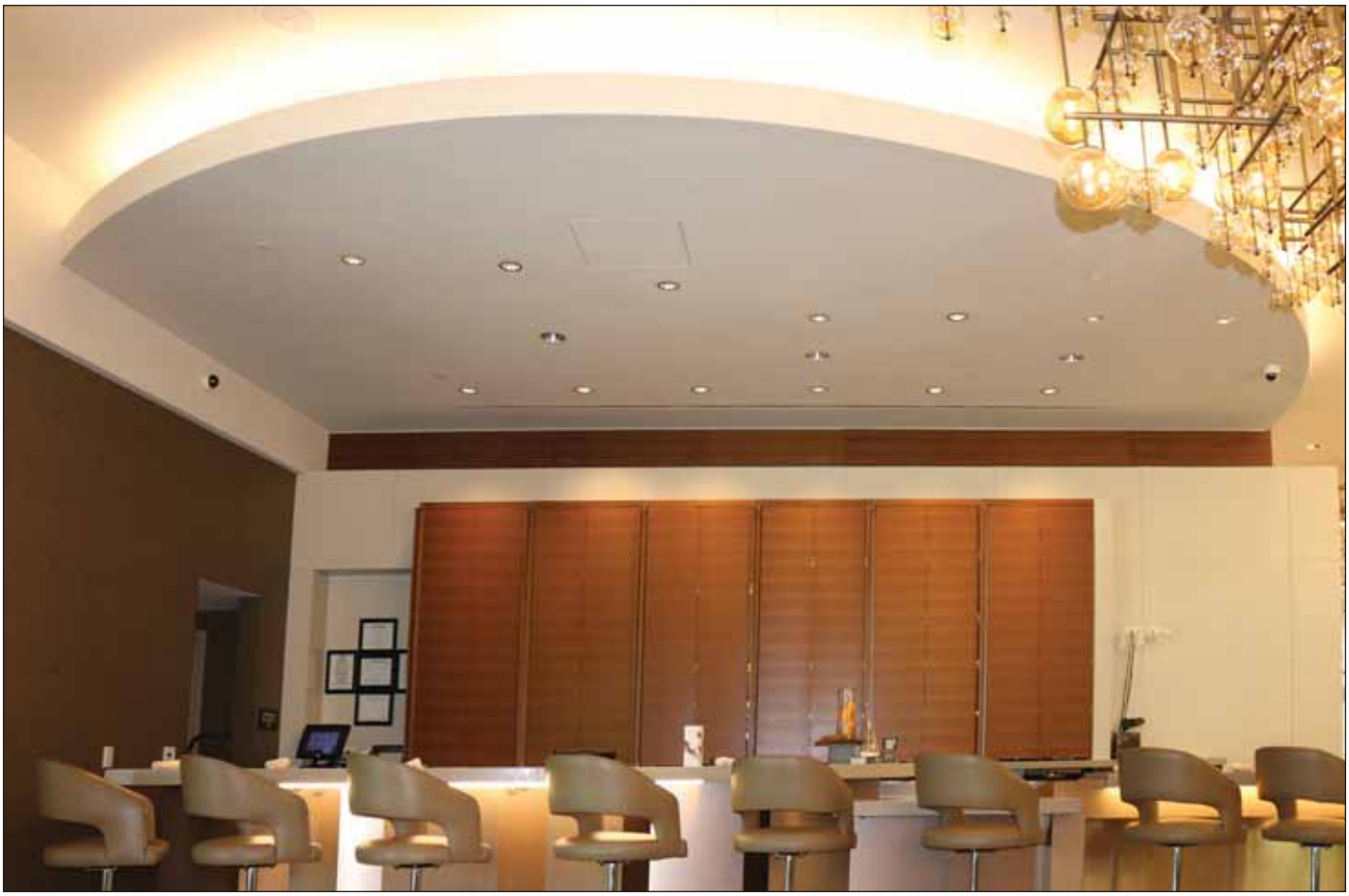




THE FLOWLINE™ SYSTEM...

AN ARCHITECTURAL SOLUTION FOR SUPERIOR AIR DISTRIBUTION.

FlowLine™ is a custom architectural linear diffuser system designed to integrate and blend supply and return air openings harmoniously into interior commercial building designs. The flexibility of FlowLine™ provides design and application possibilities that are limited only by your imagination. FlowLine™ can blend or contrast as you integrate it into either ceiling or sidewall applications. FlowLine™ linear may be used to either inconspicuously hide the air distribution system or conversely it may be used as a contrasting, architectural design element, using straight lines and/or curves to enhance the interior of a building.

Whether you require straight lines, mitered angles or smooth curves, Nailor can custom fabricate FlowLine™ to meet your most demanding architectural and engineering performance requirements. FlowLine™ can be custom curved in any plane to suit architectural requirements. Flat face radiuses for ceilings and concave or convex curving for sidewall applications are available to special order. FlowLine™ is fabricated using sturdy heavy wall aluminum extrusions. A variety of frame/border styles and associated mounting hardware allows FlowLine™ to be installed either during or after ceiling installation. In acoustical suspension ceiling systems using continuous runs, the FlowLine™ system is installed at the same time as the ceiling grid and becomes an integral part of the ceiling assembly.

FlowLine™ linear is available in five slot widths providing a much higher air volume capability than conventional multiple slot linear designs, which are more visible. A two slot option is also available for even higher capacities. Engineered for outstanding performance and tested in accordance with the latest ASHRAE Standard 70, FlowLine™ can provide higher airflows at lower noise levels than traditional linear slot designs, making it an ideal solution for high profile architectural projects.



FlowLine™ is available in two air pattern controller designs. The FLH Series features adjustable horizontal high throw pattern controllers for ceiling applications. The FLV Series features adjustable vertical jet pattern controllers for high ceiling and sidewall applications.

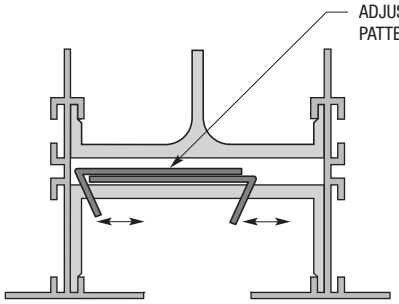
...Invisible Air

KEY FEATURES:

- High capacity single slot linear diffuser available in five slot widths, offers an attractive alternative to traditional multi-slot designs. Available slot widths are 1" (25), 1 1/2" (38), 2" (51), 2 1/2" (64) and 3" (76). A two slot option is also available.
- Comprehensive selection of frame/border styles and mounting hardware to suit any installation.
- Choice of FLH Series Horizontal or FLV Series Vertical Pattern Controllers. May be combined within a single system.
- Custom curving availability to meet specific design requirements, provides architectural appeal.
- Heavy wall extruded aluminum construction permits support and full integration with ceiling system.
- Mitered end borders are available which maximize aesthetic appeal.
- Available in single sections up to 12 ft. (3658) in length. Longer lengths are supplied in multiple sections with alignment strips for field assembly.
- High performance design is ideally suited to VAV systems, both heating and cooling.
- Custom colors and anodized finishes are available.

FLH SERIES:

Designed primarily for continuous linear slot ceiling applications requiring horizontal air patterns. Tight, high induction air pattern maximizes coanda effect under a wide range of airflow volumes for maximum occupant comfort. Typical applications would include open office perimeter zones, entrance foyers and lobbies, mall and office entrance atriums and conference meeting rooms.

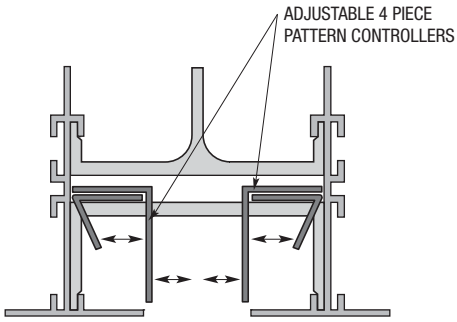


Horizontal High Throw Series:
Pattern controllers provide 180° directional control; left or right horizontal throw, angular discharge, volume control and shut-off capability.

FLV SERIES:

Designed primarily for continuous linear slot ceiling applications requiring an adjustable extended throw vertical air pattern. Typical applications would include perimeter glass curtain walls and high bays for heated and/or cooled air, which may be directed downwards, terminating at the floor at a comfortable velocity. Also suitable for interior zones with high ceilings, such as entrance foyers and lobbies, mall and office entrance atriums, convention center and theaters.

This model may also be used in high sidewall applications with long throw requirements.



Vertical Jet Throw Series:
Versatile pattern controllers provide for an adjustable perpendicular discharge.

FLP(I) SERIES:

Nailor offers factory built supply air plenum boots in various lengths to suit the application in both uninsulated and insulated versions. Nailor engineered plenums save on costly field labor and ensure a sure-fit trouble free installation.

FT SERIES:

The FlowLine™ Series is available in modular lengths for lay-in T-Bar applications, utilizing either the horizontal high throw or vertical jet throw pattern controllers. Units are supplied with factory installed engineered plenums in uninsulated or insulated versions.

FM SERIES:

The FM Series is an architecturally pleasing modular square ceiling diffuser primarily for lay-in T-Bar applications. Designed to complement the FlowLine™ Linear Diffuser System, the FM Series features a single slot at the perimeter of a 2 ft. x 2 ft. (600 x 600) ceiling module and accommodates a center acoustic ceiling tile.

FT SERIES

- LAY-IN UNITS FOR T-BAR SUSPENSION CEILING SYSTEMS
- COMPLETE WITH ENGINEERED PLENUM
- CHOICE OF HORIZONTAL OR VERTICAL PATTERN CONTROLLERS

Horizontal High Throw Models:

Standard 15/16" (24) or 9/16" (14) Flat T-Bar

FTH(I)10	**1" (25) Slot**
FTH(I)15	**1 1/2" (38) Slot**
FTH(I)20	**2" (51) Slot**
FTH(I)25	**2 1/2" (64) Slot**
FTH(I)30	**3" (76) Slot**

Bolt-Slot (Fineline® Type) T-Bar

FTBH(I)10	**1" (25) Slot**
FTBH(I)15	**1 1/2" (38) Slot**
FTBH(I)20	**2" (51) Slot**
FTBH(I)25	**2 1/2" (64) Slot**
FTBH(I)30	**3" (76) Slot**

Vertical Jet Throw Models:

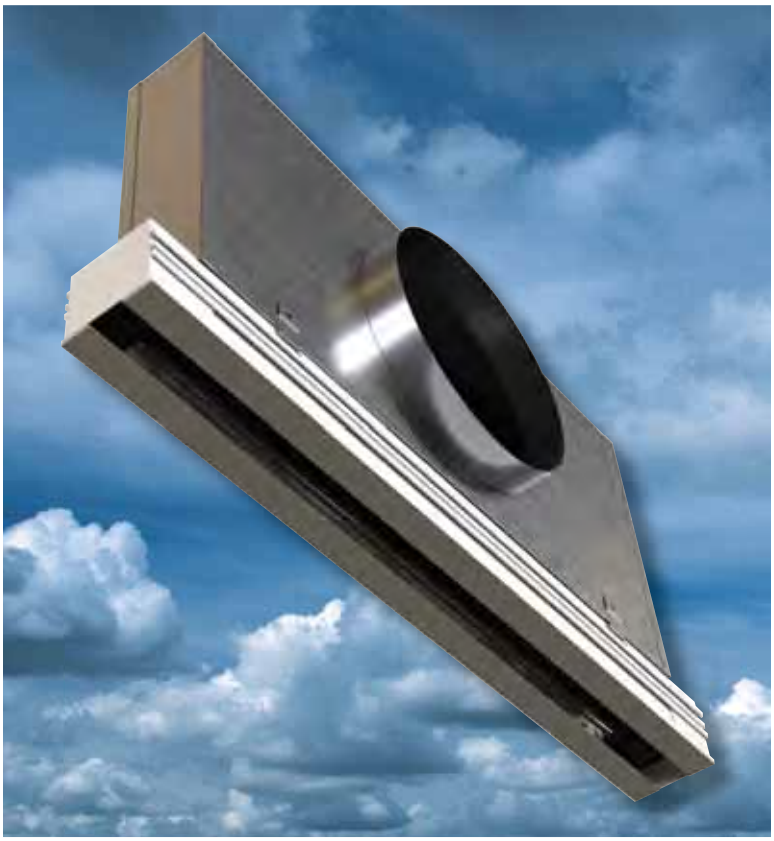
Standard 15/16" (24) or 9/16" (14) Flat T-Bar

FTV(I)10	**1" (25) Slot**
FTV(I)15	**1 1/2" (38) Slot**
FTV(I)20	**2" (51) Slot**
FTV(I)25	**2 1/2" (64) Slot**
FTV(I)30	**3" (76) Slot**

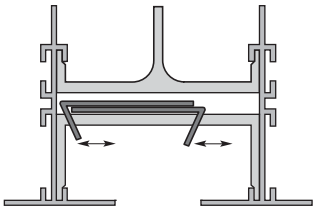
Bolt-Slot (Fineline® Type) T-Bar

FTBV(I)10	**1" (25) Slot**
FTBV(I)15	**1 1/2" (38) Slot**
FTBV(I)20	**2" (51) Slot**
FTBV(I)25	**2 1/2" (64) Slot**
FTBV(I)30	**3" (76) Slot**

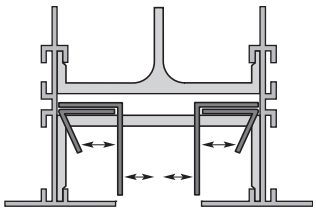
(I) Adds internal insulation.



Pattern Controller Options



FTH Series
Horizontal High Throw Design



FTV Series
Vertical Jet Throw Design

The FT Series is a modular version of Nailor's FlowLine™ Linear Diffuser System. The FT Series is available in various discrete lengths for installation in lay-in type suspended ceiling grid systems. They are available for both Imperial and Metric ceiling grids. These diffusers are manufactured to fit standard ceiling grid modules and provide quick and easy installation. The units are provided with factory mounted engineered plenums and are normally individually suspended by either integral hanger brackets at each end of the diffuser and/or hanger straps on the plenum. Relocation is easy for office layout and tenant improvement changes.

The high induction characteristics of the FTH Series Horizontal High Throw pattern controller option make it an excellent choice for variable air volume systems. The FTV Series Vertical Jet Throw option is ideally suited to perimeter glass curtain wall applications.

