

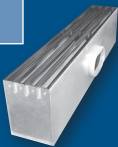


PTBS

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"

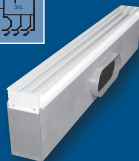


PTBT

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, PTBSSF, & PFTBS (FR)

These plenum slot supply diffusers feature a fixed curved blade.

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

Slots: 1 or 2

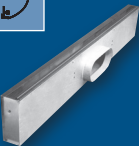
Slot Widths: ¾", 1", 1½"

**¾" Slot width only available on model PFTBS.



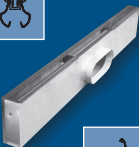
PTBSC, PTBSRC

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



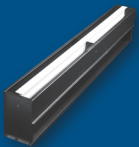
PTBSCDB, PTBSRCDB

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, PTBSSF & 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



PTBR

Introduction: PTBR, PFTBR

The PTBR (or fire rated, PFTBR) series plenum slot return diffuser is designed for non-ducted return air systems. The plenum is an integral part of the diffuser and has a slotted opening above the ceiling. The PTBR face is designed to match the PTBS, PTBA, and PTBSS supply units.

MODELS

- PTBR - Plenum Slot Return
- PFTBR - Fire Rated, Plenum Slot Return

FEATURES

- Slots: 1, 2, 3, or 4.
- Slot Widths: 3/4", 1", and 1 1/2".
- Lengths: 24", 36", 48", and 60".
- Double metal thickness at slot face for rigidity and straightness.

ACCESSORIES

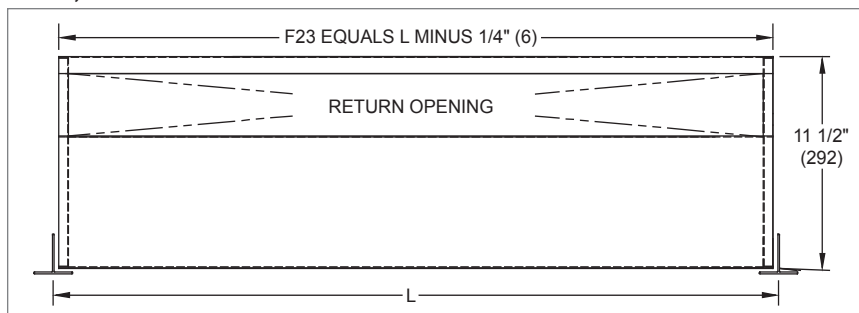
- Factory Installed T-Bars
- Plaster Frame

FINISHES

- Standard finish is black face with optional white tees.
- Optional finishes available.

PTBR Dimensional Information

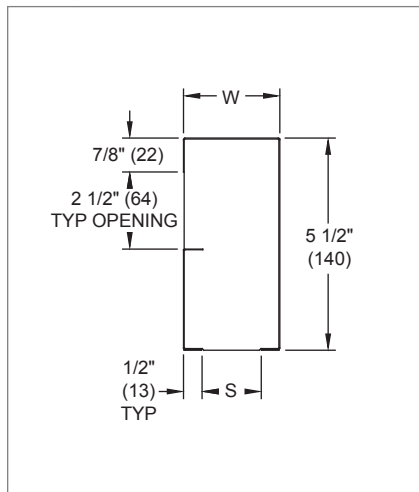
PTBR, RETURN OPENING SIDE VIEW



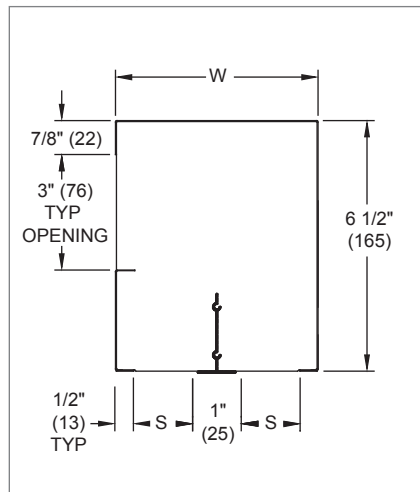
PTBR, AVAILABLE SIZES

| S | W | | | |
|----------------|----------------|----------------|-----------------|--------------|
| | 1 Slot | 2 Slot | 3 Slot | 4 Slot |
| 3/4" (19) | 1 3/4" (44) | 3 1/2" (89) | 5 1/4" (133) | 7" (178) |
| 1" (25) | 2" (51) | 4" (102) | 6" (152) | 8" (203) |
| 1 1/2" (38) | 2 1/2" (64) | 5" (127) | 7 1/2" (191) | 10" (254) |

