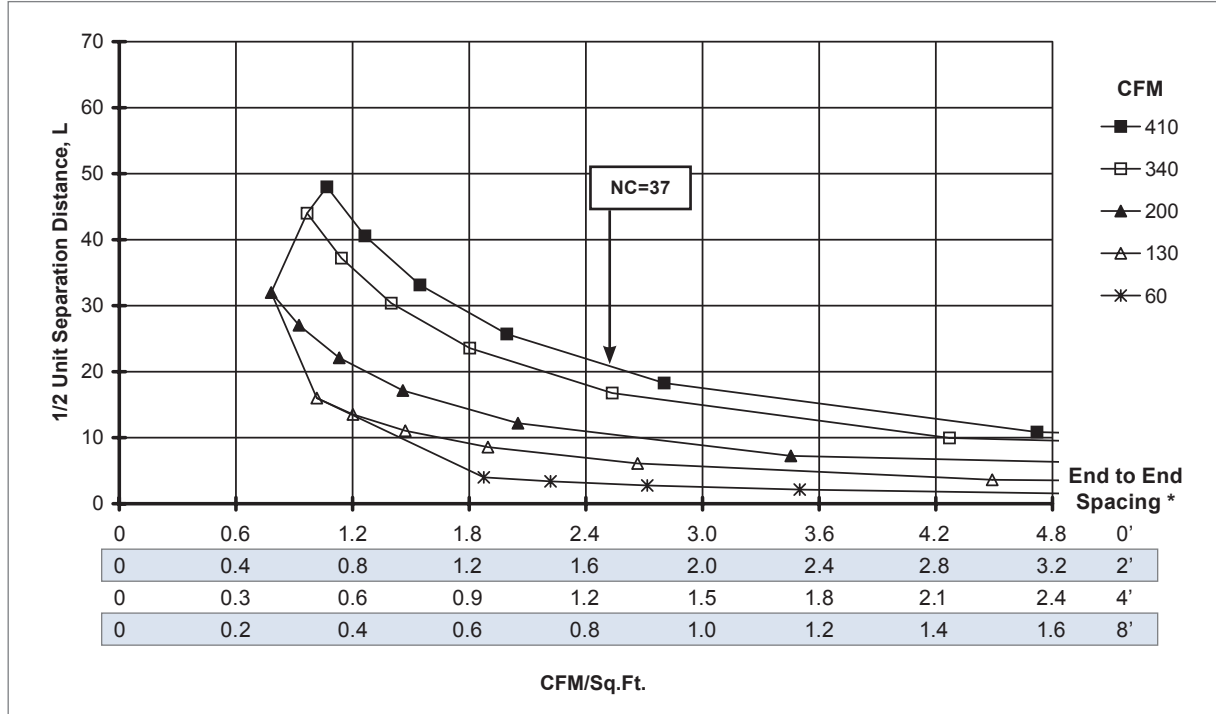
**PTBT Reference Charts: Horizontal Throw, 4 ft. Length**

**DIFFUSER SPACING FOR 80% ADPI: PTBT, 1-SLOT, 8" OVAL INLET, 1-WAY (NO DAMPER)**



PLENUM SLOT DIFFUSERS

**DIFFUSER SPACING FOR 80% ADPI: PTBT, 2-SLOT, 8" OVAL INLET, 2-WAY (NO DAMPER)**



NOTES: Charts are at 20 BTUH/ft<sup>2</sup> loads.

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.