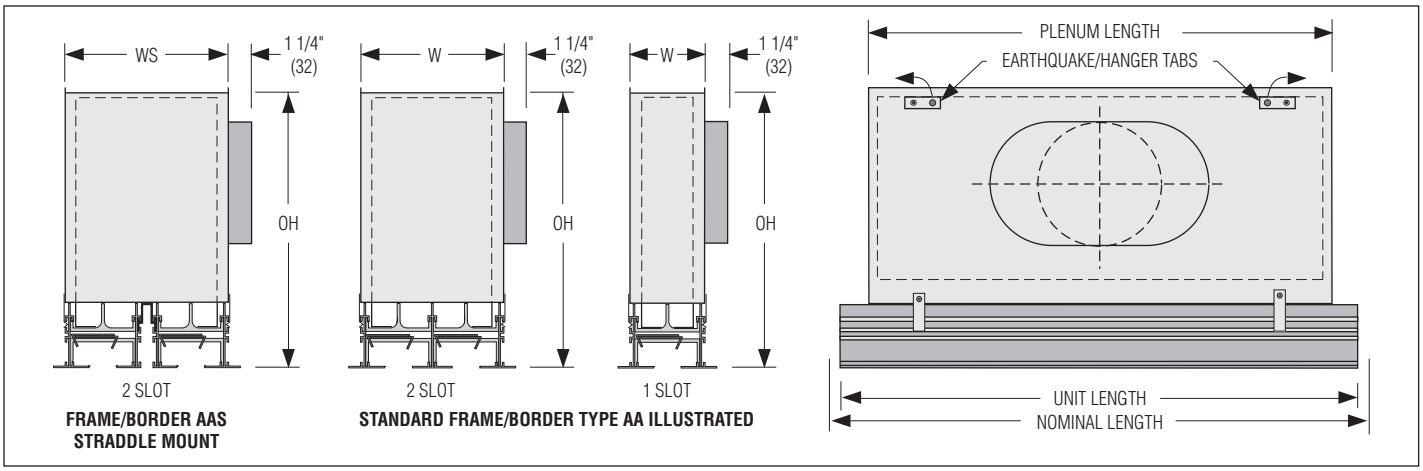
These units are also suitable for return air applications. Return models are available and supplied without plenum (Models FTHR and FTBHR). Supplied with horizontal type dual pattern controllers for system balancing.

STANDARD FEATURES:

- Available in 24" (610), 48" (1219) and 60" (1524) nominal lengths (FTH and FTV series models).
- Available in 600 mm, 1200 mm and 1500 mm nominal lengths for Metric Suspension Ceiling Systems (FTH and FTV series models).
- Standard slot widths are 1" (25), 1 1/2" (38) and 2" (51).
- Heavy wall extruded aluminum construction with galvanized steel pattern controllers.
- Horizontal or vertical throw pattern controller options.
- Supply models are complete with an integral engineered plenum. Optional internal insulation is available.
- Various Frame/Border styles are available to integrate with most ceiling systems.
- Units are supplied with flat end caps.
- Standard finish is AW Appliance White on exposed frame surfaces. Pattern controllers and interior surfaces are black.

FT SERIES • 9/16" (14) OR 15/16" (24) FLAT T-BAR

(TYPE H HORIZONTAL PATTERN CONTROLLERS ILLUSTRATED. ALSO AVAILABLE WITH TYPE V VERTICAL).



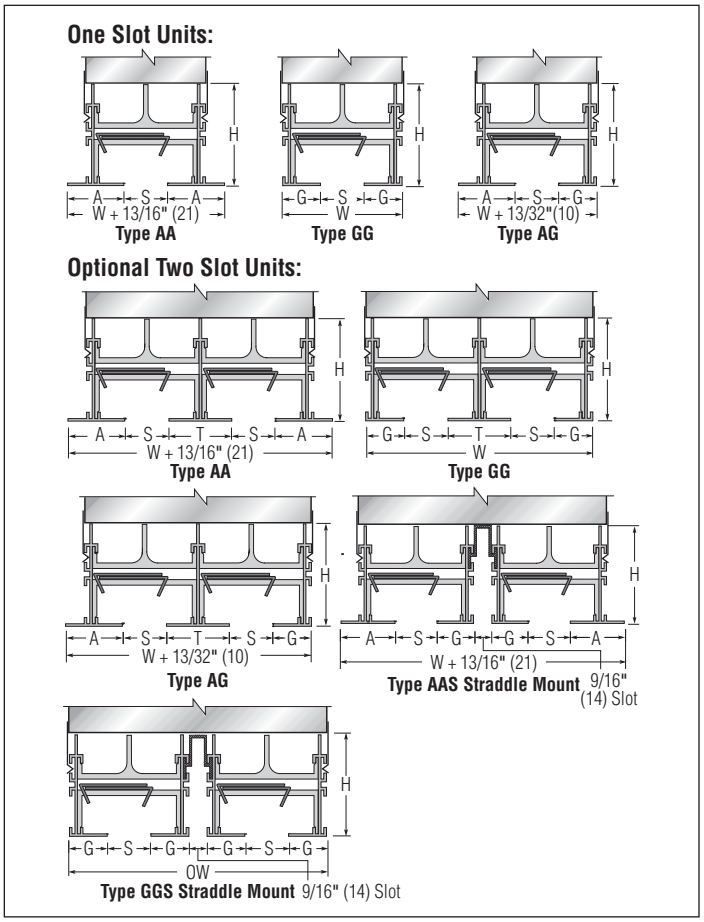
Dimensional Data (Imperial Grids)

Nominal Length	Unit Length	Plenum Length	Available Inlet Sizes	
			1 Slot	2 Slot
24 (610) 48 (1219) 60 (1524)	23 3/4 (603) 47 3/4 (1213) 59 3/4 (1518)	20 3/4 (527) 44 3/4 (1137) 56 3/4 (1441)	6 (152), 8 (203) Round 10 (254), 12(305), 14 (356) Flat Oval*	6 (152), 8 (203), 10 (254), 12 (305), 14 (356) Round

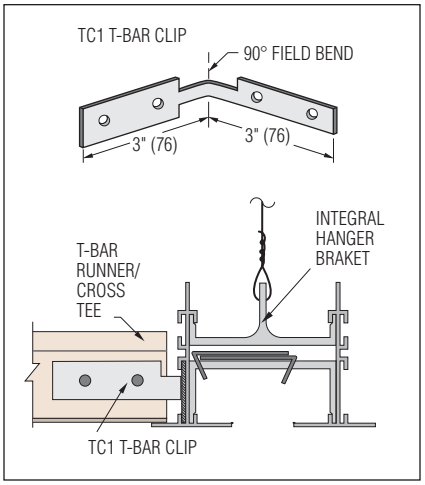
FT Series Model	1 Slot		2 Slot		
	W	OH	W	WS	OH
FT(H or V)(I)10	2 3/4 (70)	12 3/8 (314)	5 3/16 (132)	6 1/16 (154)	18 3/8 (467)
FT(H or V)(I)15	3 3/4 (95)	12 5/8 (321)	7 3/16 (183)	8 1/16 (205)	18 5/8 (473)
FT(H or V)(I)20	4 3/4 (121)	12 7/8 (327)	9 3/16 (233)	10 1/16 (256)	18 7/8 (479)
FT(H or V)(I)25	5 3/4 (146)	13 1/8 (333)	11 3/16 (284)	12 1/16 (306)	19 1/8 (486)
FT(H or V)(I)30	6 3/4 (171)	13 3/8 (340)	13 3/16 (335)	14 1/16 (357)	19 3/8 (492)

*** Equivalent Oval:** 10" (254) = 11" x 7 7/8" (279 x 200); 12" (305) = 14 1/8" x 7 7/8" (359 x 200); 14" (356) = 17 5/16" x 7 7/8" (440 x 200).

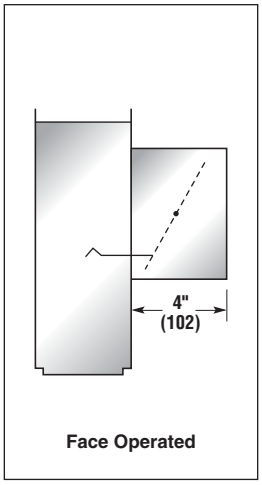
AVAILABLE FT SERIES BORDER TYPES



OPTIONAL MOUNTING HARDWARE



OPTIONAL ID INLET DAMPER

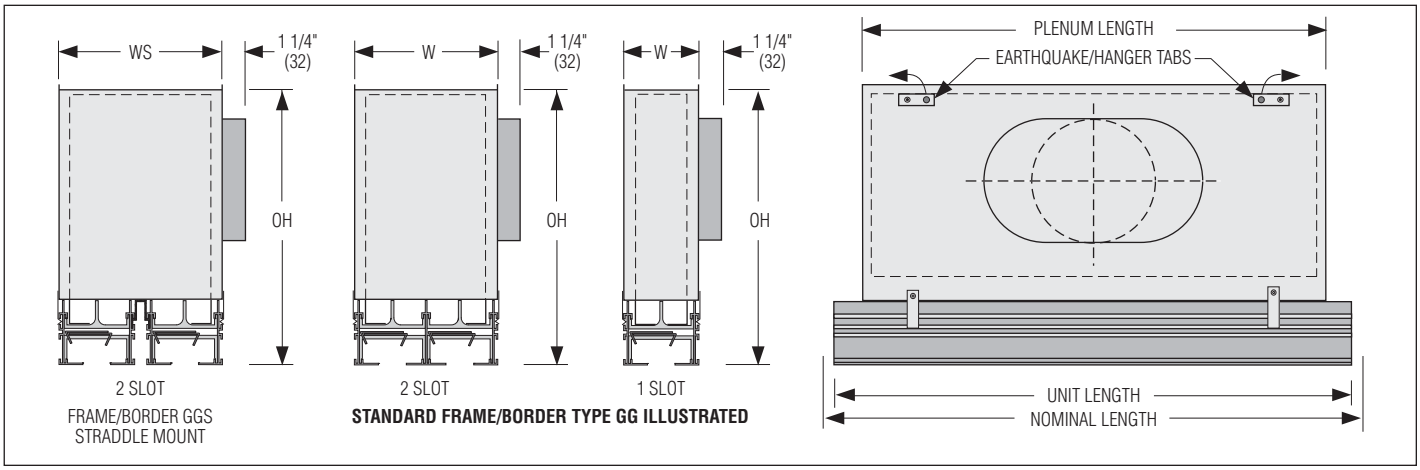


Dimensional Data - Imperial (Metric) Units

FT Series Model	S Slot Width	A Border Width	G Border Width	H Height	T 2 Slot
FT(H or V)(I)10	1 (25)	1 9/32 (33)	7/8 (22)	2 3/8 (60)	1 7/16 (37)
FT(H or V)(I)15	1 1/2 (38)	1 17/32 (39)	1 1/8 (29)	2 5/8 (67)	1 15/16 (49)
FT(H or V)(I)20	2 (51)	1 25/32 (45)	1 3/8 (35)	2 7/8 (73)	2 7/16 (62)
FT(H or V)(I)25	2 1/2 (64)	2 1/32 (52)	1 5/8 (41)	3 1/8 (79)	2 15/16 (75)
FT(H or V)(I)30	3 (76)	2 9/32 (58)	1 7/8 (48)	3 3/8 (86)	3 7/16 (87)

FTB SERIES • BOLT-SLOT (FINELINE® TYPE) T-BAR

(TYPE H HORIZONTAL PATTERN CONTROLLERS ILLUSTRATED. ALSO AVAILABLE WITH TYPE V VERTICAL).



Dimensional Data (Imperial Grids)

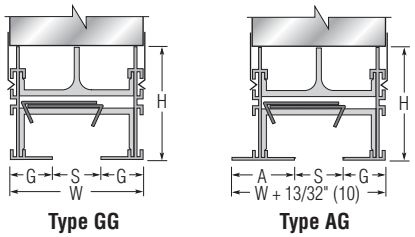
Nominal Length	Unit Length	Plenum Length	Available Inlet Sizes	
			1 Slot	2 Slot
24 (610) 48 (1219)	23 3/8 (594) 47 3/8 (1203)	20 3/8 (518) 44 3/8 (1127)	6 (152), 8 (203) Round 10 (254), 12(305), 14 (356) Flat Oval*	6 (152), 8 (203), 10 (254), 12 (305), 14 (356) Round

FTB Series Model	1 Slot		2 Slot		
	W	OH	W	WS	OH
FTB(H or V)(I)10	2 3/4 (70)	12 3/8 (314)	5 3/16 (132)	6 1/16 (154)	18 3/8 (467)
FTB(H or V)(I)15	3 3/4 (95)	12 5/8 (321)	7 3/16 (183)	8 1/16 (205)	18 5/8 (473)
FTB(H or V)(I)20	4 3/4 (121)	12 7/8 (327)	9 3/16 (233)	10 1/16 (256)	18 7/8 (479)
FTB(H or V)(I)25	5 3/4 (146)	13 1/8 (333)	11 3/16 (284)	12 1/16 (306)	19 1/8 (486)
FTB(H or V)(I)30	6 3/4 (171)	13 3/8 (340)	13 3/16 (335)	14 1/16 (357)	19 3/8 (492)

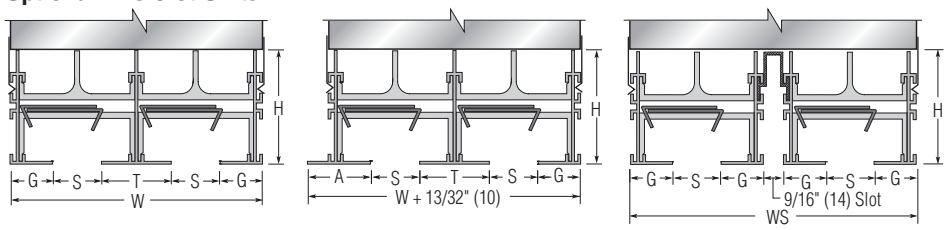
*** Equivalent Oval:** 10" (254) = 11" x 7 7/8" (279 x 200); 12" (305) = 14 1/8" x 7 7/8" (359 x 200); 14" (356) = 17 5/16" x 7 7/8" (440 x 200).

