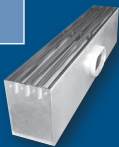




**PTBS**

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



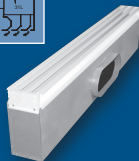
**PTBA**

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.



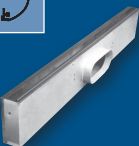
**PTBSS, PTBSSFB, & PFTBS (FR)**

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.



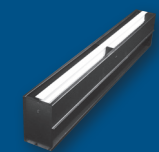
**PTBSC, PTBSRC**

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  
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 Engineering Specification ..... F1-51

**PTBSS, PTBSSFB & PFTBS (Fire Rated)**

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**PTBSC, PTBSRC, PTBSCDB, PTBSRCDB**

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 Dimensional Information ..... F1-69  
 Reference Charts..... F1-71  
 Performance Data..... F1-73  
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**PTBR & PFTBR (Fire Rated)**

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

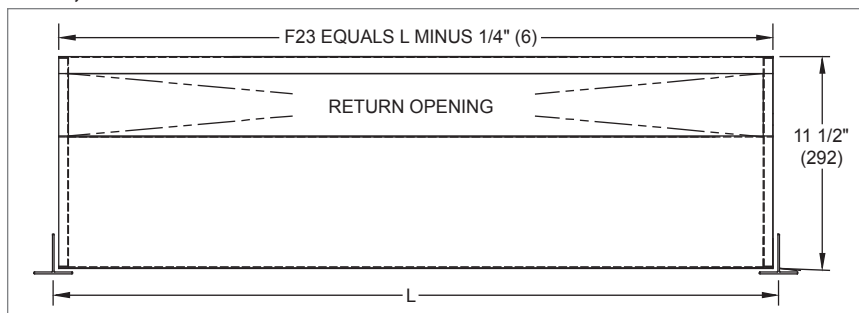
- Factory Installed T-Bars
- Plaster Frame

**FINISHES**

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

**PTBR Dimensional Information**

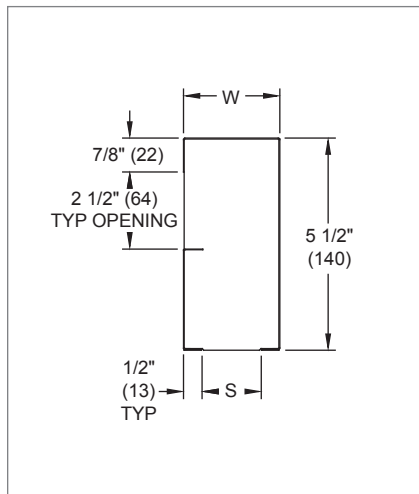
**PTBR, RETURN OPENING SIDE VIEW**



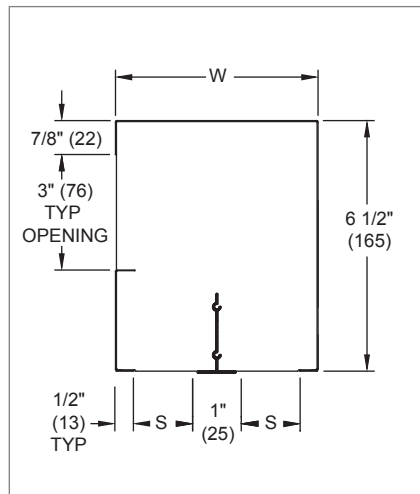
**PTBR, AVAILABLE SIZES**

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)