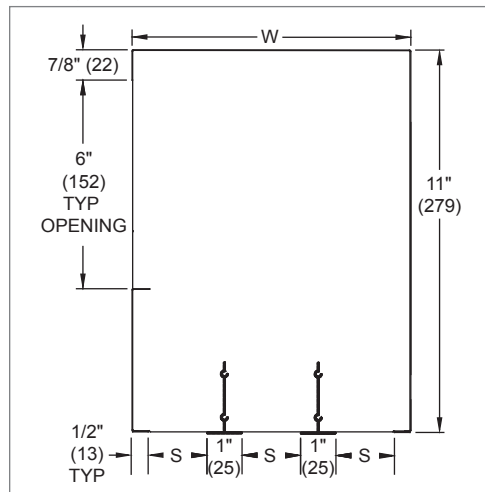
PTBR, 1-SLOT CROSS SECTION



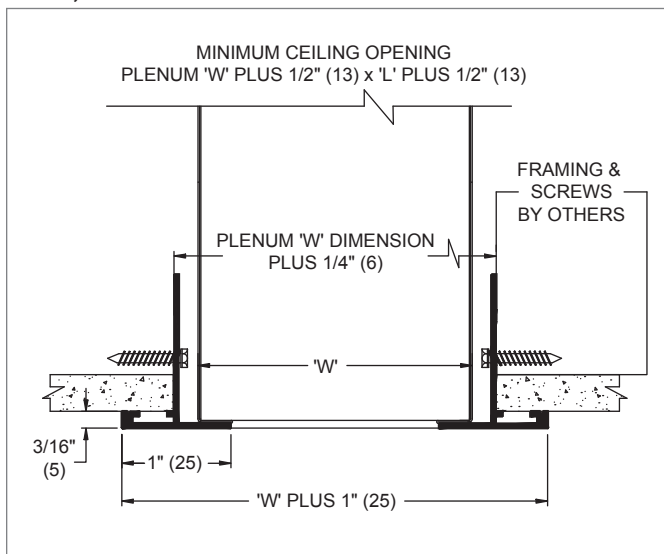
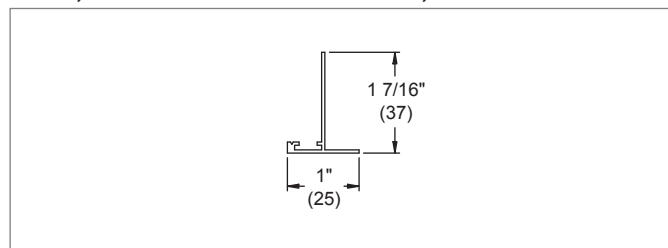
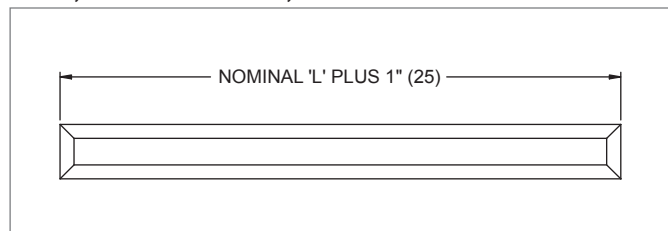
PTBR, 2-SLOT CROSS SECTION