P  
T  
B  
T

**PTBT Performance Data: Horizontal Throw**

## IP/METRIC DATA: PTBT, 1-SLOT (NO DAMPER)

Linear Length	IP Data					NC	Metric Data				Octave Band, dB						
	Air Flow	Pressure		1-Way Throw	CFM		Air Flow	Pressure		1-Way Throw	2	3	4	5	6	7	
		P <sub>s</sub>	P <sub>t</sub>					L/s	P <sub>a</sub>								P <sub>a</sub>
6" Oval Inlet	2'	25	0.011	0.012	1 - 2 - 7	-	12	2.8	3.1	0.2 - 0.6 - 2.1	20	36	21	13	-	-	
		65	0.076	0.083	6 - 9 - 14	26	31	18.9	20.8	1.7 - 2.8 - 4.2	36	48	39	33	26	15	
		85	0.130	0.143	8 - 11 - 16	31	40	32.3	35.5	2.4 - 3.4 - 4.8	40	51	44	38	33	24	
		105	0.198	0.218	10 - 12 - 17	34	50	49.3	54.2	3.0 - 3.7 - 5.3	44	54	48	42	39	32	
		145	0.377	0.415	12 - 14 - 20	40	68	93.9	103.3	3.6 - 4.4 - 6.2	49	58	54	49	48	43	
	4'	30	0.004	0.006	0 - 1 - 4	-	14	1.1	1.5	0.1 - 0.3 - 1.1	16	33	13	-	-	-	
		100	0.048	0.066	5 - 10 - 17	24	47	12.0	16.4	1.4 - 3.0 - 5.2	36	47	36	30	22	-	
		135	0.088	0.120	8 - 14 - 20	30	64	21.9	30.0	2.6 - 4.1 - 6.0	41	51	42	36	31	20	
		170	0.139	0.191	11 - 16 - 22	33	80	34.7	47.5	3.4 - 4.8 - 6.7	45	54	47	41	37	28	
	5'	240	0.278	0.381	15 - 19 - 26	39	113	69.1	94.7	4.6 - 5.7 - 8.0	51	58	53	48	46	40	
		40	0.006	0.009	1 - 1 - 5	-	19	1.4	2.1	0.2 - 0.4 - 1.4	19	34	16	-	-	-	
		120	0.051	0.076	5 - 11 - 19	25	57	12.6	19.0	1.4 - 3.3 - 5.7	37	48	36	30	22	-	
160		0.090	0.136	8 - 14 - 21	30	76	22.4	33.8	2.6 - 4.4 - 6.5	42	51	42	36	30	19		
8" Oval Inlet	2'	200	0.141	0.212	12 - 17 - 24	33	94	35.1	52.9	3.6 - 5.2 - 7.3	45	54	46	41	36	27	
		280	0.276	0.416	16 - 20 - 28	39	132	68.7	103.6	5.0 - 6.1 - 8.6	51	58	53	47	46	39	
		40	0.045	0.046	2 - 5 - 11	16	19	11.2	11.5	0.6 - 1.4 - 3.3	25	40	28	21	-	-	
		80	0.181	0.185	8 - 11 - 15	28	38	45.0	46.1	2.3 - 3.3 - 4.6	36	49	41	35	29	20	
		100	0.282	0.289	9 - 12 - 17	32	47	70.3	72.0	2.9 - 3.6 - 5.2	40	51	46	40	35	28	
	4'	120	0.406	0.416	11 - 13 - 19	35	57	101.2	103.7	3.3 - 4.0 - 5.7	43	54	49	43	40	34	
		160	0.722	0.740	12 - 15 - 21	40	76	179.9	184.3	3.8 - 4.6 - 6.5	48	57	55	49	48	44	
		60	0.015	0.018	2 - 4 - 12	14	28	3.8	4.5	0.5 - 1.1 - 3.6	24	39	25	18	-	-	
		130	0.072	0.084	8 - 13 - 19	27	61	18.0	20.9	2.4 - 4.0 - 5.9	37	49	40	34	27	16	
	5'	165	0.116	0.135	11 - 15 - 22	31	78	29.0	33.7	3.3 - 4.7 - 6.6	41	52	44	38	33	24	
		200	0.171	0.199	13 - 17 - 24	34	94	42.6	49.5	4.1 - 5.2 - 7.3	44	54	48	42	39	31	
		270	0.312	0.362	16 - 20 - 28	39	127	77.7	90.2	4.9 - 6.0 - 8.5	49	58	54	48	47	42	
80		0.018	0.022	2 - 5 - 14	16	38	4.5	5.6	0.6 - 1.4 - 4.4	27	41	27	20	-	-		
10" Oval Inlet	4'	160	0.072	0.089	8 - 14 - 21	28	76	17.9	22.3	2.6 - 4.4 - 6.5	39	49	40	34	28	17	
		200	0.112	0.140	12 - 17 - 24	31	94	27.9	34.8	3.6 - 5.2 - 7.3	42	52	45	39	34	24	
		240	0.161	0.201	14 - 19 - 26	34	113	40.2	50.1	4.4 - 5.7 - 8.0	45	54	48	42	39	31	
		320	0.287	0.358	18 - 21 - 30	39	151	71.5	89.0	5.3 - 6.5 - 9.2	50	58	53	48	47	41	
		70	0.023	0.025	2 - 5 - 14	15	33	5.8	6.2	0.7 - 1.5 - 4.3	25	40	27	20	-	-	
	5'	140	0.093	0.100	9 - 14 - 20	27	66	23.1	24.9	2.8 - 4.3 - 6.1	36	48	40	34	27	17	
		175	0.145	0.156	12 - 16 - 22	31	83	36.1	38.8	3.5 - 4.8 - 6.8	40	51	44	38	33	25	
		210	0.209	0.225	14 - 17 - 25	34	99	51.9	55.9	4.3 - 5.3 - 7.5	43	53	48	42	38	31	
		280	0.371	0.399	16 - 20 - 28	39	132	92.3	99.4	5.0 - 6.1 - 8.6	48	57	53	48	46	41	
	5'	90	0.022	0.025	3 - 6 - 16	17	42	5.6	6.3	0.8 - 1.8 - 4.9	27	41	28	21	-	-	
		170	0.080	0.091	10 - 15 - 22	27	80	19.9	22.5	2.9 - 4.6 - 6.7	37	49	40	34	28	17	
		210	0.122	0.138	13 - 17 - 25	31	99	30.4	34.4	3.8 - 5.3 - 7.5	41	51	44	38	33	25	
250		0.173	0.196	15 - 19 - 27	34	118	43.1	48.8	4.5 - 5.8 - 8.2	44	54	48	42	38	31		
330		0.302	0.341	18 - 22 - 31	39	156	75.1	84.9	5.4 - 6.6 - 9.4	48	57	53	48	46	40		

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 are given for isothermal conditions. NC values are based on octave band 2 - 7 sound power levels minus a room absorption of 10dB, re10<sup>-12</sup> 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.