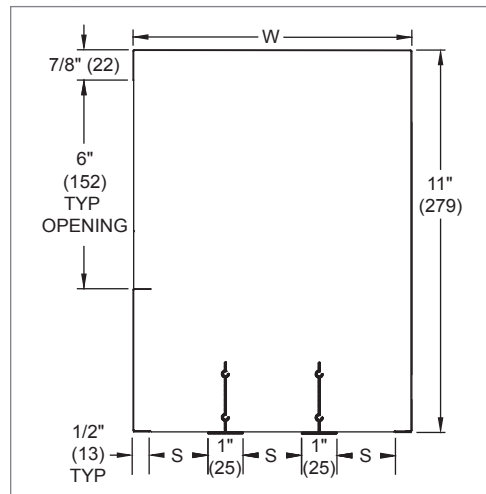
**PTBR, 1-SLOT CROSS SECTION**



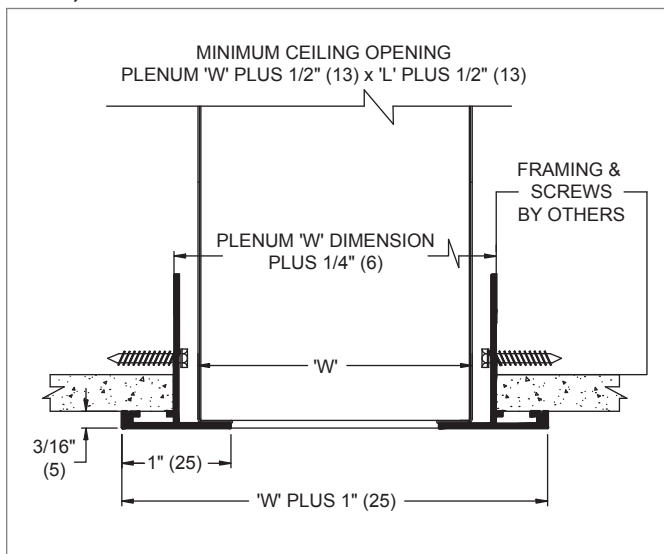
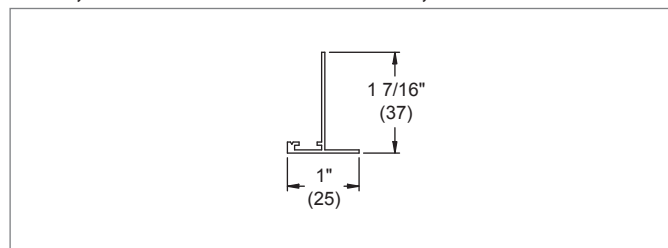
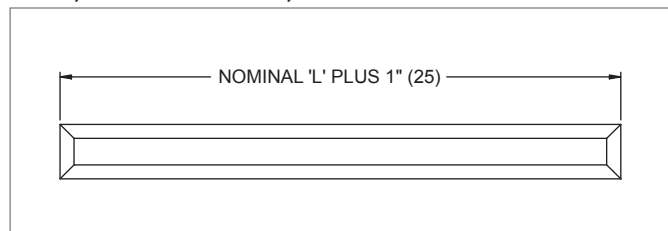
**PTBR, 2-SLOT CROSS SECTION**