PTBR, 3-SLOT CROSS SECTION

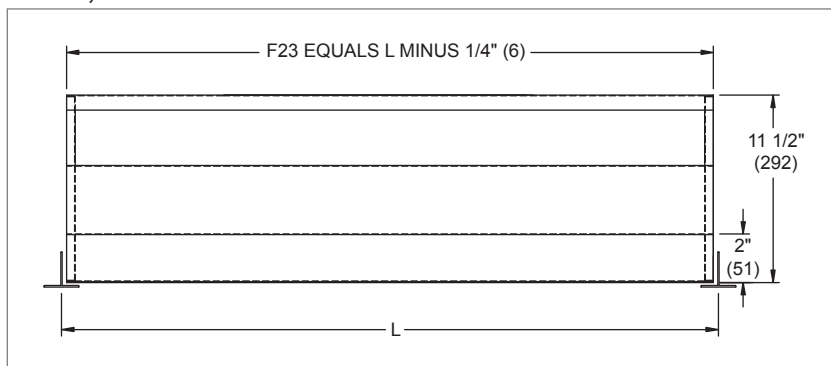
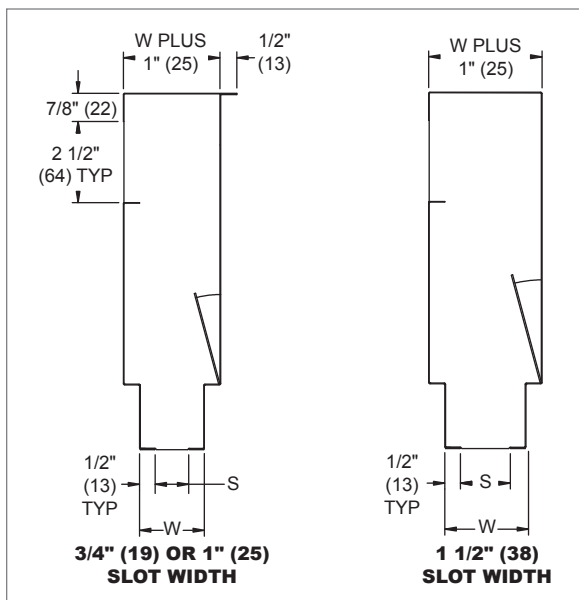
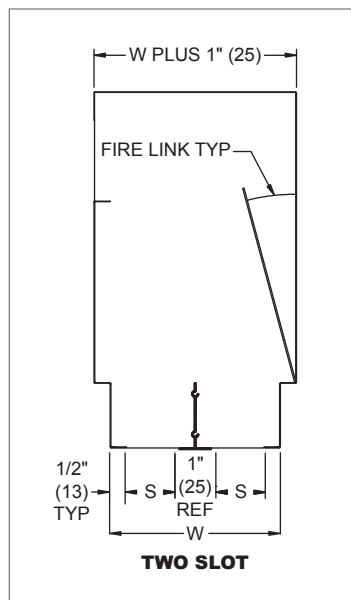


NOTE: Dimensions in parentheses are mm.

PTBR Accessories for Frame 23 Lay-In T-Bar
PTBR, FRAME ASSEMBLY

PTBR, PLASTER FRAME ADAPTER, CROSS SECTION

PTBR, PLASTER FRAME, FACE VIEW

PFTBR Dimensional Information


The PFTBR offers the safety of fire rated performance with the proven PTBR series diffuser. It is intended for use with Lay-in T-Bar application involving fire rated ceiling designs. It combines this flexibility with all of the features of the standard PTBR and is available exclusively in steel.

PFTBR comes standard as a UL 263 classified assembly which incorporates a 3-hour rated fire damper and a 1/2" thick ceramic fiber blanket.