AVAILABLE FTB SERIES BORDER TYPES

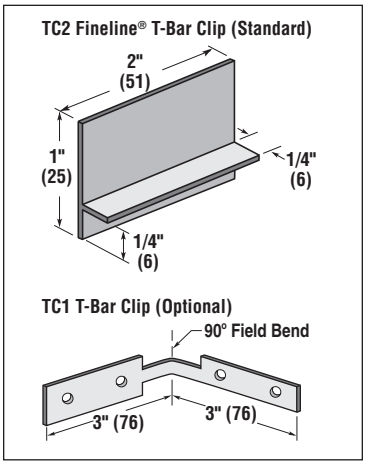
One Slot Units:



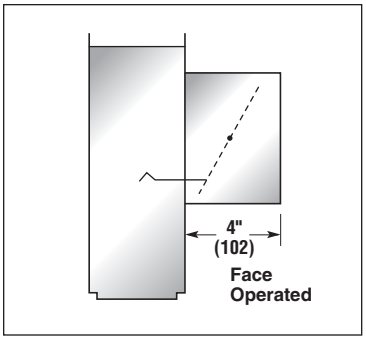
Optional Two Slot Units:



MOUNTING HARDWARE



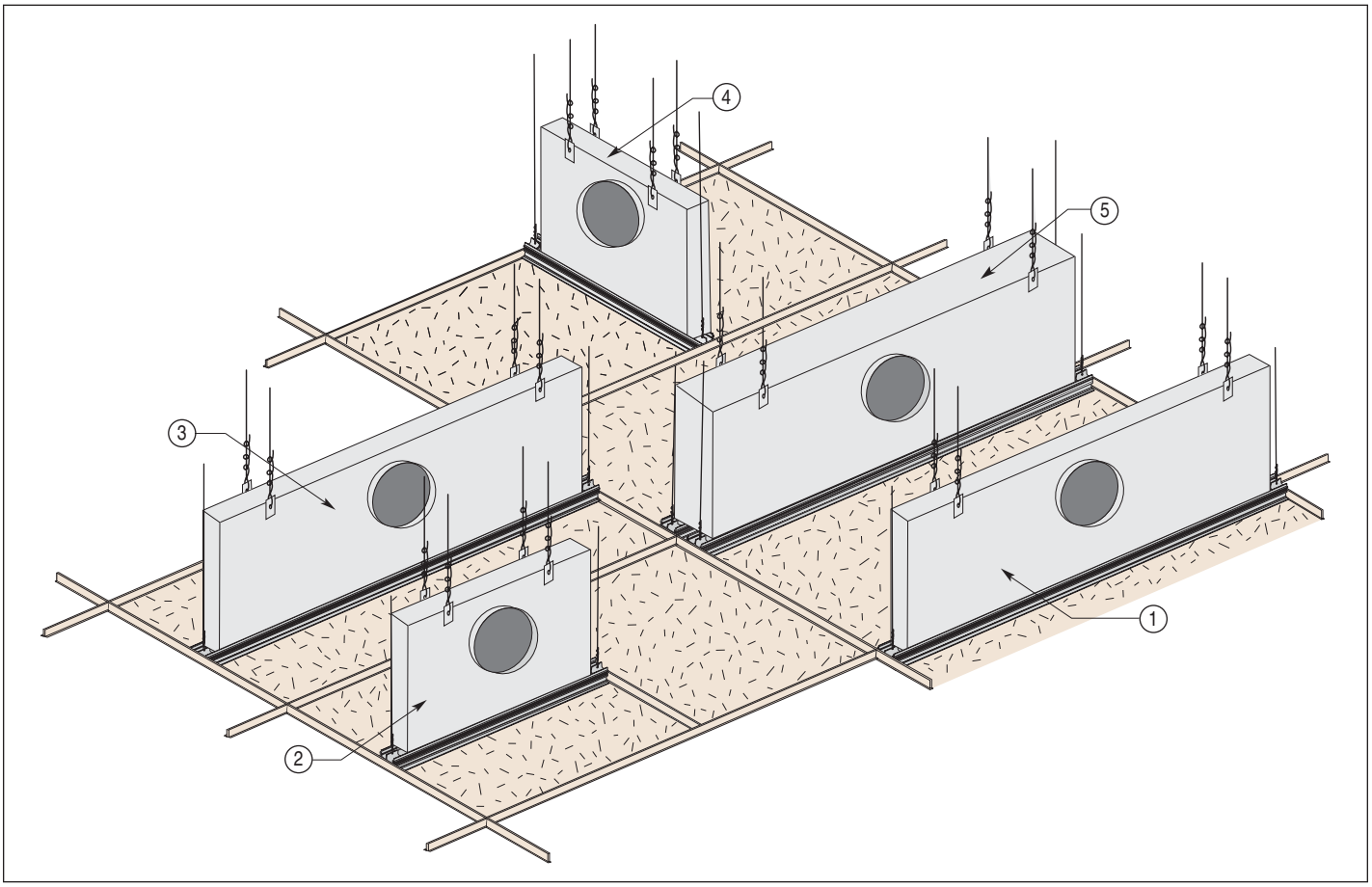
OPTIONAL ID INLET DAMPER



Dimensional Data - Imperial (Metric) Units

FTB Series Model	S Slot Width	A Border Width	G Border Width	H Height	T 2 Slot
FTB(H or V)(I)10	1 (25)	1 9/32 (33)	7/8 (22)	2 3/8 (60)	1 7/16 (37)
FTB(H or V)(I)15	1 1/2 (38)	1 17/32 (39)	1 1/8 (29)	2 5/8 (67)	1 15/16 (49)
FTB(H or V)(I)20	2 (51)	1 25/32 (45)	1 3/8 (35)	2 7/8 (73)	2 7/16 (62)
FTB(H or V)(I)25	2 1/2 (64)	2 1/32 (52)	1 5/8 (41)	3 1/8 (79)	2 15/16 (75)
FTB(H or V)(I)30	3 (76)	2 9/32 (58)	1 7/8 (48)	3 3/8 (86)	3 7/16 (87)

TYPICAL FT SERIES APPLICATION • T-BAR CEILING SUSPENSION SYSTEMS



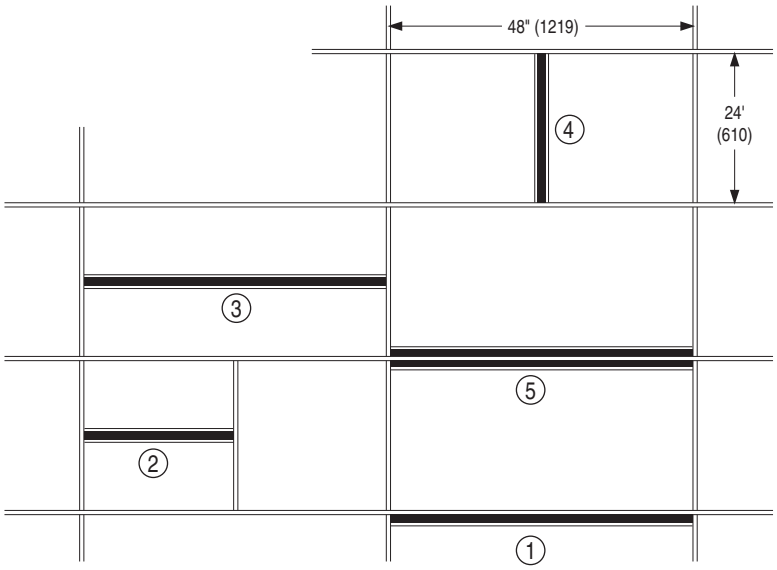
DESCRIPTION:

1. Nominal 4 ft. (1219) unit installed alongside a main runner.
2. 2 ft. (610) unit installed parallel to and mid-way between main runners.
3. Nominal 4 ft. (1219) unit installed mid-way between main runners.
4. 2 ft. (610) unit installed perpendicular to main runners.
5. Nominal 4 ft. (1219) two slot unit straddling a main runner.

Notes:

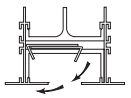
Frame/Border style should be carefully selected to ensure compatibility with specific ceiling grid suspension system and desired visual appearance. Type A Flange Border can lie on flat T-Bar or support cut ceiling tile. Type G Flangeless Border requires a supplementary cross tee for support in 15/16" (24) or 9/16" (14) flat T-Bar applications. In Bolt Slot (Fineline® Type) applications, utilizing Type G Flangeless Border, optional TC2 Fineline® T-Bar Clips are recommended to support and level the unit. Bolt slot ceiling system grids are usually 2 ft. x 2 ft. (610 x 610) modules. Cross notches on 4 ft. (1219) units are not available. Modification of ceiling grid and field cutting of ceiling tiles will be required.

Reflected Ceiling Plan 2 ft. x 4 ft. (610 x 1219) T-Bar Grid



PERFORMANCE DATA • HORIZONTAL HIGH THROW SERIES

MODELS: FLH (10, 15, 20, 25 & 30) • CONTINUOUS PRESSURIZED PLENUM



1" Slot Width	1 Slot	Airflow, CFM/FT.	20	35	50	65	80	95	110
		Static Pressure	.013	.039	.080	.135	.205	.289	.387
		Noise Criteria	<15	<15	23	30	36	42	45
		Throw	4-6-12	7-11-16	10-14-20	13-16-22	15-18-25	16-20-27	17-21-30
	2 Slot	Airflow, CFM/FT.	40	70	100	130	160	190	220
		Static Pressure	.013	.039	.080	.135	.205	.289	.387
		Noise Criteria	<15	<15	25	33	39	45	48
		Throw	5-8-17	10-15-24	15-20-29	17-22-32	19-25-35	20-28-38	22-30-40
1.5" Slot Width	1 Slot	Airflow, CFM/FT.	25	40	55	70	85	100	115
		Static Pressure	.011	.029	.054	.089	.130	.180	.237
		Noise Criteria	<15	<15	17	25	31	36	40
		Throw	5-8-12	9-12-17	12-15-20	14-17-22	15-18-25	16-20-28	17-21-30
	2 Slot	Airflow, CFM/FT.	55	80	105	130	155	180	205
		Static Pressure	.014	.029	.049	.076	.108	.145	.189
		Noise Criteria	<15	<15	16	26	31	35	39
		Throw	8-12-19	12-17-25	15-20-29	17-22-31	20-26-35	21-27-39	23-30-40
2" Slot Width	1 Slot	Airflow, CFM/FT.	25	45	65	85	105	125	145
		Static Pressure	.007	.021	.044	.075	.115	.163	.219
		Noise Criteria	<15	<15	19	24	32	38	43
		Throw	4-8-13	8-12-18	11-16-22	14-19-26	16-21-30	17-22-31	20-24-34
	2 Slot	Airflow, CFM/FT.	45	85	125	165	205	245	285
		Static Pressure	.005	.019	.042	.073	.113	.161	.218
		Noise Criteria	<15	<15	19	26	34	40	45
		Throw	4-9-15	11-16-25	16-21-29	21-26-37	23-28-40	26-31-42	27-32-44
2.5" Slot Width	1 Slot	Airflow, CFM/FT.	30	55	80	105	130	155	180
		Static Pressure	.009	.031	.065	.113	.173	.245	.331
		Noise Criteria	<15	<15	18	25	30	34	39
		Throw	3-7-16	9-14-21	13-18-26	15-20-29	18-22-33	20-25-36	21-27-39
	2 Slot	Airflow, CFM/FT.	60	105	150	195	240	285	330
		Static Pressure	.009	.028	.057	.097	.147	.207	.278
		Noise Criteria	<15	<15	21	27	32	37	41
		Throw	7-12-22	13-19-28	19-24-35	22-27-39	25-31-44	27-33-48	29-36-51
3" Slot Width	1 Slot	Airflow, CFM/FT.	30	60	90	120	150	180	210
		Static Pressure	.008	.033	.074	.131	.205	.296	.403
		Noise Criteria	<15	<15	15	24	30	35	40
		Throw	3-6-15	10-14-22	14-19-27	17-23-32	19-25-35	22-27-39	24-29-42
	2 Slot	Airflow, CFM/FT.	60	120	180	240	300	360	420
		Static Pressure	.008	.033	.074	.131	.205	.296	.403
		Noise Criteria	<15	<15	18	27	33	38	43
		Throw	4-9-20	12-20-31	19-26-38	24-31-44	27-34-48	30-37-53	32-40-57

NC Correction Factors for Various Lengths

Length (ft.)	2	4	6	8	9	10	15
Supply	- 3	0	+ 2	+ 3	+ 4	+ 5	+ 8
Return	0	+ 3	+ 5	+ 6	+ 7	+ 8	+ 11

Throw Correction Factors for Various Lengths

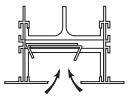
Length (ft.)	2	4	6	8	10	12
Multiplier	0.70	1.00	1.25	1.40	1.55	1.70

Performance Notes:

1. Data is based upon pressurized plenum application (non ducted) with no plenum effect for pressure or sound. Plenums should be sized to achieve equal velocity along the slot length. Keep duct inlet velocities below 700 fpm in order to maintain cataloged performance.
2. All pressures are in inches w.g..
3. Throw values are given at 150, 100 and 50 fpm terminal velocities under isothermal conditions.
4. Throw data is based on active sections 4 ft. (1219) long. For other lengths, use the correction factor table above.
5. Noise criteria values are based on 10 dB room absorption, re 10^{-12} watts, for a 4 ft. section. For other lengths, use the correction factor table above.
6. Throw values are based on a 1-way air pattern. For 2-way pattern, throw is determined from the 1 slot data at half the specified air volume.
7. Data derived from tests conducted in accordance with ANSI/ASHRAE Standard 70-2023.

PERFORMANCE DATA • RETURN AIR APPLICATIONS

MODELS: FLH (10, 15, 20, 25 & 30)



1" Slot Width	1 Slot	Airflow, CFM/FT.	20	35	50	65	80	95	110
		Static Pressure	.014	.043	.088	.149	.226	.318	.426
		Noise Criteria	<15	<18	26	33	39	45	48
	2 Slot	Airflow, CFM/FT.	40	70	100	130	160	190	220
		Static Pressure	.014	.043	.088	.149	.226	.318	.426
		Noise Criteria	<15	<19	28	36	42	48	51
1.5" Slot Width	1 Slot	Airflow, CFM/FT.	25	40	55	70	85	100	115
		Static Pressure	.012	.032	.059	.098	.143	.198	.261
		Noise Criteria	<15	<15	20	28	34	39	43
	2 Slot	Airflow, CFM/FT.	55	80	105	130	155	180	205
		Static Pressure	.015	.032	.054	.084	.119	.160	.208
		Noise Criteria	<15	<15	19	29	34	38	42
2" Slot Width	1 Slot	Airflow, CFM/FT.	25	45	65	85	105	125	145
		Static Pressure	.008	.023	.048	.083	.127	.179	.241
		Noise Criteria	<15	<15	22	27	35	41	46
	2 Slot	Airflow, CFM/FT.	45	85	125	165	205	245	285
		Static Pressure	.006	.021	.046	.080	.124	.177	.240
		Noise Criteria	<15	<15	22	29	37	43	48
2.5" Slot Width	1 Slot	Airflow, CFM/FT.	30	55	80	105	130	155	180
		Static Pressure	.010	.034	.074	.124	.190	.270	.364
		Noise Criteria	<15	<15	21	28	33	37	42
	2 Slot	Airflow, CFM/FT.	60	105	150	195	240	285	330
		Static Pressure	.010	.031	.063	.107	.162	.228	.306
		Noise Criteria	<15	<15	24	30	35	40	44
3" Slot Width	1 Slot	Airflow, CFM/FT.	30	60	90	120	150	180	210
		Static Pressure	.009	.036	.081	.144	.226	.326	.443
		Noise Criteria	<15	<15	18	27	33	38	43
	2 Slot	Airflow, CFM/FT.	60	120	180	240	300	360	420
		Static Pressure	.009	.036	.081	.144	.226	.326	.443
		Noise Criteria	<15	<15	22	30	36	41	46

NC Correction Factors for Various Lengths

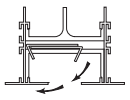
Length (ft.)	2	4	6	8	9	10	15
Return	- 3	0	+ 1	+ 2	+ 3	+ 5	+ 7

Performance Notes:

1. Data is based upon a ductless return application.
2. All pressures are in inches w.g..
3. Noise criteria values are based on 10 dB room absorption, re 10^{-12} watts, for a 4 ft. (1219) section. For other lengths, use the correction factor table above.
4. Data derived from tests conducted in accordance with ANSI/ASHRAE Standard 70-2023.

