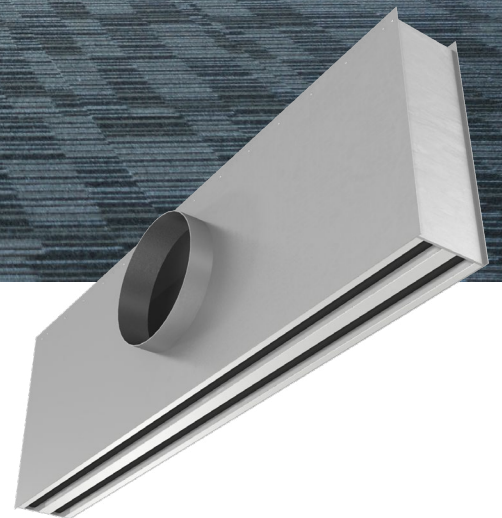


TBD2/3/4/8

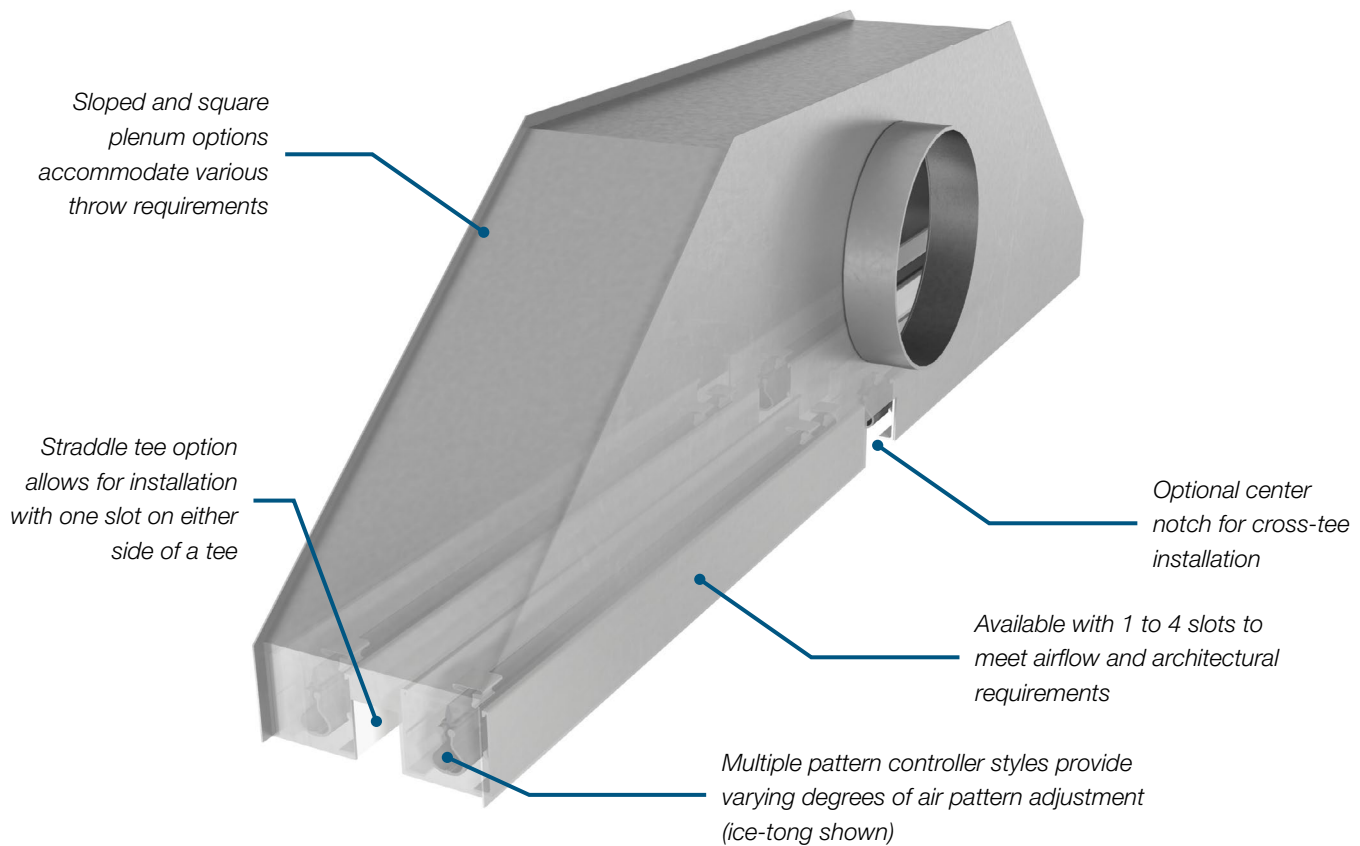
T-BAR DIFFUSER



TBD2/3/4/8

T-Bar Diffuser

T-bar diffusers consists of a coated steel casing with extruded aluminum center tee (minimum 2 slot) and pattern controllers. Air pattern controllers are available in multiple styles to provide various air patterns with a high induction ratio for a high degree of thermal comfort. Matching return diffusers are available to complement supply units and maintain the architectural appearance throughout the space.