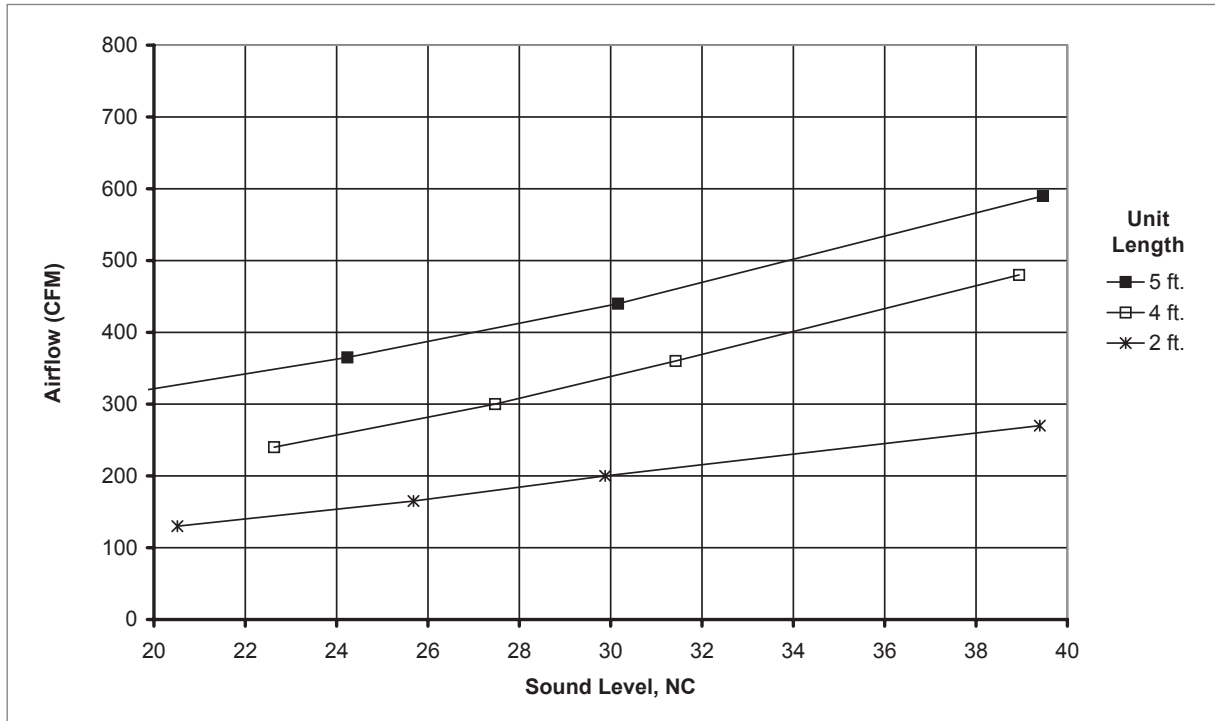
PFTBR, INLET VIEW

PFTBR 1-SLOT, CROSS SECTION

PFTBR 2-SLOT, CROSS SECTION

PFTBR, AVAILABLE SIZES

| S | W | |
|----------------|----------------|----------------|
| | 1 Slot | 2 Slot |
| 3/4" (19) | 1 3/4" (44) | 3 1/2" (89) |
| 1" (25) | 2" (51) | 4" (102) |
| 1 1/2" (38) | 2 1/2" (64) | 5" (127) * |