PERFORMANCE DATA • HORIZONTAL HIGH THROW SERIES

MODELS: FLH / FTH (10 &15) • 1 SLOT WITH NAILOR PLENUM

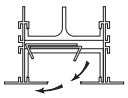


1" Slot Width	1 Slot 6" Dia. Inlet	2 Ft.	Airflow, CFM	25	50	75	100	125	150	175
			Total Pressure	.008	.034	.075	.132	.206	.297	.040
			Static Pressure	.007	.030	.065	.115	.180	.260	.350
			Noise Criteria	<15	<15	<15	20	29	36	40
			Throw	1-2-5	3-6-9	5-9-12	7-10-13	8-10-14	9-11-16	10-12-18
		4 Ft.	Airflow, CFM	40	80	120	160	200	240	280
			Total Pressure	.009	.031	.066	.117	.180	.264	.352
			Static Pressure	.006	.020	.042	.075	.115	.170	.225
			Noise Criteria	<15	<15	<15	17	25	32	38
			Throw	1-2-5	3-6-12	5-9-15	8-12-17	10-12-18	12-15-20	13-16-22
		5 Ft.	Airflow, CFM	50	100	150	200	250	300	350
			Total Pressure	.009	.036	.079	.140	.217	.316	.424
			Static Pressure	.005	.020	.042	.075	.115	.170	.225
			Noise Criteria	<15	<15	<15	18	26	33	38
			Throw	1-2-7	3-7-13	8-10-17	10-13-19	12-15-20	14-16-22	15-17-24
1" Slot Width	1 Slot 8" Dia. Inlet	2 Ft.	Airflow, CFM	50	75	100	125	150	175	200
			Total Pressure	.029	.068	.119	.188	.272	.358	.471
			Static Pressure	.028	.065	.114	.180	.260	.342	.450
			Noise Criteria	<15	<15	20	28	35	41	44
			Throw	2-5-9	5-9-11	7-10-14	8-11-15	9-12-18	10-12-19	11-13-20
		4 Ft.	Airflow, CFM	70	110	150	190	230	270	310
			Total Pressure	.016	.040	.075	.120	.176	.242	.319
			Static Pressure	.014	.034	.063	.101	.149	.205	.270
			Noise Criteria	<15	<15	<15	23	30	36	41
			Throw	2-4-10	6-8-14	7-11-17	9-13-19	10-15-22	13-16-24	15-18-26
		5 Ft.	Airflow, CFM	80	130	180	230	280	330	380
			Total Pressure	.007	.025	.056	.093	.142	.206	.283
			Static Pressure	.006	.020	.044	.072	.110	.160	.220
			Noise Criteria	<15	<15	<15	23	29	35	40
			Throw	2-5-11	6-9-15	8-12-18	9-14-20	11-15-22	13-17-24	14-18-26
1.5" Slot Width	1 Slot 6" Dia. Inlet	2 Ft.	Airflow, CFM	30	60	90	120	150	180	210
			Total Pressure	.002	.038	.088	.148	.246	.367	.471
			Static Pressure	.001	.032	.075	.125	.210	.315	.400
			Noise Criteria	<15	<15	<15	22	31	39	44
			Throw	1-4-7	4-7-11	6-9-13	8-10-15	10-13-17	11-14-19	12-15-20
		4 Ft.	Airflow, CFM	70	110	150	190	230	270	310
			Total Pressure	.021	.045	.089	.148	.206	.288	.376
			Static Pressure	.013	.025	.052	.089	.120	.170	.220
			Noise Criteria	<15	<15	<15	20	24	30	36
			Throw	2-5-11	5-8-15	8-12-17	10-13-19	12-15-20	13-16-21	14-17-23
		5 Ft.	Airflow, CFM	85	135	185	235	285	335	385
			Total Pressure	.013	.055	.101	.165	.247	.342	.440
			Static Pressure	.001	.025	.045	.075	.115	.160	.200
			Noise Criteria	<15	<15	<15	20	26	31	37
			Throw	2-5-11	5-19-15	8-13-18	11-15-21	12-17-23	14-18-25	15-20-27
1.5" Slot Width	1 Slot 8" Dia. Inlet	2 Ft.	Airflow, CFM	30	60	90	120	150	180	210
			Total Pressure	.002	.032	.076	.128	.222	.317	.428
			Static Pressure	.001	.030	.072	.120	.210	.300	.405
			Noise Criteria	<15	<15	<15	23	31	40	44
			Throw	1-4-7	4-7-11	7-9-13	8-12-15	10-13-17	11-14-18	12-15-19
		4 Ft.	Airflow, CFM	70	120	170	220	270	320	370
			Total Pressure	.015	.035	.075	.125	.207	.272	.380
			Static Pressure	.012	.027	.060	.100	.170	.220	.310
			Noise Criteria	<15	<15	<15	22	30	36	44
			Throw	2-5-11	6-9-15	9-13-18	12-15-21	14-17-23	15-19-25	16-20-26
		5 Ft.	Airflow, CFM	85	145	205	265	325	385	445
			Total Pressure	.016	.041	.084	.131	.204	.276	.401
			Static Pressure	.012	.03	.062	.095	.150	.200	.300
			Noise Criteria	<15	<15	<15	23	30	36	43
			Throw	2-5-11	6-10-16	9-13-20	12-17-23	15-19-25	16-20-27	17-21-29
1.5" Slot Width	1 Slot 10" Dia. Inlet	2 Ft.	Airflow, CFM	30	60	90	120	150	180	210
			Total Pressure	.002	.027	.065	.109	.189	.269	.364
			Static Pressure	.002	.026	.063	.106	.184	.263	.355
			Noise Criteria	<15	<15	<15	20	28	37	41
			Throw	1-4-7	4-7-11	7-9-13	8-12-15	10-13-17	11-14-18	12-15-19
		4 Ft.	Airflow, CFM	70	120	170	220	270	320	370
			Total Pressure	.013	.030	.064	.106	.176	.231	.323
			Static Pressure	.012	.027	.058	.096	.161	.210	.294
			Noise Criteria	<15	<15	<15	19	27	33	41
			Throw	2-5-11	6-9-15	9-13-18	12-15-21	14-17-23	15-19-25	16-20-26
		5 Ft.	Airflow, CFM	85	145	205	265	325	385	445
			Total Pressure	.014	.035	.071	.111	.173	.235	.341
			Static Pressure	.012	.030	.063	.097	.151	.204	.299
			Noise Criteria	<15	<15	<15	20	27	33	40
			Throw	2-5-11	6-10-16	9-13-20	12-17-23	15-19-25	16-20-27	17-21-29

For performance table notes, see page A37.

PERFORMANCE DATA • HORIZONTAL HIGH THROW SERIES

MODELS: FLH / FTH (20 & 25) • 1 SLOT WITH NAILOR PLENUM

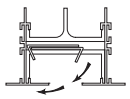


2" Slot Width	1 Slot 8" Dia. Inlet	2 Ft.	Airflow, CFM	40	80	120	160	200	240	280
			Total Pressure	.007	.028	.065	.115	.180	.259	.352
			Static Pressure	.006	.025	.057	.102	.159	.229	.312
			Noise Criteria	<15	<15	<15	17	26	31	38
			Throw	1-3-8	5-8-13	7-10-15	10-13-17	11-14-19	12-15-22	13-16-23
		4 Ft.	Airflow, CFM	100	150	200	250	300	350	400
			Total Pressure	.015	.034	.040	.094	.136	.185	.241
			Static Pressure	.010	.022	.040	.062	.089	.122	.159
			Noise Criteria	<15	<15	<15	15	22	30	37
			Throw	3-4-11	6-9-14	8-12-17	9-13-19	12-14-23	14-25-27	15-17-28
		5 Ft.	Airflow, CFM	125	180	235	290	345	400	455
			Total Pressure	.180	.037	.064	.097	.137	.184	.238
			Static Pressure	.010	.021	.035	.535	.076	.102	.132
			Noise Criteria	<15	<15	<15	22	29	34	39
			Throw	3-6-12	8-12-17	9-13-19	12-14-23	14-13-26	16-18-28	17-21-30
2" Slot Width	1 Slot 12" Oval Inlet	2 Ft.	Airflow, CFM	50	100	150	200	250	300	350
			Total Pressure	.007	.028	.064	.113	.177	.254	.346
			Static Pressure	.007	.027	.060	.108	.168	.242	.329
			Noise Criteria	<15	<15	<15	17	24	29	37
			Throw	2-5-10	5-8-12	6-10-14	8-12-17	9-13-19	10-14-22	13-16-25
		4 Ft.	Airflow, CFM	100	170	240	310	380	450	520
			Total Pressure	.008	.023	.045	.076	.114	.169	.213
			Static Pressure	.065	.019	.038	.063	.094	.132	.176
			Noise Criteria	<15	<15	<15	20	27	33	39
			Throw	3-6-12	7-11-15	9-13-19	11-15-23	14-17-27	15-19-30	16-21-34
		5 Ft.	Airflow, CFM	125	205	285	365	445	525	605
			Total Pressure	.009	.023	.045	.074	.109	.152	.202
			Static Pressure	.007	.018	.034	.056	.083	.115	.153
			Noise Criteria	<15	<15	<15	23	31	36	41
			Throw	3-7-15	7-11-19	10-14-24	13-16-25	15-19-30	16-21-32	21-25-34
2.5" Slot Width	1 Slot 10" Oval Inlet	2 Ft.	Airflow, CFM	100	145	190	235	280	325	370
			Total Pressure	.024	.05	.085	.131	.186	.25	.324
			Static Pressure	.045	.045	.077	.117	.167	.224	.291
			Noise Criteria	<15	<15	<15	22	29	35	40
			Throw	4-9-11	6-19-13	8-12-17	10-14-18	12-16-22	13-17-24	14-18-26
		4 Ft.	Airflow, CFM	140	220	300	380	460	540	620
			Total Pressure	.015	.037	.069	.111	.163	.225	.296
			Static Pressure	.010	.026	.048	.077	.112	.155	.204
			Noise Criteria	<15	<15	<15	25	33	40	45
			Throw	5-8-17	10-14-22	12-16-25	14-17-28	16-19-31	19-22-33	21-24-35
		5 Ft.	Airflow, CFM	150	240	330	420	510	600	690
			Total Pressure	.013	.034	.063	.103	.151	.209	.277
			Static Pressure	.002	.020	.037	.060	.088	.122	.162
			Noise Criteria	<15	<15	<15	23	31	38	43
			Throw	3-8-16	8-12-21	12-15-25	15-18-29	17-21-32	19-23-35	21-27-38
2.5" Slot Width	1 Slot 12" Oval Inlet	2 Ft.	Airflow, CFM	100	145	190	235	280	325	370
			Total Pressure	.021	.043	.074	.114	.161	.217	.282
			Static Pressure	.019	.041	.070	.106	.151	.204	.264
			Noise Criteria	<15	<15	<15	20	27	33	38
			Throw	4-9-11	6-19-13	8-12-17	10-14-18	12-16-22	13-17-24	14-18-26
		4 Ft.	Airflow, CFM	140	225	310	395	480	565	650
			Total Pressure	.012	.031	.059	.096	.142	.197	.261
			Static Pressure	.009	.024	.046	.075	.111	.154	.204
			Noise Criteria	<15	<15	15	23	31	38	43
			Throw	5-8-17	10-14-22	12-16-25	14-17-29	17-20-32	20-23-34	22-26-37
		5 Ft.	Airflow, CFM	150	250	350	450	550	650	750
			Total Pressure	.010	.028	.054	.090	.134	.188	.250
			Static Pressure	.007	.019	.038	.063	.094	.131	.174
			Noise Criteria	<15	<15	16	26	34	40	46
			Throw	3-8-16	8-12-21	13-16-26	16-19-31	18-22-33	20-25-37	22-28-39

For performance table notes, see page A37.

PERFORMANCE DATA • HORIZONTAL HIGH THROW SERIES

MODELS: FLH30 AND FTH30 • 1 SLOT WITH NAILOR PLENUM



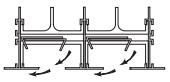
3" Slot Width	1 Slot 10" Oval Inlet	2 Ft.	**Airflow, CFM**	**125**	**170**	**215**	**260**	**305**	**350**	**395**
			Total Pressure	.030	.056	.894	.131	.180	.237	.302
			Static Pressure	.027	.049	.078	.115	.158	.208	.265
			Noise Criteria	<15	<15	<15	24	29	35	40
			Throw	7-11-16	9-13-19	11-15-21	13-17-23	15-18-25	16-19-28	17-20-31
		4 Ft.	**Airflow, CFM**	**200**	**275**	**350**	**425**	**500**	**575**	**650**
			Total Pressure	.027	.050	.081	.120	.166	.220	.281
			Static Pressure	.017	.032	.052	.076	.106	.140	.179
			Noise Criteria	<15	<15	18	22	28	34	40
			Throw	8-13-20	10-15-24	15-19-27	17-21-30	18-23-32	20-24-35	21-26-37
		5 Ft.	**Airflow, CFM**	**220**	**310**	**400**	**490**	**580**	**670**	**760**
			Total Pressure	.025	.040	.082	.123	.172	.230	.296
			Static Pressure	.013	.026	.043	.065	.091	.122	.157
			Noise Criteria	<15	<15	16	24	32	39	45
			Throw	8-12-21	12-17-25	15-20-29	18-23-32	20-24-35	21-26-37	23-28-40
3" Slot Width	1 Slot 12" Oval Inlet	2 Ft.	**Airflow, CFM**	**125**	**170**	**215**	**260**	**305**	**350**	**395**
			Total Pressure	.029	.053	.085	.124	.170	.224	.286
			Static Pressure	.026	.049	.078	.115	.158	.208	.265
			Noise Criteria	<15	<15	<15	18	25	31	36
			Throw	7-11-16	9-13-19	11-15-21	13-17-23	15-18-25	16-19-28	17-20-31
		4 Ft.	**Airflow, CFM**	**200**	**290**	**380**	**470**	**560**	**650**	**740**
			Total Pressure	.022	.047	.081	.123	.175	.236	.306
			Static Pressure	.017	.036	.061	.094	.133	.179	.232
			Noise Criteria	<15	<15	<15	22	29	36	41
			Throw	8-13-20	11-16-24	15-20-28	17-22-31	20-24-34	21-26-37	23-28-40
		5 Ft.	**Airflow, CFM**	**220**	**330**	**440**	**550**	**660**	**770**	**880**
			Total Pressure	.020	.044	.079	.123	.177	.241	.315
			Static Pressure	.013	.030	.053	.082	.118	.161	.210
			Noise Criteria	<15	<15	19	26	32	39	43
			Throw	8-12-21	11-14-26	14-16-30	17-20-34	20-25-37	22-27-39	24-29-42

Performance Notes:

1. Data is based upon FlowLine™ with Nailor engineered plenum (uninsulated) as a complete assembly.
2. All pressures are in inches w.g..
3. Throw values are given at 150, 100 and 50 fpm terminal velocities under isothermal conditions.
4. Noise criteria values are based on 10 dB room absorption, re 10^{-12} watts.
5. Throw values are based on a 1-way air pattern. For 2-way pattern, throw is determined from the 1 slot data at half the specified air volume.
6. Data derived from tests conducted in accordance with ANSI/ASHRAE Standard 70-2023.