**PTBR, 3-SLOT CROSS SECTION**



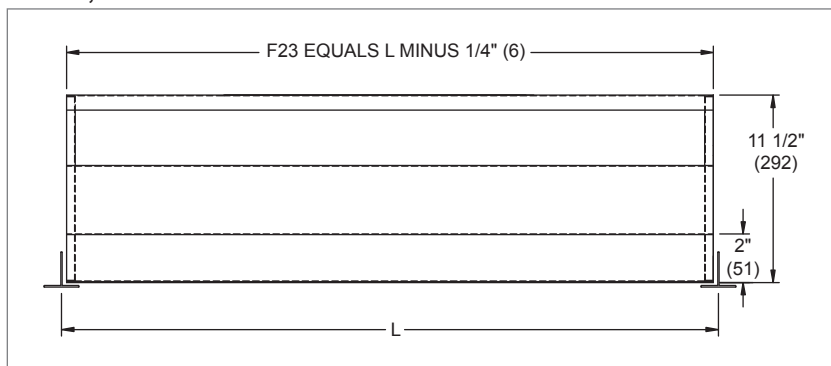
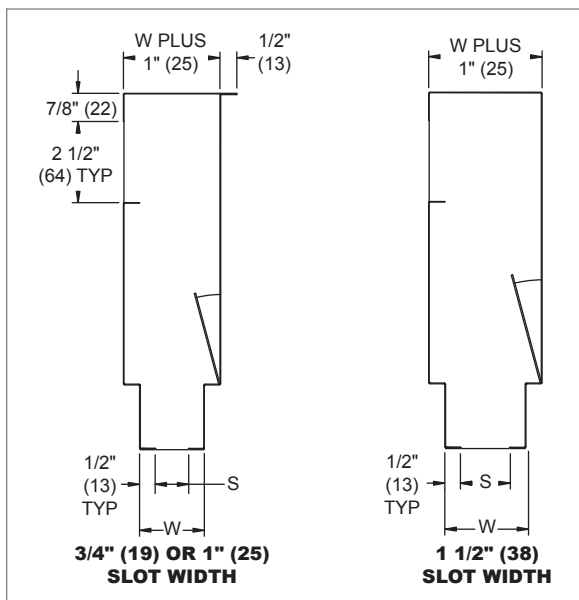
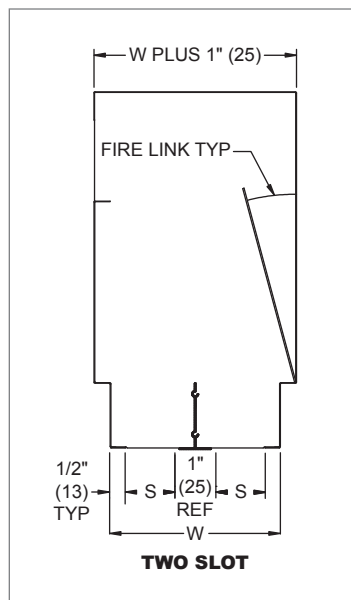
NOTE: Dimensions in parentheses are mm.