**PTBT Performance Data: Horizontal Throw**

IP/METRIC DATA: PTBT, 2-SLOT (NO DAMPER)

PLENUM SLOT DIFFUSERS

Linear Length	IP Data					NC	Metric Data					Octave Band, dB						
	Air Flow	Pressure		1-Way Throw	2-Way Throw		Air Flow	Pressure		1-Way Throw	2-Way Throw	2	3	4	5	6	7	
		Ps	Pt					Ps	Pt									
	CFM	"WG	"WG	ft	ft		L/s	Pa	Pa	m	m							
6" Oval Inlet	2'	40	0.008	0.011	1 - 2 - 8	0 - 1 - 4	-	19	1.9	2.6	0.3 - 0.7 - 2.5	0.1 - 0.3 - 1.3	21	36	19	12	-	-
		120	0.069	0.095	8 - 12 - 17	4 - 7 - 9	28	57	17.3	23.7	2.5 - 3.7 - 5.2	1.3 - 2.0 - 2.8	39	50	40	34	27	16
		160	0.123	0.169	11 - 14 - 20	6 - 8 - 11	32	76	30.7	42.1	3.4 - 4.2 - 6.0	1.8 - 2.3 - 3.3	44	53	45	40	35	26
		200	0.193	0.264	13 - 16 - 22	7 - 8 - 12	36	94	48.0	65.8	3.9 - 4.7 - 6.7	2.1 - 2.6 - 3.6	48	56	50	44	41	33
		280	0.378	0.518	15 - 18 - 26	8 - 10 - 14	42	132	94.1	129.0	4.6 - 5.6 - 7.9	2.5 - 3.1 - 4.3	53	60	56	51	51	45
	4'	40	0.003	0.006	0 - 1 - 3	0 - 0 - 2	-	19	0.8	1.5	0.1 - 0.2 - 1.0	0.1 - 0.1 - 0.5	14	30	-	-	-	-
		180	0.066	0.124	7 - 13 - 21	3 - 7 - 11	25	85	16.4	30.8	2.2 - 4.0 - 6.3	1.1 - 2.2 - 3.5	39	49	37	31	23	-
		250	0.127	0.239	12 - 17 - 25	7 - 9 - 13	31	118	31.7	59.5	3.7 - 5.3 - 7.5	2.0 - 2.9 - 4.1	45	53	43	38	32	21
		320	0.208	0.391	16 - 20 - 28	8 - 11 - 15	35	151	51.9	97.5	4.8 - 6.0 - 8.5	2.6 - 3.3 - 4.6	49	56	48	42	39	29
		460	0.431	0.809	19 - 24 - 33	11 - 13 - 18	41	217	107.3	201.4	5.9 - 7.2 - 10.1	3.2 - 3.9 - 5.5	55	60	55	50	49	42
	5'	50	0.004	0.009	0 - 1 - 4	0 - 0 - 2	-	24	1.0	2.1	0.1 - 0.3 - 1.1	0.1 - 0.1 - 0.5	16	31	-	-	-	-
		210	0.072	0.151	7 - 14 - 23	3 - 7 - 12	25	99	18.0	37.6	2.2 - 4.2 - 6.9	1.0 - 2.3 - 3.7	39	49	36	30	22	-
		290	0.138	0.288	13 - 19 - 26	6 - 10 - 14	31	137	34.3	71.8	3.9 - 5.7 - 8.1	2.0 - 3.1 - 4.4	45	53	42	37	31	19
		370	0.224	0.469	16 - 21 - 30	9 - 12 - 16	35	175	55.9	116.8	4.9 - 6.4 - 9.1	2.7 - 3.5 - 5.0	49	56	47	42	38	28
		530	0.461	0.962	21 - 25 - 36	11 - 14 - 20	41	250	114.7	239.7	6.3 - 7.7 - 10.9	3.4 - 4.2 - 5.9	55	60	54	49	48	40
8" Oval Inlet	2'	30	0.004	0.004	1 - 1 - 5	0 - 1 - 2	-	14	1.0	1.1	0.2 - 0.4 - 1.6	0.1 - 0.2 - 0.7	13	31	12	-	-	-
		110	0.052	0.060	8 - 11 - 16	4 - 6 - 9	24	52	12.9	15.0	2.3 - 3.5 - 5.0	1.1 - 1.9 - 2.7	35	47	37	30	22	-
		150	0.096	0.112	10 - 13 - 19	6 - 7 - 10	29	71	24.0	27.8	3.2 - 4.1 - 5.8	1.7 - 2.2 - 3.2	40	50	43	37	31	21
		190	0.154	0.179	12 - 15 - 21	7 - 8 - 12	33	90	38.5	44.7	3.8 - 4.6 - 6.5	2.1 - 2.5 - 3.6	44	53	47	41	37	29
		270	0.312	0.362	15 - 18 - 26	8 - 10 - 14	39	127	77.7	90.2	4.5 - 5.5 - 7.8	2.4 - 3.0 - 4.2	49	58	54	48	47	42
	4'	60	0.005	0.007	1 - 2 - 7	0 - 1 - 3	-	28	1.2	1.8	0.2 - 0.6 - 2.2	0.1 - 0.3 - 1.1	18	33	14	-	-	-