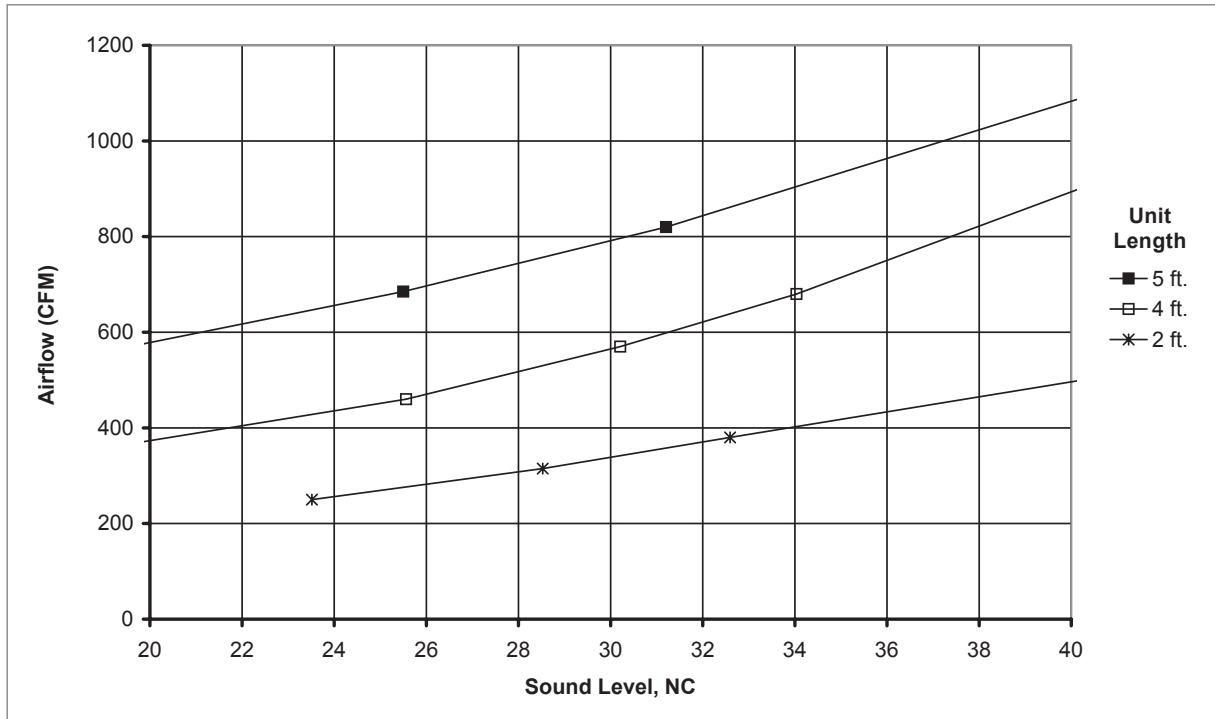
NOTES: Dimensions in parentheses are mm. *2-Slot, 1 1/2" Slot Width is not available with UL rating.

PTBR Reference Charts: Return

AIRFLOW VS. NC LEVEL: PTBR/PFTBR, 1" SLOT WIDTH, 1-SLOT (NO DAMPER)



AIRFLOW VS. NC LEVEL: PTBR/PFTBR, 1" SLOT WIDTH, 2-SLOT (NO DAMPER)



PLENUM SLOT DIFFUSERS

P
T
B
R

PTBR Performance Data: Return
IP/METRIC DATA: PTBR, 1-SLOT, RETURN (NO DAMPER)