PERFORMANCE DATA • HORIZONTAL HIGH THROW SERIES

MODELS: FLH / FTH (10 & 15) • 2 SLOT WITH NAILOR PLENUM

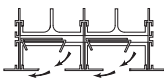


1" Slot Width	2 Slot 8" Dia. Inlet	2 Ft.	Airflow, CFM	80	120	160	200	240	280	320
			Total Pressure	.016	.036	.064	.101	.145	.198	.258
			Static Pressure	.018	.041	.072	.080	.115	.157	.205
			Noise Criteria	<15	<15	<15	23	29	35	40
			Throw	3-6-12	6-10-16	9-13-18	11-14-20	13-16-22	14-17-23	15-18-25
		4 Ft.	Airflow, CFM	160	230	300	370	440	510	580
			Total Pressure	.025	.053	.091	.138	.196	.263	.340
			Static Pressure	.013	.026	.045	.068	.097	.130	.168
			Noise Criteria	<15	<15	17	24	31	36	41
			Throw	5-8-17	8-12-21	10-16-24	13-18-26	16-20-30	17-22-32	18-24-34
		5 Ft.	Airflow, CFM	200	280	360	440	520	600	680
			Total Pressure	.033	.065	.108	.161	.225	.300	.385
			Static Pressure	.013	.025	.041	.062	.087	.115	.148
			Noise Criteria	<15	<15	19	26	32	37	42
			Throw	5-10-20	9-14-24	12-17-26	15-20-30	17-22-33	19-24-35	22-26-38
1" Slot Width	2 Slot 10" Dia. Inlet	2 Ft.	Airflow, CFM	80	130	180	230	280	330	380
			Total Pressure	.014	.038	.073	.119	.176	.244	.324
			Static Pressure	.013	.034	.065	.106	.157	.218	.289
			Noise Criteria	<15	<15	19	28	35	41	47
			Throw	3-6-13	7-11-16	10-14-19	12-15-22	13-17-24	14-18-26	15-19-28
		4 Ft.	Airflow, CFM	160	240	320	400	480	560	640
			Total Pressure	.019	.043	.076	.118	.170	.232	.303
			Static Pressure	.013	.029	.051	.080	.115	.157	.205
			Noise Criteria	<15	<15	18	26	33	39	44
			Throw	4-9-18	9-14-22	12-18-26	15-20-29	17-22-32	20-24-34	19-25-35
		5 Ft.	Airflow, CFM	200	295	390	485	580	675	770
			Total Pressure	.022	.048	.085	.132	.189	.256	.333
			Static Pressure	.013	.028	.049	.075	.108	.146	.190
			Noise Criteria	<15	<15	20	28	34	40	45
			Throw	5-19-19	10-14-24	13-19-27	17-22-32	20-24-35	21-25-38	22-27-39
1.5" Slot Width	2 Slot 8" Dia. Inlet	2 Ft.	Airflow, CFM	120	160	200	240	280	320	360
			Total Pressure	.036	.064	.101	.145	.198	.258	.327
			Static Pressure	.029	.051	.080	.115	.157	.205	.259
			Noise Criteria	<15	<15	19	26	32	37	41
			Throw	5-19-16	8-12-18	11-12-18	13-16-21	14-17-24	15-18-26	15-19-27
		4 Ft.	Airflow, CFM	240	310	380	450	520	590	660
			Total Pressure	.058	.097	.146	.205	.274	.352	.441
			Static Pressure	.029	.048	.072	.101	.135	.174	.218
			Noise Criteria	<15	<15	21	27	33	37	42
			Throw	9-14-22	12-17-25	14-20-28	16-22-31	17-23-33	19-25-35	21-26-37
		5 Ft.	Airflow, CFM	300	370	440	510	580	650	720
			Total Pressure	.075	.114	.161	.217	.281	.352	.432
			Static Pressure	.029	.044	.062	.083	.108	.135	.166
			Noise Criteria	<15	<15	22	27	32	36	40
			Throw	10-15-25	13-19-28	15-21-30	16-22-32	18-23-33	19-24-34	21-27-38
1.5" Slot Width	2 Slot 12" Dia. Inlet	2 Ft.	Airflow, CFM	120	170	220	270	320	370	420
			Total Pressure	.031	.062	.103	.156	.219	.293	.377
			Static Pressure	.029	.058	.097	.146	.205	.274	.353
			Noise Criteria	<15	<15	21	29	35	40	45
			Throw	5-9-16	9-13-19	12-14-21	14-16-24	15-18-26	15-19-28	17-21-29
		4 Ft.	Airflow, CFM	240	320	400	480	560	640	720
			Total Pressure	.037	.065	.102	.146	.199	.260	.329
			Static Pressure	.029	.051	.080	.115	.157	.205	.259
			Noise Criteria	<15	<15	22	26	32	37	41
			Throw	9-14-22	12-18-26	15-20-29	17-22-32	18-24-33	20-26-36	22-27-39
		5 Ft.	Airflow, CFM	300	400	500	600	700	800	900
			Total Pressure	.041	.073	.114	.163	.222	.291	.368
			Static Pressure	.029	.051	.080	.115	.157	.205	.259
			Noise Criteria	<15	<15	23	30	35	40	45
			Throw	10-15-25	14-20-29	16-22-32	19-24-35	22-27-38	23-28-41	24-30-43

For performance table notes, see page A40.

PERFORMANCE DATA • HORIZONTAL HIGH THROW SERIES

MODELS: FLH / FTH (20 & 25) • 2 SLOT WITH NAILOR PLENUM

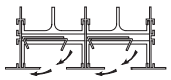


2" Slot Width	2 Slot 8" Dia. Inlet	2 Ft.	Airflow, CFM	120	165	210	255	300	345	390
			Total Pressure	.023	.043	.069	.101	.141	.186	.238
			Static Pressure	.015	.029	.047	.068	.095	.125	.160
			Noise Criteria	<15	<15	16	24	29	34	38
			Throw	5-8-14	7-11-16	9-14-19	11-14-21	13-16-23	14-17-24	14-18-25
		4 Ft.	Airflow, CFM	240	300	360	420	480	540	600
			Total Pressure	.051	.079	.114	.156	.204	.258	.318
			Static Pressure	.021	.034	.048	.066	.086	.108	.134
			Noise Criteria	<15	17	23	29	34	39	43
			Throw	6-11-20	9-14-23	11-16-24	13-19-26	14-20-29	16-22-30	18-23-32
		5 Ft.	Airflow, CFM	260	325	390	455	520	585	650
			Total Pressure	.053	.082	.118	.161	.211	.267	.329
			Static Pressure	.018	.028	.040	.055	.072	.092	.113
			Noise Criteria	<15	16	22	29	34	38	42
			Throw	5-11-21	8-14-23	11-16-25	13-18-28	14-21-30	16-23-32	17-23-33
2" Slot Width	2 Slot 12" Dia. Inlet	2 Ft.	Airflow, CFM	120	195	270	345	420	495	570
			Total Pressure	.009	.024	.046	.075	.111	.155	.205
			Static Pressure	.007	.020	.039	.063	.094	.130	.172
			Noise Criteria	<15	<15	<15	22	28	35	41
			Throw	5-8-14	8-13-18	12-15-22	14-17-24	15-19-26	16-21-29	18-20-31
		4 Ft.	Airflow, CFM	240	330	420	510	600	690	780
			Total Pressure	.019	.037	.060	.088	.122	.161	.206
			Static Pressure	.013	.026	.042	.062	.086	.113	.145
			Noise Criteria	<15	<15	17	24	30	35	41
			Throw	6-11-20	10-15-23	13-19-26	15-21-29	18-23-32	20-24-34	21-25-36
		5 Ft.	Airflow, CFM	280	380	480	580	680	780	880
			Total Pressure	.022	.040	.065	.094	.130	.172	.218
			Static Pressure	.014	.026	.041	.060	.083	.110	.140
			Noise Criteria	<15	<15	18	25	31	36	41
			Throw	5-12-22	10-15-25	13-20-29	15-22-32	18-24-34	21-25-36	23-27-39
2.5" Slot Width	2 Slot 10" Dia. Inlet	2 Ft.	Airflow, CFM	80	160	240	320	400	480	560
			Total Pressure	.005	.019	.043	.078	.122	.175	.238
			Static Pressure	.003	.014	.032	.057	.088	.127	.173
			Noise Criteria	<15	<15	<15	18	27	35	41
			Throw	2-4-10	6-10-16	10-14-20	13-16-23	15-18-26	16-20-29	18-22-31
		4 Ft.	Airflow, CFM	160	280	400	520	640	760	880
			Total Pressure	.011	.034	.070	.118	.178	.251	.336
			Static Pressure	.005	.018	.036	.061	.092	.130	.174
			Noise Criteria	<15	<15	<15	22	31	38	44
			Throw	3-15-14	7-12-22	12-17-26	15-21-30	18-23-32	21-25-36	23-27-39
		5 Ft.	Airflow, CFM	200	335	470	605	740	875	1010
			Total Pressure	.014	.040	.079	.130	.194	.271	.361
			Static Pressure	.005	.016	.032	.054	.079	.110	.147
			Noise Criteria	<15	<15	<15	23	31	38	44
			Throw	3-5-15	7-13-23	12-18-28	15-23-32	19-25-35	23-27-29	23-29-41
2.5" Slot Width	2 Slot 12" Dia. Inlet	2 Ft.	Airflow, CFM	80	170	260	350	440	530	620
			Total Pressure	.003	.015	.034	.061	.097	.140	.192
			Static Pressure	.002	.012	.027	.049	.077	.112	.153
			Noise Criteria	<15	<15	<15	17	27	34	41
			Throw	2-4-10	7-10-17	11-14-21	14-17-24	15-19-27	17-21-31	19-23-32
		4 Ft.	Airflow, CFM	160	295	430	595	700	835	970
			Total Pressure	.007	.024	.051	.088	.136	.193	.260
			Static Pressure	.004	.016	.033	.056	.086	.122	.165
			Noise Criteria	<15	<15	<15	21	29	37	43
			Throw	3-5-14	8-13-23	13-19-27	16-22-31	20-24-34	22-26-38	23-29-41
		5 Ft.	Airflow, CFM	200	350	500	650	800	950	1100
			Total Pressure	.010	.029	.059	.100	.151	.212	.284
			Static Pressure	.005	.017	.033	.057	.086	.121	.162
			Noise Criteria	<15	<15	<15	21	29	37	43
			Throw	3-5-15	8-14-24	13-19-29	17-23-33	21-26-37	23-28-40	25-31-43

For performance table notes, see page A40.

PERFORMANCE DATA • HORIZONTAL HIGH THROW SERIES

MODELS: FLH30 AND FTH30 • 2 SLOT WITH NAILOR PLENUM



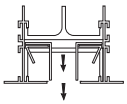
3" Slot Width	2 Slot 10" Dia. Inlet	2 Ft.	**Airflow, CFM**	**80**	**180**	**280**	**380**	**480**	**580**	**680**
			Total Pressure	.004	.022	.053	.097	.155	.226	.311
			Static Pressure	.003	.015	.036	.067	.106	.156	.214
			Noise Criteria	<15	<15	<15	17	28	36	43
			Throw	1-3-9	6-10-17	11-15-22	14-18-25	16-20-29	18-22-32	20-24-34
		4 Ft.	**Airflow, CFM**	**150**	**300**	**450**	**600**	**750**	**900**	**1050**
			Total Pressure	.009	.035	.080	.143	.222	.321	.436
			Static Pressure	.004	.016	.038	.067	.104	.151	.205
			Noise Criteria	<15	<15	<15	19	29	38	45
			Throw	2-4-12	6-12-23	12-18-28	16-23-32	20-25-35	23-28-39	24-30-42
		5 Ft.	**Airflow, CFM**	**180**	**350**	**520**	**690**	**860**	**1030**	**1200**
			Total Pressure	.011	.042	.092	.162	.251	.360	.489
			Static Pressure	.004	.016	.035	.062	.096	.138	.186
			Noise Criteria	<15	<15	<15	19	29	38	45
			Throw	2-4-13	6-13-24	13-19-30	16-24-34	21-27-38	24-30-41	26-32-45
3" Slot Width	2 Slot 12" Dia. Inlet	2 Ft.	**Airflow, CFM**	**80**	**180**	**280**	**380**	**480**	**580**	**680**
			Total Pressure	.004	.017	.042	.077	.124	.180	.248
			Static Pressure	.003	.014	.034	.063	.100	.146	.201
			Noise Criteria	<15	<15	<15	<15	23	32	39
			Throw	1-3-9	6-10-17	11-15-22	14-18-25	16-20-29	18-22-32	20-24-34
		4 Ft.	**Airflow, CFM**	**150**	**310**	**470**	**630**	**790**	**950**	**1110**
			Total Pressure	.006	.024	.056	.100	.156	.226	.309
			Static Pressure	.003	.014	.033	.059	.093	.135	.184
			Noise Criteria	<15	<15	<15	23	29	35	42
			Throw	2-4-12	7-13-23	13-19-28	17-23-32	21-26-36	23-28-40	25-31-43
		5 Ft.	**Airflow, CFM**	**180**	**360**	**540**	**720**	**900**	**1080**	**1260**
			Total Pressure	.007	.027	.060	.108	.169	.244	.331
			Static Pressure	.003	.014	.031	.056	.087	.126	.170
			Noise Criteria	<15	<15	16	24	30	35	42
			Throw	2-4-13	6-13-24	13-19-30	17-24-35	22-28-39	24-30-42	26-32-46

Performance Notes:

1. Data is based upon FlowLine™ with Nailor engineered plenum (uninsulated) as a complete assembly.
2. All pressures are in inches w.g..
3. Throw values are given at 150, 100 and 50 fpm terminal velocities under isothermal conditions.
4. Noise criteria values are based on 10 dB room absorption, re 10^{-12} watts.
5. Throw values are based on a 1-way air pattern. For 2-way pattern, throw is determined from the 1 slot data at half the specified air volume.
6. Data derived from tests conducted in accordance with ANSI/ASHRAE Standard 70-2023.