		200	0.055	0.082	9 - 15 - 22	4 - 8 - 12	25	94	13.6	20.5	2.8 - 4.5 - 6.7	1.3 - 2.4 - 3.6	38	48	37	31	23	-
		270	0.100	0.150	13 - 18 - 26	7 - 10 - 14	30	127	24.9	37.4	4.0 - 5.5 - 7.8	2.2 - 3.0 - 4.2	43	52	43	37	32	21
		340	0.158	0.238	17 - 20 - 29	9 - 11 - 16	34	160	39.4	59.3	5.0 - 6.2 - 8.7	2.7 - 3.4 - 4.8	46	55	47	42	38	29
		480	0.316	0.474	20 - 24 - 34	11 - 13 - 19	40	227	78.6	118.1	6.0 - 7.3 - 10.4	3.3 - 4.0 - 5.7	52	59	54	49	48	41
	5'	70	0.005	0.008	1 - 2 - 7	0 - 1 - 3	-	33	1.3	2.1	0.2 - 0.5 - 2.2	0.1 - 0.3 - 1.0	18	33	14	-	-	-
		230	0.055	0.091	9 - 15 - 24	4 - 8 - 13	25	109	13.7	22.7	2.6 - 4.6 - 7.2	1.2 - 2.5 - 3.9	38	48	36	30	22	-
		310	0.100	0.166	14 - 19 - 27	7 - 11 - 15	30	146	24.8	41.3	4.1 - 5.9 - 8.3	2.2 - 3.2 - 4.5	43	52	42	36	31	19
		390	0.158	0.263	17 - 22 - 31	9 - 12 - 17	34	184	39.3	65.4	5.2 - 6.6 - 9.3	2.8 - 3.6 - 5.1	47	54	46	41	37	27
		550	0.314	0.522	21 - 26 - 36	11 - 14 - 20	39	260	78.1	130.0	6.4 - 7.8 - 11.1	3.5 - 4.3 - 6.0	52	59	53	48	46	39
10" Oval Inlet	2'	40	0.008	0.008	1 - 2 - 8	0 - 1 - 4	-	19	1.9	2.0	0.3 - 0.7 - 2.5	0.1 - 0.3 - 1.3	16	33	16	-	-	-
		120	0.068	0.073	8 - 12 - 17	4 - 7 - 9	24	57	17.0	18.3	2.5 - 3.7 - 5.2	1.3 - 2.0 - 2.8	34	47	37	31	23	12
		160	0.121	0.130	11 - 14 - 20	6 - 8 - 11	29	76	30.1	32.5	3.4 - 4.2 - 6.0	1.8 - 2.3 - 3.3	39	50	43	37	31	22
		200	0.189	0.204	13 - 16 - 22	7 - 8 - 12	33	94	47.1	50.7	3.9 - 4.7 - 6.7	2.1 - 2.6 - 3.6	42	53	47	41	37	29
		280	0.371	0.399	15 - 18 - 26	8 - 10 - 14	39	132	92.3	99.4	4.6 - 5.6 - 7.9	2.5 - 3.1 - 4.3	48	57	53	48	46	41
	4'	80	0.007	0.010	1 - 3 - 12	1 - 2 - 6	-	38	1.8	2.4	0.4 - 1.0 - 3.6	0.2 - 0.5 - 1.9	20	36	19	11	-	-
		220	0.056	0.073	11 - 16 - 23	5 - 9 - 13	26	104	13.9	18.2	3.3 - 4.9 - 7.0	1.6 - 2.6 - 3.8	37	48	38	32	24	12
		290	0.097	0.127	14 - 19 - 26	8 - 10 - 14	30	137	24.1	31.7	4.3 - 5.7 - 8.1	2.3 - 3.1 - 4.4	42	51	43	37	32	22
		360	0.149	0.196	17 - 21 - 30	9 - 11 - 16	34	170	37.1	48.8	5.2 - 6.3 - 9.0	2.8 - 3.5 - 4.9	45	54	47	42	38	29
		500	0.287	0.378	20 - 25 - 35	11 - 13 - 19	40	236	71.5	94.1	6.1 - 7.5 - 10.6	3.3 - 4.1 - 5.8	51	58	54	48	47	41
	5'	90	0.007	0.010	1 - 3 - 12	1 - 1 - 6	-	42	1.7	2.4	0.4 - 0.9 - 3.6	0.2 - 0.4 - 1.7	20	35	17	-	-	-
		250	0.051	0.074	10 - 16 - 25	5 - 9 - 13	25	118	12.8	18.5	3.1 - 5.0 - 7.5	1.5 - 2.7 - 4.1	37	48	37	31	23	-
		330	0.090	0.129	14 - 20 - 28	8 - 11 - 15	30	156	22.3	32.2	4.4 - 6.1 - 8.6	2.4 - 3.3 - 4.7	42	51	42	36	31	20
		410	0.138	0.199	18 - 22 - 31	10 - 12 - 17	33	193	34.5	49.6	5.5 - 6.8 - 9.6	2.9 - 3.7 - 5.2	45	54	46	41	37	27
		570	0.267	0.385	21 - 26 - 37	12 - 14 - 20	39	269	66.6	95.9	6.5 - 8.0 - 11.3	3.6 - 4.4 - 6.2	51	58	53	47	46	39