| | Linear Length | IP Data | | NC | Metric Data | | Octave Band, dB | | | | | |
|-------------------|---------------|----------|--------|----|-------------|--------|-----------------|----|----|----|----|----|
| | | Air Flow | Ps | | Air Flow | Ps | 2 | 3 | 4 | 5 | 6 | 7 |
| | | CFM | "WG | | L/s | Pa | | | | | | |
| | | | | | | | | | | | | |
| 3/4" Slot Width | 2' | 40 | -0.018 | - | 19 | -4.4 | 15 | 21 | - | - | - | - |
| | | 90 | -0.089 | 15 | 42 | -22.1 | 29 | 37 | 32 | 24 | 14 | - |
| | | 115 | -0.145 | 23 | 54 | -36.0 | 33 | 42 | 39 | 33 | 23 | 15 |
| | | 140 | -0.214 | 30 | 66 | -53.4 | 36 | 46 | 45 | 40 | 31 | 24 |
| | | 190 | -0.395 | 40 | 90 | -98.3 | 42 | 52 | 55 | 50 | 43 | 37 |
| | 4' | 80 | -0.018 | - | 38 | -4.4 | 18 | 24 | - | - | - | - |
| | | 170 | -0.079 | 17 | 80 | -19.7 | 31 | 39 | 33 | 25 | 15 | - |
| | | 215 | -0.126 | 24 | 101 | -31.5 | 35 | 44 | 40 | 33 | 24 | 15 |
| | | 260 | -0.185 | 31 | 123 | -46.0 | 38 | 48 | 46 | 40 | 31 | 23 |
| | | 350 | -0.335 | 41 | 165 | -83.4 | 43 | 53 | 55 | 50 | 43 | 36 |
| | 5' | 100 | -0.018 | - | 47 | -4.4 | 19 | 25 | 11 | - | - | - |
| | | 200 | -0.070 | 16 | 94 | -17.4 | 31 | 39 | 32 | 24 | 13 | - |
| | | 250 | -0.109 | 23 | 118 | -27.2 | 35 | 43 | 39 | 32 | 22 | 13 |
| | | 300 | -0.157 | 29 | 142 | -39.2 | 38 | 47 | 45 | 38 | 29 | 21 |
| | | 400 | -0.280 | 39 | 189 | -69.7 | 43 | 53 | 53 | 48 | 40 | 33 |
| 1" Slot Width | 2' | 60 | -0.022 | - | 28 | -5.4 | 38 | 22 | - | - | - | - |
| | | 130 | -0.102 | 21 | 61 | -25.4 | 51 | 35 | 33 | - | - | - |
| | | 165 | -0.165 | 26 | 78 | -41.0 | 55 | 39 | 40 | 12 | - | - |
| | | 200 | -0.242 | 30 | 94 | -60.2 | 58 | 42 | 45 | 18 | - | - |
| | | 270 | -0.441 | 39 | 127 | -109.8 | 63 | 46 | 54 | 26 | 17 | - |
| | 4' | 120 | -0.022 | - | 57 | -5.4 | 41 | 25 | 13 | - | - | - |
| | | 240 | -0.087 | 23 | 113 | -21.7 | 52 | 36 | 33 | - | - | - |
| | | 300 | -0.136 | 27 | 142 | -33.9 | 56 | 40 | 40 | 13 | - | - |
| | | 360 | -0.196 | 31 | 170 | -48.8 | 59 | 43 | 45 | 18 | - | - |
| | | 480 | -0.348 | 39 | 227 | -86.7 | 64 | 48 | 54 | 26 | 16 | - |
| | 5' | 140 | -0.019 | - | 66 | -4.7 | 40 | 25 | 12 | - | - | - |
| | | 290 | -0.081 | 17 | 137 | -20.3 | 53 | 37 | 33 | - | - | - |
| | | 365 | -0.129 | 24 | 172 | -32.1 | 57 | 41 | 40 | 13 | - | - |
| | | 440 | -0.187 | 30 | 208 | -46.6 | 60 | 44 | 45 | 18 | - | - |
| | | 590 | -0.337 | 39 | 278 | -83.9 | 65 | 48 | 54 | 27 | 17 | - |
| 1 1/2" Slot Width | 2' | 90 | -0.022 | - | 42 | -5.5 | 29 | 37 | 32 | 24 | 14 | - |
| | | 200 | -0.108 | 18 | 94 | -27.0 | 43 | 53 | 56 | 52 | 45 | 39 |
| | | 255 | -0.176 | 26 | 120 | -43.9 | 47 | 58 | 64 | 60 | 55 | 50 |
| | | 310 | -0.260 | 32 | 146 | -64.8 | 50 | 61 | 70 | 67 | 62 | 58 |
| | | 420 | -0.478 | 41 | 198 | -119.0 | 56 | 67 | 79 | 78 | 74 | 71 |
| | 4' | 180 | -0.022 | - | 85 | -5.5 | 32 | 40 | 35 | 27 | 17 | - |
| | | 360 | -0.088 | 18 | 170 | -21.9 | 44 | 54 | 56 | 51 | 44 | 38 |
| | | 450 | -0.137 | 25 | 212 | -34.1 | 48 | 58 | 63 | 59 | 53 | 47 |
| | | 540 | -0.197 | 31 | 255 | -49.2 | 51 | 62 | 69 | 65 | 60 | 55 |
| | | 720 | -0.351 | 40 | 340 | -87.4 | 56 | 67 | 77 | 75 | 71 | 68 |
| | 5' | 210 | -0.019 | - | 99 | -4.8 | 32 | 40 | 34 | 26 | 15 | - |
| | | 430 | -0.080 | 17 | 203 | -20.0 | 44 | 54 | 56 | 51 | 43 | 37 |
| | | 540 | -0.126 | 25 | 255 | -31.5 | 48 | 58 | 63 | 59 | 52 | 46 |
| | | 650 | -0.183 | 31 | 307 | -45.6 | 51 | 62 | 68 | 65 | 59 | 54 |
| | | 870 | -0.328 | 40 | 411 | -81.7 | 56 | 68 | 77 | 75 | 71 | 67 |

NOTES: 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, 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.