PERFORMANCE DATA • VERTICAL JET THROW SERIES

MODELS: FLV (10, 15, 20, 25 & 30) • CONTINUOUS PRESSURIZED PLENUM



1" Slot Width	1 Slot	Airflow, CFM/FT.	20	40	60	80	100	120	140
		Static Pressure	.005	.018	.041	.074	.114	.164	.223
		Noise Criteria	—	—	<15	20	24	30	35
		Throw	1-3-10	4-10-21	10-15-29	14-21-33	18-26-37	21-19-41	24-31-44
	2 Slot	Airflow, CFM/FT.	40	85	130	175	220	265	310
		Static Pressure	.005	.024	.056	.102	.161	.234	.320
		Noise Criteria	—	<15	20	27	32	37	42
		Throw	2-4-17	9-18-32	19-28-40	25-32-45	30-36-51	32-40-56	35-43-61
1.5" Slot Width	1 Slot	Airflow, CFM/FT.	30	60	90	120	150	180	210
		Static Pressure	.005	.020	.045	.080	.125	.180	.245
		Noise Criteria	—	—	<15	20	26	32	37
		Throw	1-3-12	6-12-24	12-19-34	17-24-40	21-31-44	24-34-48	29-36-52
	2 Slot	Airflow, CFM/FT.	60	120	180	240	300	360	420
		Static Pressure	.006	.023	.052	.093	.145	.209	.285
		Noise Criteria	—	<15	16	24	31	37	43
		Throw	2-6-20	9-20-36	20-31-44	28-36-51	33-41-57	36-44-63	39-47-67
2" Slot Width	1 Slot	Airflow, CFM/FT.	35	75	115	155	195	235	275
		Static Pressure	.004	.019	.044	.080	.126	.183	.251
		Noise Criteria	<15	15	21	25	29	34	39
		Throw	1-2-8	4-9-20	9-15-29	14-21-33	18-26-37	21-29-41	25-31-44
	2 Slot	Airflow, CFM/FT.	70	150	230	310	390	470	550
		Static Pressure	.005	.022	.051	.092	.146	.212	.291
		Noise Criteria	<15	19	25	29	34	39	44
		Throw	2-3-13	.7-14-30	15-26-37	23-31-43	28-34-18	31-37-54	33-41-58
2.5" Slot Width	1 Slot	Airflow, CFM/FT.	40	95	150	205	260	315	370
		Static Pressure	.004	.020	.050	.094	.151	.222	.306
		Noise Criteria	<15	<15	16	24	29	35	48
		Throw	1-2-7	4-10-22	11-18-31	16-25-37	20-30-42	25-32-42	29-36-50
	2 Slot	Airflow, CFM/FT.	80	190	300	410	520	630	740
		Static Pressure	.004	.023	.058	.108	.174	.256	.353
		Noise Criteria	<15	<15	20	26	35	41	46
		Throw	1-3-11	7-16-33	18-29-42	26-34-48	31-38-54	35-43-60	37-46-65
3" Slot Width	1 Slot	Airflow, CFM/FT.	50	115	180	245	310	375	440
		Static Pressure	.004	.021	.052	.097	.155	.226	.312
		Noise Criteria	<15	<15	16	26	32	37	42
		Throw	1-2-8	5-11-25	12-20-34	17-26-40	22-31-45	26-35-49	31-37-54
	2 Slot	Airflow, CFM/FT.	100	230	360	490	620	750	880
		Static Pressure	.005	.025	.060	.112	.179	.261	.360
		Noise Criteria	<15	<15	21	29	36	41	45
		Throw	2-3-13	8-17-36	19-31-44	29-37-52	33-41-58	37-45-64	40-49-70

NC Correction Factors for Various Lengths

Length (ft.)	2	4	6	8	9	10	15
Supply	- 3	0	+ 2	+ 3	+ 4	+ 5	+ 8
Return	0	+ 3	+ 5	+ 6	+ 7	+ 8	+ 11

Throw Correction Factors for Various Lengths

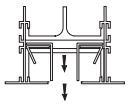
Length (ft.)	2	4	6	8	10	12
Multiplier	0.80	1.00	1.20	1.30	1.40	1.50

Performance Notes:

1. Data is based upon pressurized plenum application (non ducted) with no plenum effect for pressure or sound. Plenums should be sized to achieve equal velocity along the slot length. Keep duct inlet velocities below 700 fpm in order to maintain cataloged performance.
2. All pressures are in inches w.g..
3. Throw values are given at 150, 100 and 50 fpm terminal velocities under isothermal conditions.
4. Throw data is based on active sections 4 ft. (1219) long. For other lengths, use the correction factor table above.
5. Throw values are based on pattern controller set 100% open.
6. Noise criteria values are based on 10 dB room absorption, re 10^{-12} watts, for a 4 ft. section. For other lengths, use the correction factor table above.
7. Data derived from tests conducted in accordance with ANSI/ASHRAE Standard 70-2023.

PERFORMANCE DATA • VERTICAL JET THROW SERIES

MODELS: FLV / FTV (10 & 15) • 1 SLOT WITH NAILOR PLENUM

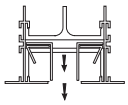


1" Slot Width	1 Slot 8" Dia. Inlet	2 Ft.	Airflow, CFM	50	95	140	185	230	275	320
			Total Pressure	.010	.033	.073	.127	.197	.281	.381
			Static Pressure	.007	.029	.062	.109	.168	.241	.325
			Noise Criteria	<15	<15	17	26	33	39	44
			Throw	2-3-10	7-9-19	9-14-24	12-19-28	15-22-31	18-24-34	21-26-36
		4 Ft.	Airflow, CFM	100	175	250	325	400	475	550
			Total Pressure	.018	.056	.113	.190	.289	.408	.547
			Static Pressure	.013	.039	.079	.133	.201	.285	.381
			Noise Criteria	<15	<15	20	29	35	41	46
			Throw	2-4-13	6-11-23	11-17-30	14-21-34	18-26-37	21-29-41	24-31-44
		5 Ft.	Airflow, CFM	110	195	280	365	450	535	620
			Total Pressure	.019	.060	.124	.212	.322	.455	.611
			Static Pressure	.013	.040	.081	.139	.211	.297	.400
			Noise Criteria	<15	<15	21	30	36	42	47
			Throw	1-3-12	6-11-22	10-17-31	14-21-35	18-25-39	21-30-42	23-32-45
1" Slot Width	1 Slot 10" Oval Inlet	2 Ft.	Airflow, CFM	50	95	140	185	230	275	320
			Total Pressure	.006	.022	.049	.087	.134	.192	.259
			Static Pressure	.005	.020	.045	.079	.122	.174	.236
			Noise Criteria	<15	<15	15	23	30	35	40
			Throw	2-3-10	7-9-19	9-14-24	12-19-28	15-22-31	18-24-34	21-26-36
		4 Ft.	Airflow, CFM	100	180	260	340	420	500	580
			Total Pressure	.011	.036	.075	.128	.196	.278	.373
			Static Pressure	.009	.029	.060	.103	.156	.221	.299
			Noise Criteria	<15	<15	17	24	31	37	42
			Throw	2-4-13	7-12-23	11-17-30	14-22-34	18-28-39	22-30-42	25-32-45
		5 Ft.	Airflow, CFM	110	210	310	410	510	610	710
			Total Pressure	.011	.040	.087	.152	.235	.337	.456
			Static Pressure	.009	.030	.065	.114	.177	.256	.342
			Noise Criteria	<15	<15	17	26	33	39	44
			Throw	1-3-12	6-12-24	12-18-32	15-23-37	20-29-41	23-32-45	28-34-48
1" Slot Width	1 Slot 12" Oval Inlet	2 Ft.	Airflow, CFM	50	95	140	185	230	275	320
			Total Pressure	.004	.017	.037	.064	.100	.142	.194
			Static Pressure	.004	.016	.035	.061	.094	.135	.182
			Noise Criteria	<15	<15	<15	20	27	32	37
			Throw	2-3-10	7-9-19	9-14-24	12-19-28	15-22-31	18-24-34	21-26-36
		4 Ft.	Airflow, CFM	100	190	280	370	460	550	640
			Total Pressure	.009	.032	.068	.120	.185	.264	.358
			Static Pressure	.007	.028	.060	.105	.163	.232	.315
			Noise Criteria	<15	<15	18	26	33	38	43
			Throw	2-4-13	7-12-24	12-18-31	17-24-36	20-29-41	24-31-44	28-33-47
		5 Ft.	Airflow, CFM	110	220	330	440	550	660	770
			Total Pressure	.007	.016	.035	.061	.094	.135	.182
			Static Pressure	.006	.026	.057	.101	.157	.227	.308
			Noise Criteria	<15	<15	17	24	31	37	42
			Throw	1-3-12	7-12-25	12-19-33	17-25-39	21-31-43	25-33-47	30-36-51
1.5" Slot Width	1 Slot 8" Dia. Inlet	2 Ft.	Airflow, CFM	60	110	160	210	260	310	360
			Total Pressure	.009	.029	.060	.104	.159	.226	.305
			Static Pressure	.006	.021	.046	.079	.122	.173	.234
			Noise Criteria	<15	<15	<15	20	27	33	38
			Throw	1-2-9	4-9-18	9-12-24	11-17-29	13-20-32	17-24-34	19-26-37
		4 Ft.	Airflow, CFM	120	200	280	360	440	520	600
			Total Pressure	.020	.057	.111	.184	.276	.385	.513
			Static Pressure	.013	.035	.068	.113	.170	.236	.316
			Noise Criteria	<15	<15	19	27	33	39	43
			Throw	1-3-12	3-9-21	8-14-29	12-19-34	15-23-37	18-26-41	21-31-44
		5 Ft.	Airflow, CFM	140	220	300	380	460	540	620
			Total Pressure	.026	.062	.116	.186	.272	.376	.494
			Static Pressure	.015	.035	.066	.107	.156	.215	.285
			Noise Criteria	<15	<15	19	26	32	38	42
			Throw	1-3-12	3-8-20	6-13-28	10-18-34	14-21-37	17-24-11	19-29-43

For performance table notes, see page A44.

PERFORMANCE DATA • VERTICAL JET THROW SERIES

MODELS: FLV / FTV (15 & 20) • 1 SLOT WITH NAILOR PLENUM

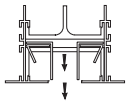


1.5" Slot Width	1 Slot 10" Oval Inlet	2 Ft.	Airflow, CFM	60	125	190	255	320	385	450
			Total Pressure	.005	.025	.057	.103	.163	.235	.321
			Static Pressure	.005	.021	.049	.089	.139	.201	.275
			Noise Criteria	<15	<15	<15	23	30	36	41
			Throw	1-2-9	6-10-20	10-14-26	13-20-31	17-24-35	20-28-39	23-30-39
		4 Ft.	Airflow, CFM	120	240	360	480	600	720	840
			Total Pressure	.012	.045	.102	.181	.281	.406	.552
			Static Pressure	.009	.032	.073	.128	.201	.290	.394
			Noise Criteria	<15	<15	19	28	35	41	46
			Throw	1-3-12	6-12-24	12-19-34	17-24-40	21-31-44	24-34-48	29-36-52
		5 Ft.	Airflow, CFM	140	280	420	560	700	840	980
			Total Pressure	.014	.054	.121	.215	.336	.484	.659
			Static Pressure	.009	.036	.081	.144	.226	.325	.443
			Noise Criteria	<15	<15	21	30	37	43	48
			Throw	1-3-12	6-12-25	12-19-35	17-25-41	21-32-46	25-35-51	30-39-54
1.5" Slot Width	1 Slot 12" Oval Inlet	2 Ft.	Airflow, CFM	60	125	190	255	320	385	450
			Total Pressure	.004	.019	.044	.078	.123	.179	.244
			Static Pressure	.004	.017	.040	.072	.112	.163	.221
			Noise Criteria	<15	<15	<15	20	28	34	39
			Throw	1-2-9	6-10-20	10-14-26	13-20-31	17-24-35	20-28-39	23-30-42
		4 Ft.	Airflow, CFM	120	240	360	480	600	720	840
			Total Pressure	.007	.031	.070	.123	.192	.276	.376
			Static Pressure	.006	.025	.055	.097	.153	.220	.300
			Noise Criteria	<15	<15	16	24	31	37	42
			Throw	1-3-12	6-12-24	12-19-34	17-24-40	21-31-44	24-34-48	29-36-52
		5 Ft.	Airflow, CFM	140	280	420	560	700	840	980
			Total Pressure	.009	.035	.079	.141	.220	.318	.432
			Static Pressure	.006	.027	.060	.107	.168	.242	.328
			Noise Criteria	<15	<15	16	25	32	38	43
			Throw	1-3-12	6-12-15	12-19-35	17-25-41	21-32-46	25-35-51	30-39-54
2" Slot Width	1 Slot 8" Dia. Inlet	2 Ft.	Airflow, CFM	70	140	210	280	350	420	490
			Total Pressure	.010	.036	.082	.146	.228	.328	.447
			Static Pressure	.006	.026	.058	.103	.161	.232	.316
			Noise Criteria	<15	<15	16	24	32	38	42
			Throw	1-2-7	3-7-14	7-11-21	9-14-25	12-18-27	14-21-30	17-23-32
		4 Ft.	Airflow, CFM	140	220	300	380	460	540	620
			Total Pressure	.025	.060	.111	.178	.261	.36	.474
			Static Pressure	.014	.033	.062	.098	.144	.200	.263
			Noise Criteria	<15	<15	18	25	31	37	41
			Throw	1-2-8	3-5-14	4-9-20	7-13-26	9-15-29	12-18-31	14-21-33
		5 Ft.	Airflow, CFM	150	250	350	450	550	650	750
			Total Pressure	.026	.071	.138	.227	.339	.474	.631
			Static Pressure	.013	.036	.071	.117	.174	.243	.323
			Noise Criteria	<15	<15	21	29	35	41	45
			Throw	1-2-6	2-4-14	3-9-20	6-14-26	9-16-31	13-20-33	14-22-36
2" Slot Width	1 Slot 10" Oval Inlet	2 Ft.	Airflow, CFM	70	150	230	310	390	470	550
			Total Pressure	.005	.027	.062	.112	.179	.259	.354
			Static Pressure	.004	.021	.050	.091	.144	.210	.287
			Noise Criteria	<15	<15	<15	23	30	36	41
			Throw	1-2-7	3-8-15	8-12-22	10-16-26	14-20-29	16-22-31	19-24-34
		4 Ft.	Airflow, CFM	140	265	390	515	640	765	890
			Total Pressure	.013	.047	.103	.179	.276	.394	.534
			Static Pressure	.009	.031	.068	.119	.184	.263	.356
			Noise Criteria	<15	<15	18	27	34	40	45
			Throw	1-2-8	3-7-18	7-13-26	12-17-31	14-21-34	17-26-37	20-28-40
		5 Ft.	Airflow, CFM	150	300	450	600	750	900	1050
			Total Pressure	.013	.054	.122	.212	.331	.477	.649
			Static Pressure	.009	.033	.074	.132	.205	.295	.401
			Noise Criteria	<15	<15	20	29	36	42	47
			Throw	1-2-6	3-6-18	6-14-26	11-18-31	14-22-36	18-26-39	20-30-42

For performance table notes, see page A44.