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 are given for isothermal conditions. NC values are based on octave band 2 - 7 sound power levels minus a room absorption of 10dB, re10<sup>-12</sup> 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.

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**PTBT Performance Data: Horizontal Throw**
**IP/METRIC DATA: PTBT, 3-SLOT (NO DAMPER)**

Length	IP Data							Metric Data							Octave Band, dB						
	Air Flow	Pressure		1-Way Throw		2-Way		NC	Air Flow	Pressure		1-Way Throw		2-Way							
		CFM	"WG	"WG	ft	ft	ft			L/s	Pa	Pa	m	m	m						
	2-Slot Side	1-Slot Side	2-Slot Side	1-Slot Side	2-Slot Side	1-Slot Side	2-Slot Side	1-Slot Side													
6" Oval Inlet	2'	50	0.007	0.011	1-3-9	1-2-6	0-1-2	-	24	1.7	2.9	0.4-0.9-2.7	0.2-0.5-1.8	0.1-0.2-0.7	21	35	17	-	-	-	
		170	0.081	0.133	10-13-18	7-9-13	3-6-9	28	80	20.2	33.0	3.0-4.0-5.6	2.0-2.7-3.8	0.8-1.7-2.8	41	50	40	34	28	16	
		230	0.148	0.243	12-15-21	8-10-15	5-7-11	33	109	36.9	60.4	3.8-4.6-6.5	2.6-3.2-4.5	1.5-2.3-3.2	46	54	46	40	36	26	
		290	0.236	0.386	14-17-24	10-12-16	6-8-12	37	137	58.6	96.1	4.2-5.2-7.3	2.9-3.5-5.0	1.9-2.5-3.6	50	57	50	45	43	34	
		410	0.471	0.771	17-20-29	11-14-20	8-10-14	43	193	117.2	192.0	5.0-6.2-8.7	3.4-4.2-6.0	2.5-3.0-4.3	56	61	57	52	52	46	
	4'	70	0.007	0.016	1-2-8	0-1-4	0-0-1	-	33	1.7	3.9	0.3-0.6-2.4	0.1-0.3-1.3	0.1-0.1-0.5	19	34	13	-	-	-	
		280	0.110	0.250	12-17-24	8-11-16	3-6-12	28	132	27.3	62.9	3.5-5.1-7.2	2.3-3.5-4.9	0.8-1.8-3.5	42	51	39	33	26	12	
		385	0.207	0.472	16-20-28	11-13-19	5-9-14	33	182	51.6	117.6	4.9-6.0-8.4	3.3-4.1-5.8	1.5-2.7-4.1	48	54	45	40	35	24	
		490	0.336	0.765	18-22-31	12-15-21	8-11-15	37	231	83.6	190.4	5.5-6.7-9.5	3.8-4.6-6.5	2.3-3.3-4.7	52	57	50	45	42	32	
		700	0.685	1.561	22-26-37	15-18-26	11-13-18	43	330	170.6	388.6	6.6-8.0-11.4	4.5-5.5-7.8	3.2-4.0-5.6	58	62	56	52	52	44	
	5'	80	0.008	0.019	1-2-7	0-1-4	0-0-1	-	38	1.9	4.7	0.2-0.6-2.2	0.1-0.3-1.2	0.0-0.1-0.4	19	33	12	-	-	-	
		320	0.120	0.303	12-18-25	7-12-17	2-6-12	27	151	29.9	75.5	3.6-5.4-7.7	2.2-3.7-5.3	0.8-1.7-3.8	42	50	38	32	25	-	
440		0.227	0.573	16-21-30	11-14-20	5-9-15	32	208	56.6	142.8	5.0-6.4-9.0	3.4-4.4-6.2	1.4-2.8-4.4	48	54	44	39	34	22		
560		0.368	0.929	19-24-33	13-16-23	8-12-16	36	264	91.7	231.2	5.9-7.2-10.2	4.0-4.9-7.0	2.3-3.5-5.0	52	57	49	44	41	30		
800		0.752	1.895	23-28-40	16-19-27	11-14-20	42	378	187.2	471.9	7.0-8.6-12.2	4.8-5.9-8.3	3.4-4.2-6.0	58	61	55	51	51	42		
8" Oval Inlet	2'	55	0.006	0.008	2-3-10	1-2-7	0-1-3	-	26	1.6	2.1	0.5-1.0-2.9	0.3-0.6-2.0	0.1-0.2-0.8	19	35	17	-	-	-	
		175	0.063	0.085	10-13-19	7-9-13	3-6-9	27	83	15.8	21.1	3.1-4.0-5.7	2.1-2.8-3.9	0.9-1.7-2.8	38	49	39	33	26	14	
		235	0.114	0.153	13-15-22	9-10-15	5-8-11	32	111	28.5	38.0	3.8-4.7-6.6	2.6-3.2-4.5	1.6-2.3-3.2	43	53	45	39	34	25	
		295	0.180	0.240	14-17-24	10-12-17	6-8-12	36	139	44.9	59.8	4.3-5.2-7.4	2.9-3.6-5.1	2.0-2.6-3.6	47	55	49	44	41	33	