PTBR Performance Data: Return

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

PLENUM SLOT DIFFUSERS

| | Linear Length | IP Data | | | Metric Data | | Octave Band, dB | | | | | |
|-------------------|---------------|----------|--------|----|-------------|-------|-----------------|----|----|----|----|----|
| | | Air Flow | Ps | NC | Air Flow | Ps | 2 | 3 | 4 | 5 | 6 | 7 |
| | | CFM | "WG | | L/s | Pa | | | | | | |
| 3/4" Slot Width | 2' | 90 | -0.022 | - | 42 | -5.5 | 20 | 27 | 13 | - | - | - |
| | | 170 | -0.079 | 17 | 80 | -19.7 | 31 | 39 | 33 | 25 | 15 | - |
| | | 210 | -0.121 | 24 | 99 | -30.0 | 34 | 43 | 39 | 33 | 23 | 14 |
| | | 250 | -0.171 | 30 | 118 | -42.5 | 37 | 47 | 45 | 39 | 30 | 22 |
| | | 330 | -0.298 | 39 | 156 | -74.1 | 42 | 52 | 53 | 48 | 41 | 34 |
| | 4' | 180 | -0.022 | - | 85 | -5.5 | 23 | 30 | 16 | - | - | - |
| | | 330 | -0.074 | 19 | 156 | -18.5 | 33 | 42 | 35 | 27 | 16 | - |
| | | 405 | -0.112 | 26 | 191 | -27.9 | 37 | 46 | 41 | 34 | 24 | 16 |
| | | 480 | -0.157 | 31 | 227 | -39.2 | 40 | 49 | 47 | 40 | 31 | 23 |
| | | 630 | -0.271 | 41 | 297 | -67.5 | 44 | 54 | 55 | 50 | 42 | 35 |
| | 5' | 200 | -0.018 | - | 94 | -4.4 | 22 | 28 | 14 | - | - | - |
| | | 380 | -0.063 | 18 | 179 | -15.7 | 33 | 41 | 34 | 25 | 14 | - |
| | | 470 | -0.097 | 24 | 222 | -24.1 | 36 | 45 | 40 | 33 | 22 | 13 |
| | | 560 | -0.137 | 30 | 264 | -34.2 | 40 | 49 | 45 | 39 | 29 | 21 |
| | | 740 | -0.240 | 40 | 349 | -59.6 | 44 | 54 | 54 | 48 | 40 | 33 |
| 1" Slot Width | 2' | 120 | -0.022 | - | 57 | -5.4 | 41 | 25 | 13 | - | - | - |
| | | 250 | -0.095 | 24 | 118 | -23.5 | 53 | 37 | 35 | - | - | - |
| | | 315 | -0.150 | 29 | 149 | -37.4 | 57 | 41 | 41 | 14 | - | - |
| | | 380 | -0.218 | 33 | 179 | -54.4 | 60 | 44 | 47 | 19 | - | - |
| | | 510 | -0.393 | 41 | 241 | -97.9 | 65 | 49 | 55 | 28 | 18 | - |
| | 4' | 240 | -0.022 | 11 | 113 | -5.4 | 44 | 28 | 16 | - | - | - |
| | | 460 | -0.080 | 26 | 217 | -19.9 | 55 | 39 | 35 | - | - | - |
| | | 570 | -0.123 | 30 | 269 | -30.6 | 58 | 42 | 41 | 14 | - | - |
| | | 680 | -0.175 | 34 | 321 | -43.5 | 61 | 45 | 47 | 19 | - | - |
| | | 900 | -0.306 | 40 | 425 | -76.2 | 66 | 50 | 55 | 27 | 17 | - |
| | 5' | 280 | -0.019 | - | 132 | -4.7 | 43 | 28 | 15 | - | - | - |
| | | 550 | -0.073 | 19 | 260 | -18.2 | 55 | 39 | 35 | - | - | - |
| | | 685 | -0.114 | 25 | 323 | -28.3 | 59 | 43 | 41 | 14 | - | - |
| | | 820 | -0.163 | 31 | 387 | -40.5 | 62 | 45 | 46 | 19 | - | - |
| | | 1090 | -0.287 | 40 | 514 | -71.6 | 66 | 50 | 55 | 27 | 17 | - |
| 1 1/2" Slot Width | 2' | 180 | -0.022 | - | 85 | -5.5 | 32 | 40 | 35 | 27 | 17 | - |
| | | 360 | -0.088 | 18 | 170 | -21.9 | 44 | 54 | 56 | 51 | 44 | 38 |
| | | 450 | -0.137 | 25 | 212 | -34.1 | 48 | 58 | 63 | 59 | 53 | 47 |
| | | 540 | -0.197 | 31 | 255 | -49.2 | 51 | 62 | 69 | 65 | 60 | 55 |
| | | 720 | -0.351 | 40 | 340 | -87.4 | 56 | 67 | 77 | 75 | 71 | 68 |
| | 4' | 360 | -0.022 | - | 170 | -5.5 | 35 | 43 | 38 | 30 | 20 | - |
| | | 680 | -0.078 | 20 | 321 | -19.5 | 46 | 56 | 57 | 52 | 45 | 38 |
| | | 840 | -0.119 | 26 | 396 | -29.7 | 49 | 60 | 64 | 60 | 53 | 47 |
| | | 1000 | -0.169 | 32 | 472 | -42.2 | 53 | 63 | 69 | 66 | 60 | 55 |
| | | 1320 | -0.295 | 40 | 623 | -73.5 | 57 | 69 | 78 | 75 | 71 | 67 |
| | 5' | 400 | -0.017 | - | 189 | -4.3 | 34 | 42 | 35 | 27 | 16 | - |
| | | 800 | -0.069 | 18 | 378 | -17.3 | 46 | 56 | 56 | 51 | 43 | 36 |
| | | 1000 | -0.108 | 26 | 472 | -27.0 | 50 | 60 | 63 | 59 | 52 | 46 |
| | | 1200 | -0.156 | 31 | 566 | -38.9 | 53 | 63 | 69 | 65 | 59 | 54 |
| | | 1600 | -0.277 | 40 | 755 | -69.1 | 58 | 69 | 78 | 75 | 70 | 67 |