PERFORMANCE DATA • VERTICAL JET THROW SERIES

MODELS: FLV / FTV (20, 25 & 30) • 1 SLOT WITH NAILOR PLENUM



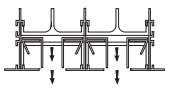
2" Slot Width	1 Slot 12" Oval Inlet	2 Ft.	Airflow, CFM	70	160	250	340	430	520	610
			Total Pressure	.004	.022	.055	.102	.162	.236	.325
			Static Pressure	.004	.019	.048	.089	.141	.208	.286
			Noise Criteria	<15	<15	<15	23	30	37	42
			Throw	1-2-7	4-9-16	9-13-23	12-17-27	14-21-30	18-24-33	20-26-36
		4 Ft.	Airflow, CFM	140	290	440	590	740	890	1040
			Total Pressure	.009	.035	.082	.148	.232	.335	.458
			Static Pressure	.006	.027	.061	.109	.172	.249	.340
			Noise Criteria	<15	<15	16	26	33	39	44
			Throw	1-2-8	3-9-20	9-14-28	14-20-32	16-25-37	20-28-40	23-31-43
		5 Ft.	Airflow, CFM	150	330	510	690	870	1050	1230
			Total Pressure	.009	.040	.096	.175	.279	.406	.557
			Static Pressure	.005	.028	.067	.124	.197	.289	.394
			Noise Criteria	<15	<15	18	28	35	41	46
			Throw	1-2-6	3-8-20	8-15-29	14-20-34	17-26-38	20-30-42	25-32-46
2.5" Slot Width	1 Slot 12" Oval Inlet	2 Ft.	Airflow, CFM	80	190	300	410	520	630	740
			Total Pressure	.004	.025	.061	.114	.185	.271	.375
			Static Pressure	.003	.020	.051	.096	.155	.228	.315
			Noise Criteria	<15	<15	<15	24	31	38	43
			Throw	1-2-6	4-9-17	9-14-25	12-19-29	15-23-32	19-26-36	22-27-38
		4 Ft.	Airflow, CFM	150	335	520	705	890	1075	1260
			Total Pressure	.009	.042	.100	.183	.292	.426	.584
			Static Pressure	.005	.029	.071	.129	.207	.301	.413
			Noise Criteria	<15	<15	19	28	36	42	47
			Throw	1-2-6	3-8-20	9-15-30	14-21-35	18-26-39	21-30-43	25-32-46
		5 Ft.	Airflow, CFM	160	370	580	790	1000	1210	1420
			Total Pressure	.009	.044	.108	.200	.320	.469	.646
			Static Pressure	.005	.029	.072	.133	.212	.310	.428
			Noise Criteria	<15	<15	19	29	37	43	48
			Throw	1-1-5	3-7-20	7-15-31	14-20-36	17-26-40	21-31-44	25-34-48
3" Slot Width	1 Slot 14" Oval Inlet	2 Ft.	Airflow, CFM	100	225	350	475	600	725	850
			Total Pressure	.004	.022	.055	.102	.162	.236	.325
			Static Pressure	.004	.020	.048	.088	.141	.205	.282
			Noise Criteria	<15	<15	<15	22	30	36	41
			Throw	1-2-7	4-9-18	9-14-26	13-20-31	16-24-34	20-26-37	23-29-40
		4 Ft.	Airflow, CFM	200	400	600	800	1000	1200	1400
			Total Pressure	.010	.036	.082	.146	.228	.328	.446
			Static Pressure	.006	.027	.061	.108	.169	.244	.333
			Noise Criteria	<15	<15	<15	26	33	39	44
			Throw	1-2-8	3-8-21	8-16-31	14-21-36	18-26-40	21-31-44	25-33-48
		5 Ft.	Airflow, CFM	240	460	680	900	1120	1340	1560
			Total Pressure	.012	.042	.091	.159	.247	.354	.480
			Static Pressure	.007	.030	.064	.112	.174	.249	.338
			Noise Criteria	<15	<15	18	27	34	49	44
			Throw	1-2-8	3-8-21	7-16-32	13-21-37	18-26-42	21-31-45	25-35-48

Performance Notes:

1. Data is based upon FlowLine™ with Nailor engineered plenum (uninsulated) as a complete assembly.
2. All pressures are in inches w.g..
3. Throw values are given at 150, 100 and 50 fpm terminal velocities under isothermal conditions.
4. Noise criteria values are based on 10 dB room absorption, re 10^{-12} watts.
5. Throw values are based on pattern controller set 100% open.
6. Data derived from tests conducted in accordance with ANSI/ASHRAE Standard 70-2023.

PERFORMANCE DATA • VERTICAL JET THROW SERIES

MODELS: FLV / FTV (10 & 15) • 2 SLOT WITH NAILOR PLENUM

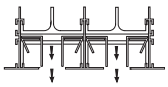


1" Slot Width	2 Slot 8" Dia. Inlet	2 Ft.	Airflow, CFM	80	155	230	305	380	455	530
			Total Pressure	.012	.045	.098	.173	.269	.385	.523
			Static Pressure	.009	.032	.070	.122	.189	.272	.369
			Noise Criteria	<15	<15	18	27	34	40	45
			Throw	2-4-13	7-12-23	12-19-29	12-23-33	21-26-36	23-29-40	25-31-43
		4 Ft.	Airflow, CFM	160	260	360	460	560	660	760
			Total Pressure	.031	.083	.159	.261	.386	.537	.712
			Static Pressure	.017	.046	.089	.144	.215	.299	.396
			Noise Criteria	<15	<15	24	31	38	43	48
			Throw	2-4-17	6-12-28	10-29-33	17-24-37	20-29-41	23-31-44	26-34-47
		5 Ft.	Airflow, CFM	200	300	400	500	600	700	800
			Total Pressure	.045	.101	.180	.280	.404	.550	.718
			Static Pressure	.022	.051	.092	.143	.207	.281	.368
			Noise Criteria	<15	<15	25	32	38	43	47
			Throw	2-4-19	4-11-19	9-19-34	13-23-37	19-29-41	22-32-44	25-34-47
1" Slot Width	2 Slot 10" Dia. Inlet	2 Ft.	Airflow, CFM	80	165	250	335	420	505	590
			Total Pressure	.006	.029	.067	.121	.190	.275	.376
			Static Pressure	.005	.024	.054	.096	.151	.217	.297
			Noise Criteria	<15	<15	<15	23	31	37	42
			Throw	2-4-13	8-13-24	13-20-30	18-24-34	22-28-39	24-30-42	26-32-46
		4 Ft.	Airflow, CFM	160	300	440	580	720	860	1000
			Total Pressure	.016	.057	.122	.212	.326	.464	.628
			Static Pressure	.011	.036	.078	.136	.210	.299	.404
			Noise Criteria	<15	<15	20	29	36	42	47
			Throw	2-4-17	7-15-30	15-23-36	21-30-42	25-33-46	30-35-51	32-39-55
		5 Ft.	Airflow, CFM	200	350	500	650	800	950	1100
			Total Pressure	.022	.068	.140	.238	.360	.506	.679
			Static Pressure	.014	.042	.085	.142	.215	.304	.408
			Noise Criteria	<15	<15	22	31	37	43	47
			Throw	2-4-19	7-14-32	13-23-37	20-31-43	25-43-47	30-36-52	32-40-56
1" Slot Width	2 Slot 12" Dia. Inlet	2 Ft.	Airflow, CFM	80	170	260	350	440	530	620
			Total Pressure	.004	.021	.049	.090	.142	.207	.282
			Static Pressure	.004	.018	.043	.077	.122	.177	.242
			Noise Criteria	<15	<15	<15	21	28	34	39
			Throw	2-4-13	8-13-24	14-21-31	19-25-35	23-28-40	25-31-43	28-33-47
		4 Ft.	Airflow, CFM	160	320	480	640	800	960	1120
			Total Pressure	.010	.036	.082	.147	.229	.330	.448
			Static Pressure	.006	.026	.058	.102	.159	.229	.312
			Noise Criteria	<15	<15	<15	24	32	37	42
			Throw	2-4-17	8-17-31	17-25-37	23-31-44	29-34-48	31-37-54	33-41-57
		5 Ft.	Airflow, CFM	200	375	550	725	900	1075	1250
			Total Pressure	.013	.044	.095	.165	.255	.363	.490
			Static Pressure	.009	.029	.062	.108	.167	.238	.321
			Noise Criteria	<15	<15	17	26	33	38	43
			Throw	2-4-19	8-17-33	17-25-40	23-32-45	29-35-51	32-39-55	34-42-59
1.5" Slot Width	2 Slot 10" Dia. Inlet	2 Ft.	Airflow, CFM	120	210	300	390	480	570	660
			Total Pressure	.011	.033	.068	.116	.175	.248	.333
			Static Pressure	.007	.024	.048	.082	.124	.175	.234
			Noise Criteria	<15	<15	<15	21	27	33	38
			Throw	2-4-15	6-13-26	12-19-31	17-25-35	21-28-40	24-31-43	26-33-46
		4 Ft.	Airflow, CFM	240	340	440	540	640	740	840
			Total Pressure	.029	.059	.097	.148	.207	.276	.356
			Static Pressure	.016	.032	.055	.082	.114	.154	.198
			Noise Criteria	<15	<15	<15	22	28	32	37
			Throw	2-6-20	4-10-29	8-17-34	11-23-39	15-26-42	21-31-45	23-34-47
		5 Ft.	Airflow, CFM	260	365	470	575	680	785	890
			Total Pressure	.031	.061	.102	.152	.213	.284	.365
			Static Pressure	.016	.031	.052	.078	.109	.146	.187
			Noise Criteria	<15	<15	<15	22	28	32	36
			Throw	2-4-17	3-8-28	6-13-35	9-20-39	12-25-42	17-30-45	21-33-47

For performance table notes, see page A47.

PERFORMANCE DATA • VERTICAL JET THROW SERIES

MODELS: FLV / FTV (15 & 20) • 2 SLOT WITH NAILOR PLENUM

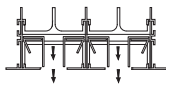


1.5" Slot Width	2 Slot 12" Dia. Inlet	2 Ft.	Airflow, CFM	120	230	340	450	560	670	780
			Total Pressure	.006	.025	.054	.094	.146	.209	.284
			Static Pressure	.005	.019	.042	.073	.112	.161	.217
			Noise Criteria	<15	<15	<15	19	26	32	36
			Throw	2-4-15	8-14-28	14-22-33	19-26-39	24-30-43	26-33-46	29-35-40
		4 Ft.	Airflow, CFM	240	390	540	690	840	990	1140
			Total Pressure	.016	.043	.082	.134	.199	.276	.366
			Static Pressure	.010	.027	.050	.082	.122	.170	.225
			Noise Criteria	<15	<15	<15	22	28	33	38
			Throw	2-6-20	6-13-32	17-25-37	23-31-44	29-34-48	31-37-54	33-41-57
		5 Ft.	Airflow, CFM	260	425	590	755	920	1085	1250
			Total Pressure	.017	.046	.089	.144	.215	.300	.397
			Static Pressure	.010	.027	.051	.083	.124	.172	.228
			Noise Criteria	<15	<15	<15	22	29	34	39
			Throw	2-4-17	4-11-32	9-21-39	15-29-44	22-34-48	26-37-53	31-40-56
1.5" Slot Width	2 Slot 14" Dia. Inlet	2 Ft.	Airflow, CFM	120	240	360	480	600	720	840
			Total Pressure	.005	.018	.042	.074	.116	.167	.227
			Static Pressure	.004	.015	.034	.061	.094	.136	.185
			Noise Criteria	<15	<15	<15	<15	23	29	34
			Throw	2-4-15	8-15-28	15-23-34	21-28-40	25-31-44	28-34-48	30-36-52
		4 Ft.	Airflow, CFM	240	415	590	765	940	1115	1290
			Total Pressure	.010	.030	.060	.101	.152	.214	.287
			Static Pressure	.006	.019	.040	.066	.101	.141	.189
			Noise Criteria	<15	<15	<15	18	24	30	35
			Throw	2-6-20	7-15-33	13-25-40	22-32-45	26-35-51	31-39-55	34-42-55
		5 Ft.	Airflow, CFM	260	440	620	800	980	1160	1340
			Total Pressure	.011	.032	.063	.105	.157	.220	.293
			Static Pressure	.007	.020	.041	.067	.101	.141	.188
			Noise Criteria	<15	<15	<15	18	25	30	35
			Throw	2-4-17	6-12-33	10-23-40	17-30-45	24-35-51	29-39-55	33-42-58
2" Slot Width	2 Slot 10" Dia. Inlet	2 Ft.	Airflow, CFM	70	140	210	280	350	420	490
			Total Pressure	.003	.013	.028	.050	.078	.112	.154
			Static Pressure	.002	.009	.018	.032	.051	.073	.100
			Noise Criteria	<15	<15	<15	<15	<15	19	24
			Throw	0-1-3	1-3-11	3-6-18	5-11-22	8-14-25	11-18-27	14-20-30
		4 Ft.	Airflow, CFM	250	355	460	565	670	775	880
			Total Pressure	.028	.057	.095	.143	.201	.270	.348
			Static Pressure	.014	.028	.047	.072	.101	.135	.174
			Noise Criteria	<15	<15	<15	21	27	31	35
			Throw	1-3-10	3-5-20	4-9-26	6-13-29	9-19-31	11-21-34	14-25-37
		5 Ft.	Airflow, CFM	280	390	500	610	720	830	940
			Total Pressure	.032	.061	.101	.150	.210	.278	.357
			Static Pressure	.014	.027	.045	.067	.093	.128	.158
			Noise Criteria	<15	<15	<15	21	27	31	35
			Throw	1-3-9	2-4-17	3-7-25	4-10-30	7-14-32	9-20-34	11-23-37
2" Slot Width	2 Slot 12" Dia. Inlet	2 Ft.	Airflow, CFM	140	275	410	545	680	815	950
			Total Pressure	.007	.028	.062	.109	.170	.244	.332
			Static Pressure	.005	.019	.044	.077	.120	.172	.234
			Noise Criteria	<15	<15	<15	20	27	33	38
			Throw	1-3-11	5-11-22	11-17-27	15-22-31	19-25-35	22-27-38	24-27-38
		4 Ft.	Airflow, CFM	250	425	600	775	950	1125	1300
			Total Pressure	.015	.044	.088	.147	.219	.308	.412
			Static Pressure	.008	.024	.049	.081	.122	.171	.229
			Noise Criteria	<15	<15	<15	22	29	34	39
			Throw	1-3-10	3-8-24	7-14-30	11-21-34	16-26-37	20-29-41	24-31-44
		5 Ft.	Airflow, CFM	280	460	640	820	1000	1180	1360
			Total Pressure	.017	.047	.091	.149	.221	.309	.410
			Static Pressure	.008	.024	.047	.076	.113	.158	.210
			Noise Criteria	<15	<15	<15	22	28	34	38
			Throw	1-3-9	3-6-22	5-12-31	9-19-34	13-25-37	18-29-41	22-31-44

For performance table notes, see page A47.