		415	0.357	0.476	17-20-29	11-14-20	8-10-14	41	196	88.9	118.4	5.1-6.2-8.8	3.5-4.2-6.0	2.5-3.0-4.3	53	59	56	51	50	44	
	4'	90	0.007	0.012	1-3-11	1-2-7	0-1-2	-	42	1.7	3.1	0.4-1.0-3.4	0.2-0.5-2.2	0.1-0.1-0.6	20	35	16	-	-	-	
		300	0.076	0.138	12-17-24	8-12-17	3-7-12	27	142	19.0	34.4	3.8-5.3-7.4	2.6-3.6-5.1	0.7-1.6-3.7	40	50	39	33	26	12	
		405	0.139	0.252	16-20-28	11-14-19	6-9-14	32	191	34.5	62.7	5.0-6.1-8.7	3.4-4.2-5.9	1.3-2.7-4.2	45	53	44	39	34	23	
		510	0.220	0.399	18-23-32	13-15-22	8-11-16	36	241	54.8	99.4	5.6-6.9-9.7	3.8-4.7-6.6	2.1-3.4-4.8	49	56	49	43	40	31	
		720	0.438	0.796	22-27-38	15-18-26	11-13-19	42	340	109.2	198.2	6.7-8.2-11.5	4.6-5.6-7.9	3.2-4.0-5.7	55	60	55	50	50	43	
	5'	100	0.007	0.014	1-3-11	1-2-6	0-1-2	-	47	1.7	3.4	0.4-0.9-3.4	0.2-0.5-1.9	0.1-0.1-0.5	20	34	14	-	-	-	
		340	0.078	0.158	13-18-26	8-13-18	3-6-13	26	160	19.4	39.3	3.8-5.6-7.9	2.5-3.8-5.4	0.7-1.5-3.9	40	49	38	32	24	-	
		460	0.143	0.289	17-21-30	12-15-21	5-10-15	31	217	35.6	71.9	5.2-6.5-9.2	3.5-4.5-6.3	1.2-2.7-4.5	45	53	43	38	33	21	
		580	0.227	0.459	20-24-34	13-16-23	8-12-17	35	274	56.6	114.3	6.0-7.3-10.4	4.1-5.0-7.1	1.9-3.4-5.1	49	56	48	42	39	29	
		820	0.454	0.918	23-29-40	16-20-28	11-14-20	41	387	113.1	228.5	7.1-8.7-12.3	4.9-6.0-8.4	3.2-4.3-6.0	55	60	54	49	49	41	
	10" Oval Inlet	2'	60	0.007	0.008	2-4-11	1-2-7	0-1-3	-	28	1.7	2.0	0.6-1.2-3.2	0.3-0.7-2.2	0.1-0.2-0.9	18	35	18	-	-	-
			180	0.062	0.073	11-13-19	7-9-13	3-6-9	26	85	15.4	18.3	3.2-4.1-5.8	2.2-2.8-3.9	0.9-1.8-2.8	37	48	39	32	25	14
			240	0.110	0.131	13-15-22	9-11-15	5-8-11	31	113	27.3	32.5	3.8-4.7-6.7	2.6-3.2-4.6	1.6-2.3-3.3	41	52	44	38	33	24
300			0.171	0.204	14-17-24	10-12-17	7-9-12	35	142	42.7	50.8	4.3-5.3-7.4	2.9-3.6-5.1	2.0-2.6-3.7	45	54	48	43	39	32	
420			0.336	0.400	17-20-29	11-14-20	8-10-14	40	198	83.6	99.5	5.1-6.2-8.8	3.5-4.3-6.0	2.5-3.1-4.3	51	58	55	49	49	43	
4'		100	0.006	0.010	2-4-12	1-2-8	0-1-3	-	47	1.6	2.5	0.5-1.2-3.8	0.3-0.7-2.6	0.1-0.2-0.7	20	35	17	-	-	-	
		310	0.062	0.097	13-18-25	9-12-17	3-7-12	26	146	15.5	24.1	3.9-5.4-7.6	2.6-3.7-5.2	0.8-1.7-3.7	39	49	38	32	25	12	
		415	0.111	0.174	17-20-29	11-14-20	6-10-14	31	196	27.7	43.3	5.1-6.2-8.8	3.5-4.2-6.0	1.4-2.7-4.3	44	52	44	38	33	22	
		520	0.175	0.273	19-23-32	13-16-22	8-11-16	35	245	43.5	67.9	5.7-6.9-9.8	3.9-4.7-6.7	2.1-3.4-4.8	47	55	48	43	39	30	
		730	0.344	0.537	22-27-38	15-18-26	11-13-19	41	345	85.7	133.8	6.7-8.2-11.6	4.6-5.6-7.9	3.2-4.0-5.7	53	59	54	49	49	42	
5'		110	0.006	0.010	2-3-12	1-2-8	0-1-3	-	52	1.5	2.6	0.5-1.1-3.7	0.3-0.6-2.3	0.1-0.2-0.6	19	34	15	-	-	-	
		350	0.061	0.105	13-19-26	9-13-18	3-7-13	25	165	15.1	26.2	4.0-5.7-8.0	2.6-3.9-5.5	0.7-1.6-4.0	39	48	37	31	23	-	
		470	0.109	0.189	17-22-31	12-15-21	5-10-15	30	222	27.2	47.2	5.3-6.6-9.3	3.6-4.5-6.4	1.3-2.8-4.6	43	52	43	37	31	20	
		590	0.172	0.299	20-24-34	14-17-23	8-12-17	34	278	42.9	74.4	6.0-7.4-10.4	4.1-5.1-7.1	2.0-3.5-5.1	47	55	47	41	38	28	
		830	0.341	0.591	24-29-41	16-20-28	11-14-20	40	392	84.9	147.1	7.2-8.8-12.4	4.9-6.0-8.5	3.3-4.3-6.1	53	59	53	48	47	40	