CEILING SYSTEM COMPATIBILITY

- + This diffuser can be ordered with a center notch option that bisects the diffuser length so that it can be installed on top of a cross tee.
- + A straddle tee option allows T-bar diffusers to be installed with one discharge slot on either side of a tee.
- + T-bar diffusers are also available with factory installed T-Bars or T-Bar clips on the exterior of the unit for ease of installation.
- + For drywall ceiling applications, a plaster frame is required for mounting.

SLOPED SHOULDER PLENUM

- + A sloped shoulder plenum option is available for diffusers with “ice-tong” style pattern controllers.
- + The sloped plenum provides short horizontal throws and wide horizontal spreads, which is ideal for small spaces to reduce the chance of draft in the occupied zone.

INSULATION OPTIONS

- + Internal insulation options include ¼ in. thick fiber free foam or coated fiberglass insulation.
- + External insulation is provided as ½ in. aluminum foil-backed fiberglass.

RETURN DIFFUSER

- + A T-bar return diffuser is available to complement the T-bar supply diffusers.
- + The return diffuser is available with a rectangular opening in the diffuser plenum for non-ducted return applications.

TYPICAL APPLICATIONS

The TBD series of T-bar diffusers are designed for lay-in installation in standard ceiling grids, and are typically installed along the perimeter of commercial spaces. They provide various air patterns with a high induction ratio for a high degree of thermal comfort.

CONSTRUCTION

- + Slot Widths
 - 1/2 in. (TBDx50)
 - 3/4 in. (TBDx75)
 - 1 in. (TBDx100)
 - 1 1/2 in. (TBDx150)
- + Pattern Controller Style
 - Ice-tong (TBD3, TBD8)
 - Curved (TBD2)
 - Blade (TBD4)
- + Options
 - Return diffuser (TBR)
 - Sloped shoulder plenum (TBD8)
 - Internal insulation (TBDIx)
 - External insulation
 - Fire rated construction (TBxx-FR)
 - Factory installed outer T-bars
 - Aluminum plaster frame

PATTERN CONTROLLERS

All pattern controllers on diffusers 36 in. and longer are divided into two segments to allow for split air pattern deflection.

Ice-Tong TBD3 & TBD8 series

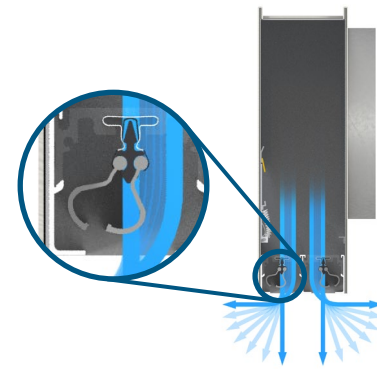
- + The ice-tong style adjustable pattern controllers provide a full 180° range of air pattern adjustment for both horizontal and vertical set points.
- + When set for a horizontal air pattern, the aerodynamically curved pattern controllers produce a tight ceiling-hugging air pattern, even at low airflow rates.

Blade TBD4 series

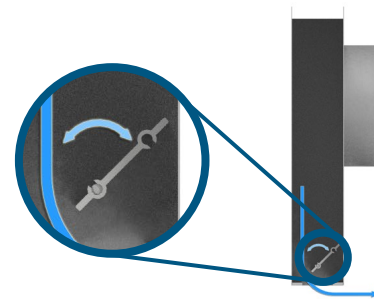
- + The blade type pattern controllers can be field adjusted to direct the airflow horizontally either toward or away from the diffuser inlet.

Curved TBD2 series

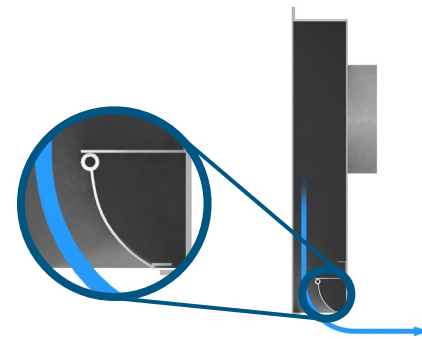
- + The curved adjustable pattern controllers provide a consistent horizontal air pattern.
- + Factory set pattern controllers also offer field adjustability for horizontal left or right airflow, or vertical airflow with the removal of the pattern controllers.