PERFORMANCE DATA • VERTICAL JET THROW SERIES

MODELS: FLV / FTV (20, 25 & 30) • 2 SLOT WITH NAILOR PLENUM



2" Slot Width	2 Slot 14" Dia. Inlet	2 Ft.	Airflow, CFM	140	280	420	560	700	840	980
			Total Pressure	.004	.018	.041	.073	.114	.165	.225
			Static Pressure	.003	.014	.031	.055	.086	.123	.168
			Noise Criteria	<15	<15	<15	<15	21	27	32
			Throw	1-3-11	5-11-22	11-18-27	15-22-31	20-25-36	22-27-39	24-30-42
		4 Ft.	Airflow, CFM	250	450	650	850	1050	1250	1450
			Total Pressure	.010	.030	.062	.106	.161	.228	.307
			Static Pressure	.005	.018	.037	.063	.096	.137	.184
			Noise Criteria	<15	<15	<15	18	24	30	35
			Throw	1-3-10	3-9-25	8-17-31	13-24-36	20-28-40	23-31-43	26-33-47
		5 Ft.	Airflow, CFM	280	480	680	880	1080	1280	1480
			Total Pressure	.011	.030	.061	.102	.153	.215	.288
			Static Pressure	.005	.017	.034	.057	.086	.120	.159
			Noise Criteria	<15	<15	<15	16	23	28	33
			Throw	1-3-10	3-8-28	7-15-37	11-25-42	17-31-46	24-26-50	28-38-54
2.5" Slot Width	2 Slot 14" Dia. Inlet	2 Ft.	Airflow, CFM	150	335	520	705	890	1075	1260
			Total Pressure	.004	.022	.054	.098	.157	.229	.315
			Static Pressure	.003	.016	.037	.070	.111	.162	.223
			Noise Criteria	<15	<15	<15	18	26	32	37
			Throw	1-3-9	5-11-24	12-20-30	17-25-35	22-27-39	25-31-43	26-32-46
		4 Ft.	Airflow, CFM	300	540	780	1020	1260	1500	1740
			Total Pressure	.012	.039	.080	.137	.209	.295	.398
			Static Pressure	.006	.021	.044	.076	.116	.164	.220
			Noise Criteria	<15	<15	<15	21	28	33	38
			Throw	1-3-10	3-9-26	8-17-33	13-25-38	20-30-43	25-32-46	28-35-50
		5 Ft.	Airflow, CFM	350	600	850	1100	1350	1600	1850
			Total Pressure	.015	.043	.087	.144	.218	.306	.410
			Static Pressure	.007	.022	.044	.074	.111	.157	.210
			Noise Criteria	<15	<15	<15	22	28	34	38
			Throw	1-3-9	3-7-26	6-14-34	10-23-38	15-29-43	22-33-47	26-36-50
3" Slot Width	2 Slot 14" Dia. Inlet	2 Ft.	Airflow, CFM	175	385	595	805	1015	1225	1435
			Total Pressure	.005	.026	.062	.113	.181	.263	.361
			Static Pressure	.003	.017	.042	.076	.120	.175	.241
			Noise Criteria	<15	<15	<15	20	27	33	38
			Throw	1-3-9	5-10-25	11-20-31	18-26-37	22-29-41	26-31-44	28-34-18
		4 Ft.	Airflow, CFM	320	580	840	1100	1360	1620	1880
			Total Pressure	.013	.042	.087	.149	.227	.322	.433
			Static Pressure	.006	.021	.045	.078	.119	.168	.227
			Noise Criteria	<15	<15	<15	22	27	34	39
			Throw	1-2-9	3-7-26	7-14-34	11-24-39	17-30-43	24-33-47	27-36-51
		5 Ft.	Airflow, CFM	380	645	910	1175	1440	1705	1970
			Total Pressure	.016	.045	.090	.149	.224	.314	.419
			Static Pressure	.007	.020	.041	.068	.103	.144	.193
			Noise Criteria	<15	<15	<15	21	28	33	38
			Throw	1-2-9	3-6-23	5-12-34	9-20-39	13-28-43	18-33-47	24-36-50

Performance Notes:

1. Data is based upon FlowLine™ with Nailor engineered plenum (uninsulated) as a complete assembly.
2. All pressures are in inches w.g..
3. Throw values are given at 150, 100 and 50 fpm terminal velocities under isothermal conditions.
4. Noise criteria values are based on 10 dB room absorption, re 10^{-12} watts.
5. Throw values are based on pattern controller set 100% open.
6. Data derived from tests conducted in accordance with ANSI/ASHRAE Standard 70-2023.

HOW TO ORDER

MODEL SERIES: FT

LAY-IN FLOWLINE™ LINEAR DIFFUSERS

EXAMPLE: FTH10 - 48" x 1 SLOT - 08 - AA - AW - – - - – - – - —

1. **Models**

Horizontal High Throw

Standard Flat T-Bar (15/16" or 9/16")

FTH(I)10	1" (25) Slot
FTH(I)15	1 1/2" (38) Slot
FTH(I)20	2" (51) Slot
FTH(I)25	2 1/2" (64) Slot
FTH(I)30	3" (76) Slot

Bolt-Slot (Fineline® Type T-Bar)

FTBH(I)10	1" (25) Slot
FTBH(I)15	1 1/2" (38) Slot
FTBH(I)20	2" (51) Slot
FTBH(I)25	2 1/2" (64) Slot
FTBH(I)30	3" (76) Slot

Vertical Jet Throw

Standard Flat T-Bar (15/16" or 9/16")

FTV(I)10	1" (25) Slot
FTV(I)15	1 1/2" (38) Slot
FTV(I)20	2" (51) Slot
FTV(I)25	2 1/2" (64) Slot
FTV(I)30	3" (76) Slot

Bolt-Slot (Fineline® Type T-Bar)

FTBV(I)10	1" (25) Slot
FTBV(I)15	1 1/2" (38) Slot
FTBV(I)20	2" (51) Slot
FTBV(I)25	2 1/2" (64) Slot
FTBV(I)30	3" (76) Slot

(I) Adds Internal Insulation

Return (no plenum)

Standard Flat T-Bar (15/16" or 9/16")

FTHR10	1" (25) Slot
FTHR15	1 1/2" (38) Slot
FTHR20	2" (51) Slot
FTHR25	2 1/2" (64) Slot
FTHR30	3" (76) Slot

Bolt-Slot (Fineline® Type T-Bar)

FTBHR10	1" (25) Slot
FTBHR15	1 1/2" (38) Slot
FTBHR20	2" (51) Slot
FTBHR25	2 1/2" (64) Slot
FTBHR30	3" (76) Slot

2. **Nominal Length***

Imperial Sizes

inches (mm's)

24, 48, 60

(610, 1219, 1524)

Metric Sizes

(mm's)

(600, 1200, 1500)

3. **Number of Slots**

1	One
2	Two

4. **Inlet Size**

One Slot

06	6" (152)	Round
08	8" (203)	Round
10	10" (254)	Flat Oval
12	12" (305)	Flat Oval
14	14" (356)	Flat Oval

Two Slot

06	6" (152)	Round
08	8" (203)	Round
10R	10" (254)	Round
12R	12" (305)	Round
14R	14" (356)	Round

5. **Frame/Border Type***

One or Two Slot

AA	Flange Frame
AG	Flange/Flangeless Frame
GG	Flangeless Frame

Two Slot

AAS	Flange Frame (Straddle Mount)
GGS	Flangeless Frame (Straddle Mount)

6. **Finish**

AW	Appliance White (default)
BW	British White
SP	Special custom color

Options and Accessories

7. **Left Hand Mounting Hardware**

–	None (default)
TC1	T-Bar Mounting Clips
TC2	Fineline® T-Bar Mounting Clips

8. **Right Hand Mounting Hardware**

–	None (default)
TC1	T-Bar Mounting Clips
TC2	Fineline® T-Bar Mounting Clips

9. **Inlet Damper**

–	None (default)
ID	Inlet Damper with HLQ

10a. **External Insulation**

(non "I" models only)

–	None (default)
EX	External Foil Back (installed)

10b. **Internal Insulation**

("I" models only)

FGI	1/4" (6.35) Coated fiberglass (default)
FFI	3/8" (9.53) Fiber-free foam

Notes:

1. All models include an integral hanger bracket at each end of unit as standard.

2. Bolt-slot Models (FTB) are available in 24" and 48" imperial (600 and 1200 metric) modules only and only with Frame/Border Types GG, AG and GGS. TC2 Fineline® T-Bar Clips are recommended for support and levelling.

3. FT Series models are supplied with Type CC Flat End Caps.

4. Return models are supplied with horizontal type dual pattern controllers for dampering (system balancing) and without plenum. If plenums are required on return air units, use supply model.

5. Standard internal insulation ("I" suffix models) is 1/4 (6.35) coated fiberglass.

SUGGESTED SPECIFICATIONS

FLH and FLV Series

Furnish and install Nailor FlowLine™ linear slot diffusers and accessories of the size and type shown on the architectural and mechanical plans and/or air distribution schedules. Mechanical contractor shall coordinate installation with General Contractor and other sub-contractors as required.

The linear slot diffuser shall utilize heavy wall extruded aluminum frames and be capable of supporting the ceiling system. Material shall be minimum wall thickness 0.06" (1.52). Diffuser frames shall be supplied with integral spacer bars and hanger brackets, spaced approximately on 24" (610) centers. The integral hanger brackets shall allow the linear slot diffusers to be supported from the ceiling structure with hanger wire in lay-in suspension ceiling installations. In hard ceiling installations, provide support clips by the manufacturer that allow the diffusers to be secured to the ceiling diffuser opening framing channels.

The linear slot diffuser shall be complete with factory end border configurations as shown or indicated. Where exposed end caps are required, they shall be factory installed architectural mitered picture frame type. Flanges/butt type end caps are not acceptable.

Provide alignment strips and spline clips by the manufacturer to secure joints and ceiling tees to the linear diffuser as required. Mitered corner sections shall be supplied by the manufacturer in one-piece construction.

The air pattern controller shall be dual type on 24" (610) centers and fully adjustable to permit various air pattern configurations, as well as allow throttling, as required for air volume reduction or complete shut-off without adding any blank-off devices. Pattern controllers shall be minimum 20 ga. (1.01) corrosion-resistant steel. One-piece pattern controllers are not acceptable.

Linear slot diffusers shall incorporate either horizontal high throw or vertical jet throw pattern controllers as shown on mechanical plans and drawings.

All diffusers shall have a single slot, unless shown otherwise, and shall be capable of being used for supply, return or exhaust air. Horizontal high throw diffusers shall maintain a tight ceiling pattern from maximum to minimum cataloged airflows and be suitable for VAV systems.

Where curved linear slot diffusers are indicated, they shall be one slot design and stretch formed by the manufacturer to the exact radii required. Segmented linear slot diffusers are not acceptable. Pattern controller shall be factory installed and fixed in the airflow direction specified on the drawings.

Supply air engineered plenum boots shall be minimum 22 ga. (0.85) coated steel and of the same manufacturer as the linear slot diffuser. Lengths and inlet sizes shall be as indicated on the plans and schedules. Where required, plenums shall be insulated with either internal matt faced fiberglass insulation or external foil back insulation, as specified on drawings or schedules. Return hood/sight baffles shall be provided as shown.

Exposed flange/border frames shall be factory painted standard white or custom painted to match specified architectural requirements. Provide paint samples if required. Pattern controllers and integral spacers shall be painted flat black.

Performance of the linear slot diffuser shall be based upon cataloged data obtained from tests conducted in accordance with ASHRAE Standard 70-2023. Pattern controllers shall be field adjusted after diffuser installation and set in their normal operating condition. Air test and balancing of linear slot diffusers shall be in accordance with the testing and balancing portion section of the specifications.

Provide manufacturers submittal drawings and published performance data.

FM Series

Furnish and install Nailor FlowLine™ modular square ceiling diffusers of the size and type shown on the architectural and mechanical plans and/or air distribution schedules. Diffusers shall be designed as a nominal 24" x 24" (600 x 600mm) module size. Mechanical contractor shall coordinate installation with General Contractor and other sub-contractors as required.

These diffusers shall utilize heavy wall extruded aluminum frames with inside and outside mitered corners. The diffusers shall feature a 1" (25) continuous slot around all four sides with dual pattern controllers that are fully adjustable to permit throttling, as required for air volume reduction or complete shut-off without adding any blank-off devices. Diffusers shall be capable of being adjustable for a 4, 3, 2 or 1-way blow pattern as required after installation. Pattern controllers shall be minimum 20 ga. (1.01) corrosion- resistant steel. One-piece pattern controllers are not acceptable. The pattern controllers shall be horizontal high throw type and shall maintain a tight ceiling air pattern from maximum to minimum cataloged airflows and be suitable for VAV systems.

Supply units shall be complete with a compatible steel back pan that is removable and secured by steel 's' clips. The back pan shall incorporate an integral drawn round neck to permit hard or flexible duct connection. Return units shall be similar in appearance but feature a light shield back pan for ductless return installations. The center acoustical ceiling tile shall be supplied, cut and field installed by the acoustical tile sub-contractor.

Exposed flange/border frames shall be factory painted standard white or custom painted to match specified architectural requirements. Provide paint samples if required. Pattern controllers and integral spacers shall be painted flat black.

Performance of the ceiling diffuser shall be based upon cataloged data obtained from tests conducted in accordance with ASHRAE Standard 70-2023. Pattern controllers shall be field adjusted after diffuser installation and set in their normal operating condition. Air test and balancing of ceiling diffusers shall be in accordance with the testing and balancing portion section of the specifications.

Provide manufacturers submittal drawings and published performance data.