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 are given for isothermal conditions. NC values are based on octave band 2-7 sound power levels minus a room absorption of 10dB,  $re10^{-12}$  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.

**PTBT Performance Data: Horizontal Throw**

IP/METRIC DATA: PTBT, 4-SLOT (NO DAMPER)

PLENUM SLOT DIFFUSERS

	Linear Length	IP Data					NC	Metric Data					Octave Band, dB						
		Air Flow	Pressure		1-Way Throw	2-Way Throw		Air Flow	Pressure		1-Way Throw	2-Way Throw	2	3	4	5	6	7	
			Ps	Pt					Ps	Pt									L/s
		CFM	"WG	"WG	ft	ft		L/s	Pa	Pa	m	m							
6" Oval Inlet	2'	60	0.007	0.014	2 - 4 - 10	0 - 1 - 4	-	28	1.8	3.4	0.5 - 1.1 - 2.9	0.2 - 0.3 - 1.4	21	35	16	-	-	-	
		180	0.066	0.124	10 - 12 - 17	4 - 8 - 11	25	85	16.4	30.8	2.9 - 3.7 - 5.2	1.4 - 2.3 - 3.5	39	49	37	31	23	-	
		240	0.117	0.220	11 - 14 - 20	7 - 9 - 13	30	113	29.2	54.8	3.5 - 4.2 - 6.0	2.1 - 2.8 - 4.0	44	52	42	37	31	19	
		300	0.183	0.344	13 - 16 - 22	8 - 10 - 15	34	142	45.6	85.7	3.9 - 4.7 - 6.7	2.6 - 3.2 - 4.5	48	55	47	41	37	27	
		420	0.359	0.674	15 - 18 - 26	10 - 12 - 17	40	198	89.4	167.9	4.6 - 5.6 - 7.9	3.1 - 3.7 - 5.3	53	59	53	48	47	39	
	4'	80	0.007	0.019	1 - 2 - 9	0 - 1 - 3	-	38	1.8	4.6	0.3 - 0.7 - 2.7	0.1 - 0.2 - 0.9	19	33	11	-	-	-	
		290	0.094	0.245	11 - 15 - 22	4 - 9 - 14	24	137	23.5	60.9	3.4 - 4.7 - 6.6	1.2 - 2.6 - 4.4	40	49	35	29	21	-	
		395	0.175	0.454	15 - 18 - 25	8 - 12 - 17	30	186	43.5	113.0	4.4 - 5.4 - 7.7	2.3 - 3.6 - 5.1	45	52	41	36	29	16	
		500	0.280	0.727	16 - 20 - 28	10 - 13 - 19	34	236	69.8	181.0	5.0 - 6.1 - 8.7	3.0 - 4.1 - 5.8	49	55	46	40	36	24	
		710	0.565	1.466	20 - 24 - 34	13 - 16 - 23	39	335	140.7	365.0	6.0 - 7.3 - 10.3	4.0 - 4.9 - 6.9	55	59	52	47	46	36	
8" Oval Inlet	2'	60	0.005	0.007	2 - 4 - 10	0 - 1 - 4	-	28	1.2	1.8	0.5 - 1.1 - 2.9	0.2 - 0.3 - 1.4	18	33	14	-	-	-	
		180	0.044	0.067	10 - 12 - 17	4 - 8 - 11	24	85	11.0	16.6	2.9 - 3.7 - 5.2	1.4 - 2.3 - 3.5	36	47	35	29	20	-	
		240	0.079	0.119	11 - 14 - 20	7 - 9 - 13	28	113	19.6	29.5	3.5 - 4.2 - 6.0	2.1 - 2.8 - 4.0	41	50	41	35	28	17	
		300	0.123	0.185	13 - 16 - 22	8 - 10 - 15	32	142	30.7	46.1	3.9 - 4.7 - 6.7	2.6 - 3.2 - 4.5	44	53	45	39	35	25	
		420	0.242	0.363	15 - 18 - 26	10 - 12 - 17	38	198	60.2	90.4	4.6 - 5.6 - 7.9	3.1 - 3.7 - 5.3	50	57	51	46	44	36	
	4'	115	0.008	0.018	2 - 5 - 13	1 - 1 - 6	-	54	2.1	4.4	0.6 - 1.4 - 4.0	0.2 - 0.4 - 1.8	22	36	16	-	-	-	
		325	0.067	0.140	12 - 16 - 23	5 - 10 - 15	25	153	16.7	34.9	3.8 - 4.9 - 7.0	1.6 - 3.0 - 4.7	39	48	36	30	21	-	
		430	0.118	0.245	15 - 19 - 26	9 - 12 - 18	29	203	29.3	61.0	4.6 - 5.7 - 8.0	2.6 - 3.8 - 5.3	43	52	41	35	29	16	
		535	0.182	0.379	17 - 21 - 29	11 - 14 - 20	33	252	45.3	94.5	5.2 - 6.3 - 8.9	3.3 - 4.2 - 6.0	47	54	45	40	35	24	
		745	0.353	0.736	20 - 25 - 35	13 - 16 - 23	38	352	87.9	183.2	6.1 - 7.5 - 10.6	4.1 - 5.0 - 7.0	53	58	51	46	44	36	
	5'	125	0.008	0.019	2 - 4 - 13	1 - 1 - 5	-	59	2.0	4.7	0.5 - 1.2 - 3.9	0.2 - 0.4 - 1.5	21	35	14	-	-	-	
		365	0.070	0.162	12 - 17 - 24	5 - 10 - 16	24	172	17.4	40.3	3.8 - 5.2 - 7.4	1.4 - 3.0 - 4.9	39	48	34	28	20	-	
		485	0.123	0.286	16 - 20 - 28	8 - 13 - 19	28	229	30.7	71.1	4.9 - 6.0 - 8.5	2.5 - 4.0 - 5.7	43	51	40	34	28	14	
		605	0.192	0.444	18 - 22 - 31	11 - 15 - 21	32	286	47.8	110.6	5.5 - 6.7 - 9.5	3.3 - 4.5 - 6.3	47	54	44	39	34	22	
		845	0.374	0.867	21 - 26 - 37	14 - 17 - 25	38	399	93.2	215.8	6.5 - 8.0 - 11.2	4.3 - 5.3 - 7.5	53	58	50	45	43	33	
10" Oval Inlet	2'	120	0.017	0.022	6 - 10 - 14	2 - 4 - 9	15	57	4.1	5.4	1.9 - 2.9 - 4.2	0.6 - 1.4 - 2.8	27	41	26	20	-	-	
		240	0.066	0.087	11 - 14 - 20	7 - 9 - 13	27	113	16.5	21.7	3.5 - 4.2 - 6.0	2.1 - 2.8 - 4.0	38	49	40	34	27	15	
		300	0.103	0.136	13 - 16 - 22	8 - 10 - 15	31	142	25.8	33.9	3.9 - 4.7 - 6.7	2.6 - 3.2 - 4.5	42	52	44	38	33	23	
		360	0.149	0.196	14 - 17 - 24	9 - 11 - 16	34	170	37.1	48.8	4.2 - 5.2 - 7.3	2.8 - 3.5 - 4.9	45	54	47	42	38	29	
		480	0.265	0.348	16 - 20 - 28	11 - 13 - 19	39	227	65.9	86.7	4.9 - 6.0 - 8.5	3.3 - 4.0 - 5.7	50	58	53	47	46	39	
	4'	160	0.012	0.021	4 - 9 - 16	1 - 3 - 10	11	76	2.9	5.3	1.2 - 2.7 - 4.9	0.4 - 0.9 - 2.9	25	38	21	14	-	-	
		370	0.063	0.113	14 - 17 - 24	7 - 11 - 16	25	175	15.7	28.1	4.3 - 5.3 - 7.4	2.0 - 3.4 - 5.0	39	49	37	31	23	-	
		475	0.104	0.186	16 - 20 - 28	10 - 13 - 18	30	224	25.9	46.3	4.9 - 6.0 - 8.4	2.9 - 4.0 - 5.6	43	52	42	36	30	18	
		580	0.155	0.277	18 - 22 - 31	12 - 14 - 20	33	274	38.6	69.0	5.4 - 6.6 - 9.3	3.5 - 4.4 - 6.2	46	54	46	40	36	25	
		790	0.288	0.514	21 - 25 - 36	14 - 17 - 24	38	373	71.7	128.0	6.3 - 7.7 - 10.9	4.2 - 5.1 - 7.3	51	58	51	46	44	36	
	5'	200	0.015	0.029	4 - 10 - 18	1 - 3 - 11	12	94	3.7	7.3	1.4 - 3.0 - 5.5	0.4 - 1.0 - 3.3	26	39	22	15	-	-	
		440	0.071	0.141	15 - 19 - 27	7 - 12 - 18	25	208	17.7	35.2	4.5 - 5.7 - 8.1	2.1 - 3.6 - 5.4	39	49	37	31	23	-	
		560	0.115	0.229	17 - 21 - 30	10 - 14 - 20	30	264	28.7	57.0	5.3 - 6.5 - 9.2	3.0 - 4.3 - 6.1	44	52	41	36	30	17	
		680	0.170	0.337	19 - 23 - 33	12 - 16 - 22	33	321	42.3	84.0	5.8 - 7.1 - 10.1	3.7 - 4.8 - 6.7	47	54	45	40	35	24	
		920	0.311	0.618	22 - 27 - 39	15 - 18 - 26	38	434	77.3	153.8	6.8 - 8.3 - 11.7	4.5 - 5.5 - 7.8	52	58	51	46	44	35	