NOTES: 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, 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.

PTBR

PTBR Suggested Specification & Configuration
1. SERIES: (XXXX)

PTBR - Plenum Slot Return Diffuser

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. SLOT WIDTH: (XXX)

75 - 3/4"

100 - 1"

150 - 1 1/2"

6. FRAME STYLE/T-BAR LOCATION: (XXX)

23A - All Tees by Others

23B - Center Tee Only

23C - Tees on Both Sides

23D - Center and Outside Tees

7. MOUNTING TYPE: (XXXX)

00 - No Mounting

PF - Plaster Frame *

CN - Center Notch

MTT1 - Mounting Tab Opposite Inlet

MTT2 - Mounting Tabs on Both Sides

8. FINISH: (XX)

35 - Black Face with Optional White Tees

 50 - White Exposed Surfaces, Black Pattern
 Controller, and White Optional Tees

55 - Black with White Tees

 * Mounting Type PF is only available with Frame 23A and
 Frame 23B.

PTBR

The plenum slot return diffuser shall be Krueger model PTBR constructed of 24 gage galvanized steel. The inlet shall be designed to operate in a non-ducted return system. The PTBR shall have 3/4", 1" or 1 1/2" slot width with 1, 2, 3 or 4 slots.

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

Optional 1/4" thick, 2 lb. density internal 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 with optional white T-Bars.