**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.

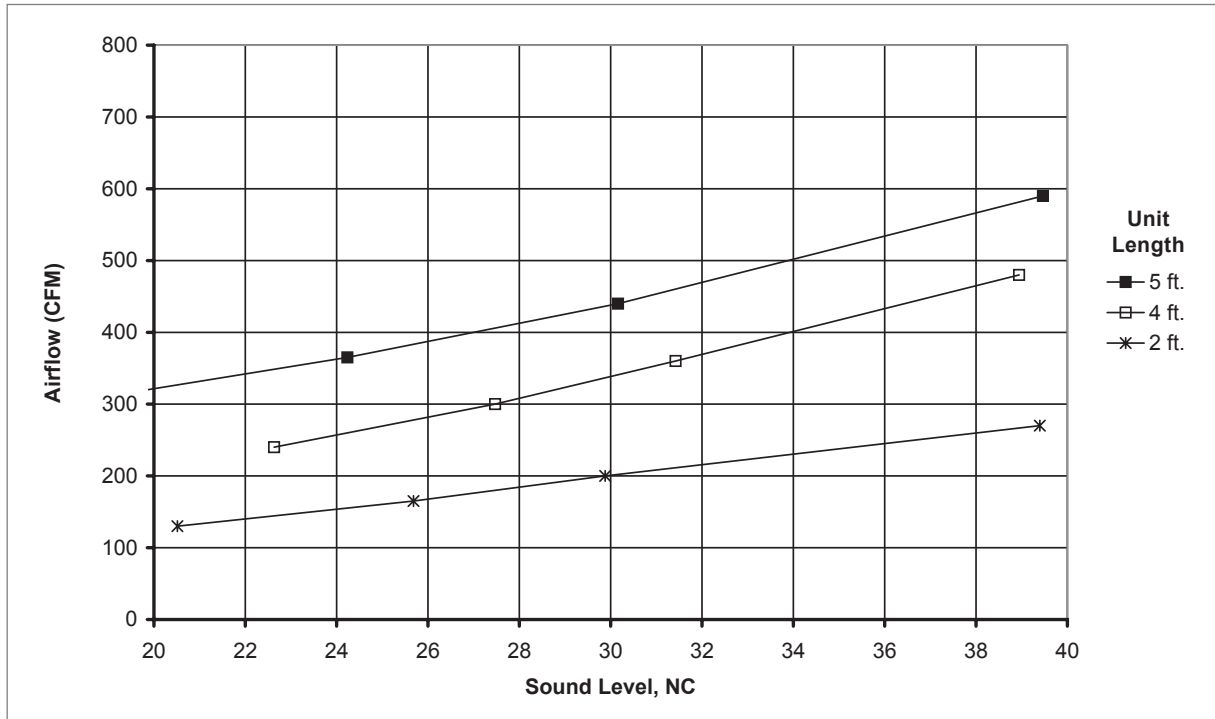
**PFTBR, INLET VIEW**

**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) *

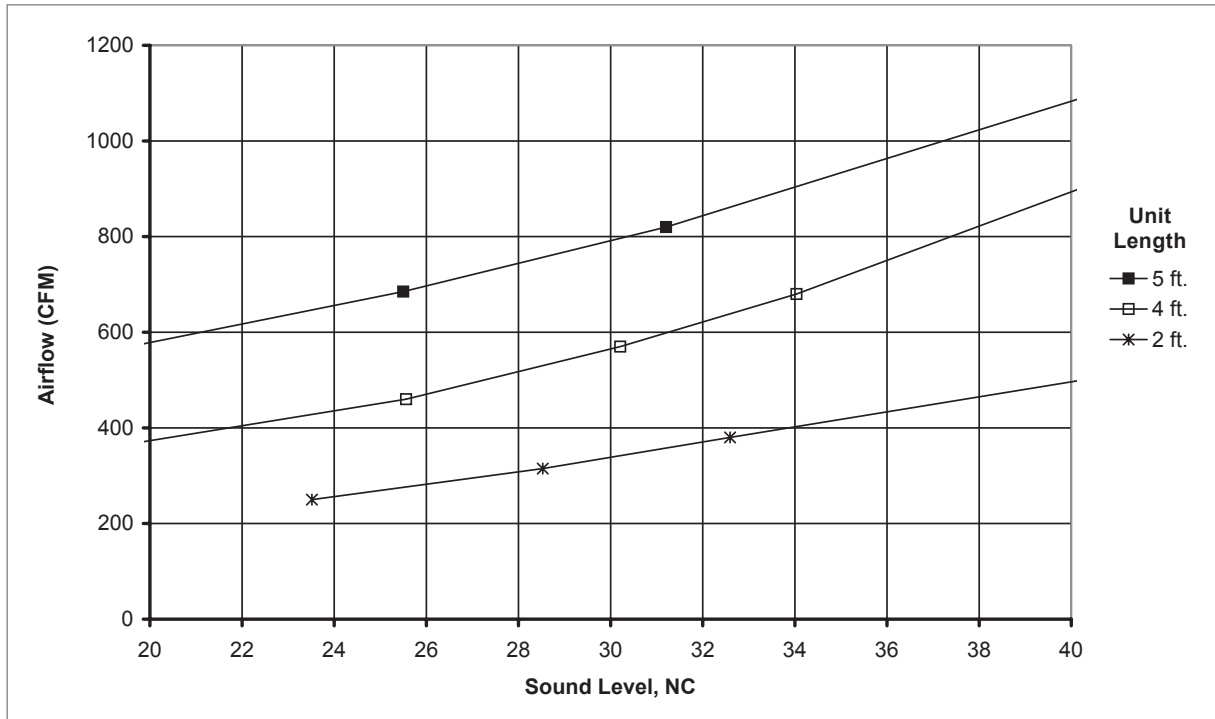
NOTES: Dimensions in parentheses are mm. \*2-Slot, 1 1/2" Slot Width is not available with UL rating.