Ice-Tong



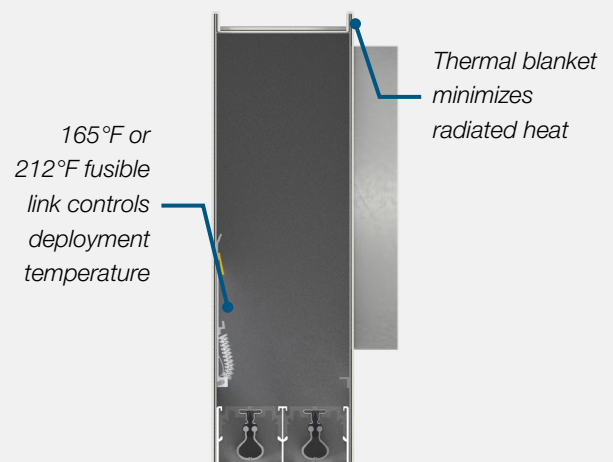
Blade



Curved

FIRE RATED CONSTRUCTION

- + Optional Fire Rated Assembly listing in the UL Fire Resistance Directory. Fire rated models meet UL time vs. temperature test criteria and NFPA90A requirements.
- + Fire rated construction incorporates a thermal blanket and fire damper for use in fire rated T-bar ceiling applications. The butterfly-type fire damper is available with either a 165°F or 212°F fusible link.
- + Available with TBD3, TBD4, and TBR series models.



PERFORMANCE DATA

TBD2 – Curved Pattern Controller, 1 Slot

Model TBD2100 1 in. Slot Width

	Flow Rate (cfm)	50	75	100	125	150	175	200
	Total Pressure (in. w.g.)	0.031	0.070	0.124	0.194	0.279	0.380	0.496
Model = 24 in. 6 in. Diameter Inlet	Static Pressure (in. w.g.)	0.027	0.061	0.108	0.169	0.243	0.330	0.432
	Sound (NC)	-	18	27	34	39	43	47
	Throw (ft.)	3-6-11	6-8-17	7-11-20	9-14-23	11-17-25	13-19-27	15-20-29
	Flow Rate (cfm)	50	80	110	140	170	200	230
Model = 24 in. 8 in. Diameter Inlet	Total Pressure (in. w.g.)	0.023	0.060	0.113	0.182	0.269	0.372	0.492
	Static Pressure (in. w.g.)	0.022	0.056	0.106	0.172	0.254	0.352	0.465
	Sound (NC)	-	17	26	33	39	44	48
	Throw (ft.)	4-7-13	7-11-21	10-15-25	13-19-28	15-22-31	18-23-33	21-25-36
Model = 24 in. 10 in. Diameter Inlet	Flow Rate (cfm)	75	105	135	165	195	225	255
	Total Pressure (in. w.g.)	0.042	0.082	0.136	0.203	0.283	0.377	0.484
	Static Pressure (in. w.g.)	0.041	0.080	0.132	0.197	0.275	0.366	0.470
	Sound (NC)	-	22	30	36	40	45	48
Model = 48 in. 6 in. Diameter Inlet	Throw (ft.)	8-12-23	11-16-27	14-21-31	17-24-34	20-26-37	23-28-39	24-30-42
	Flow Rate (cfm)	80	120	160	200	240	280	320
	Total Pressure (in. w.g.)	0.027	0.061	0.109	0.171	0.246	0.334	0.437
	Static Pressure (in. w.g.)	0.017	0.038	0.068	0.106	0.152	0.207	0.271
Model = 48 in. 8 in. Diameter Inlet	Sound (NC)	-	16	24	31	36	41	45
	Throw (ft.)	1-3-8	3-6-12	5-8-14	7-10-16	8-12-18	9-13-19	11-14-20
	Flow Rate (cfm)	100	150	200	250	300	350	400
	Total Pressure (in. w.g.)	0.032	0.072	0.128	0.200	0.288	0.392	0.512
Model = 48 in. 10 in. Diameter Inlet	Static Pressure (in. w.g.)	0.027	0.060	0.107	0.168	0.242	0.329	0.430
	Sound (NC)	-	19	27	34	39	44	48
	Throw (ft.)	3-6-12	6-9-16	8-12-19	10-15-21	12-16-23	14-17-25	15-19-26
	Flow Rate (cfm)	100	160	220	280	340	400	460
Model = 48 in. 12 in. Diameter Inlet	Total Pressure (in. w.g.)	0.026	0.065	0.124	0.201	0.296	0.409	0.541
	Static Pressure (in. w.g.)	0.023	0.060	0.114	0.184	0.271	0.376	0.497
	Sound (NC)	-	18	27	34	40	45	49
	Throw (ft.)	4-7-14	8-11-19	10-15-22	13-17-25	16-19-27	17-21-29	18-22-31
Model = 48 in. 12 in. Diameter Inlet	Flow Rate (cfm)	150	200	250	300	350	400	450
	Total Pressure (in. w.g.)	0.048	0.085	0.133	0.192	0.261	0.341	0.432
	Static Pressure (in. w.g.)	0.046	0.081	0.127	0.183	0.249	0.325	0.411
	Sound (NC)	-	22	29	34	39	43	46
	Throw (ft.)	8-12-20	11-16-23	13-18-25	16-20-28	17-21-30	19-23-32	20-24-34