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 are given for isothermal conditions. NC values are based on octave band 2 - 7 sound power levels minus a room absorption of 10dB, re10<sup>-12</sup> 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.

PTBT

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**PTBT Suggested Specification & Configuration**

- 1. SERIES: (XXXX)**  
PTBT - Plenum Slot Diffuser with Fixed Blades
- 2. INSULATION: (X)**  
N - No Insulation  
Y - Insulation
- 3. SLOT LENGTH: (XX)**  
24", 36", 48", or 60"
- 4. NUMBER OF SLOTS: (X)**  
1, 2, 3, or 4
- 5. PLENUM INLET SIZE: (XX)**  
6", 8", or 10" Oval
- 6. SLOT CONFIGURATION: (XXX)**  
11R - 1 Slot, 1-Way, Right Inlet  
21R - 2 Slot, 1-Way, Right Inlet  
31R - 3 Slot, 1-Way, Right Inlet  
41R - 4 Slot, 1-Way, Right Inlet  
11L - 1 Slot, 1-Way, Left Inlet  
21L - 2 Slot, 1-Way, Left Inlet  
31L - 3 Slot, 1-Way, Left Inlet  
41L - 4 Slot, 1-Way, Left Inlet  
22 - 2 Slot, 2-Way  
32R - 3 Slot, 2-Way, Right Inlet  
32L - 3 Slot, 2-Way, Left Inlet  
42 - 4 Slot, 2-Way
- 7. MOUNTING TYPE: (XX)**  
00 - No Mounting  
PF - Plaster Frame  
CN - Center Notch
- 8. FINISH: (XX)**  
44 - British White

**PTBT**

The plenum slot supply diffuser shall be Krueger model PTBT consisting of extruded aluminum pattern deflectors and shall have 3/4" slot opening with 1, 2, 3 or 4 slots discharging in the direction specified. The PTBT shall have a fixed 1-way or 2-way pattern controller to discharge air horizontally along the ceiling. The PTBT shall have a removable plenum constructed of 24 gage galvanized steel with optional 1/4" thick, 2 lb. density internal insulation. The removable plenum will allow for field adjustment of inlet direction. The entire assembly shall not exceed 10" in height.

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

**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 paint finish shall be #44 British White and be an anodic acrylic paint, baked at 315°F for 30 minutes. The paint thickness shall be 0.8 – 1.0 mils, gloss at 60° per ASTM D523-89 of 50 – 85%, pencil hardness per ASTM D3363-92A of HB – H, crosshatch adhesion per ASTM D3359-83 of 4B – 5B, impact per ASTM D2794-93 of direct impact >100 in/lb and reverse impact >80 in/lb, salt spray per ASTM B117-9048 of 96 hours, humidity per ASTM D2247-92 of >500 hours and water soak per ASTM D870-92 of 250 hours.