**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: PFTBR, 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'	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		
1" Slot Width	2'	60	-0.022	-	28	-5.4	22	29	19	-	-	-
		130	-0.102	21	61	-25.4	35	44	43	37	28	20
		165	-0.165	26	78	-41.0	39	49	50	45	37	31
		200	-0.242	30	94	-60.2	43	53	56	52	45	39
	270	-0.441	39	127	-109.8	48	59	66	62	57	52	
	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	-		
1 1/2" Slot Width	2'	90	-0.022	-	42	-5.5	29	37	32	24	14	-
		190	-0.098	16	90	-24.4	42	52	55	50	43	37
		240	-0.156	24	113	-38.9	46	56	62	58	52	47
		290	-0.228	30	137	-56.7	49	60	68	65	60	55
	390	-0.412	39	184	-102.6	54	66	77	75	71	68	
	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		

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<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.

**PTBR Performance Data: Return**

IP/METRIC DATA: PFTBR, 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	-	-	-	
		320	-0.070	18	151	-17.4	33	41	34	26	15	-	
		390	-0.104	24	184	-25.9	36	45	40	33	23	14	
		460	-0.145	30	217	-36.0	39	48	45	39	29	21	
		600	-0.246	39	283	-61.3	44	53	54	48	40	33	
1" Slot Width	2'	120	-0.022	-	57	-5.4	25	32	22	13	-	-	
		240	-0.087	23	113	-21.7	37	46	44	37	28	20	
		300	-0.136	27	142	-33.9	41	50	50	45	37	30	
		360	-0.196	31	170	-48.8	44	54	56	51	44	38	
		480	-0.348	39	227	-86.7	49	59	65	61	55	50	
	4'	250	-0.024	12	118	-5.9	44	29	17	-	-	-	
		450	-0.077	25	212	-19.1	54	38	34	-	-	-	
		550	-0.114	29	260	-28.5	58	42	40	13	-	-	
		650	-0.160	33	307	-39.8	61	44	45	18	-	-	
		850	-0.273	39	401	-68.0	65	49	53	26	16	-	
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'	250	-0.011	-	118	-2.6	28	36	27	18	-	-	
		600	-0.061	17	283	-15.2	44	53	54	48	40	33	
		775	-0.102	23	366	-25.3	48	58	61	57	50	44	
		950	-0.153	30	448	-38.0	52	62	68	64	58	53	
		1300	-0.286	40	614	-71.2	57	68	77	75	70	66	

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<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.

PTBR

**PFTBR Suggested Specification & Configuration**

PLENUM SLOT DIFFUSERS

**PFTBR**

The fire rated plenum slot return diffuser shall be Krueger model PFTBR constructed of 24 gage galvanized steel. The diffuser must be UL classified fire rated ceiling diffuser assembly listed in Underwriters Laboratories Fire Resistance Directory. The diffuser shall be tested in accordance with UL 263 and must meet NFPA 90 requirements. The inlet shall be designed to operate in a non-ducted return system. The PFTBR shall have 3/4", 1" or 1 1/2" slot width with 1, 2, 3 or 4 slots.

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 with optional white T-Bars.



- 1. SERIES: (XXXXX)**  
PFTBR - Fire Rated Plenum Slot Return Diffuser
- 2. INSULATION: (X)**  
N - No Insulation  
Y - Insulation
- 3. SLOT LENGTH: (XX)**  
24", 36", or 48"
- 4. NUMBER OF SLOTS: (X) \*\***  
1 or 2
- 5. SLOT WIDTH: (XXX)**  
75 - 3/4"  
100 - 1"  
150 - 1 1/2"
- 6. FRAME STYLE/T-BAR LOCATION: (XXXX)**  
23A - All Tees by Others \*  
23C - Tees on Both Sides  
23EL - Tee Opposite Inlet  
23ER - Tee on Inlet Side
- 7. 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

\* Center tee on 2-Slot PFTBR, Frame 23A is furnished by the factory.  
\*\* 2-Slot, 1 1/2" Slot Width is not available with UL rating.

**SAMPLE CONFIGURATION: PFTBR - N - 48 - 1 - 100 - 23A - 35**