Model TBD2150 1-1/2 in. Slot Width

	Flow Rate (cfm)	50	75	100	125	150	175	200
	Total Pressure (in. w.g.)	0.028	0.063	0.113	0.176	0.253	0.345	0.450
Model = 24 in. 6 in. Diameter Inlet	Static Pressure (in. w.g.)	0.024	0.054	0.096	0.151	0.217	0.295	0.386
	Sound (NC)	-	17	25	32	37	42	46
	Throw (ft.)	3-5-11	5-8-16	7-11-20	9-14-22	11-16-25	13-19-26	14-20-28
	Flow Rate (cfm)	50	80	110	140	170	200	230
Model = 24 in. 8 in. Diameter Inlet	Total Pressure (in. w.g.)	0.021	0.054	0.102	0.166	0.244	0.338	0.447
	Static Pressure (in. w.g.)	0.020	0.051	0.096	0.156	0.229	0.317	0.420
	Sound (NC)	-	15	25	32	38	42	47
	Throw (ft.)	4-7-13	7-11-21	10-15-24	12-18-27	15-21-30	18-23-33	20-25-35
Model = 24 in. 10 in. Diameter Inlet	Flow Rate (cfm)	75	105	135	165	195	225	255
	Total Pressure (in. w.g.)	0.038	0.074	0.123	0.184	0.257	0.342	0.439
	Static Pressure (in. w.g.)	0.037	0.072	0.119	0.178	0.249	0.331	0.426
	Sound (NC)	-	21	28	34	39	43	47
	Throw (ft.)	8-12-22	11-16-26	14-21-30	17-23-33	20-26-36	22-27-39	24-29-41

Performance Notes:

- Tested in accordance with ASHRAE Standard 70 – 2023 Method of Testing for Rating the Performance of Air Outlets and Inlets.
- Airflow is in cubic feet per minute [cfm].
- NC, sound pressure levels, are based on a room absorption of 10 dB re 10⁻¹² Watts, and a single diffuser/grille.
- Blanks “-” indicate an NC level below 15.
- All pressures are in inches of water column [in. w.g.].
- Pressures not listed can be calculated using the following formula:
Ptotal = Pstatic + Pvelocity
- Throw data is based on supply air and room air being at isothermal conditions.
- Throw data is given in feet [ft] to terminal velocities of:
150 fpm (minimum)
100 fpm (middle)
50 fpm (maximum)

PERFORMANCE DATA

TBD2 – Curved Pattern Controller, 1 Slot (continued)

Model = 48 in. 6 in. Diameter Inlet	Flow Rate (cfm)	80	125	170	215	260	305	350
	Total Pressure (in. w.g.)	0.025	0.061	0.112	0.179	0.262	0.361	0.475
	Static Pressure (in. w.g.)	0.014	0.035	0.065	0.104	0.153	0.210	0.277
	Sound (NC)	-	15	24	31	37	42	46
	Throw (ft.)	1-3-8	3-6-12	6-8-15	7-11-16	9-13-18	10-14-20	11-15-21
Model = 48 in. 8 in. Diameter Inlet	Flow Rate (cfm)	90	145	200	255	310	365	420
	Total Pressure (in. w.g.)	0.024	0.061	0.116	0.189	0.279	0.387	0.513
	Static Pressure (in. w.g.)	0.019	0.050	0.096	0.156	0.230	0.319	0.423
	Sound (NC)	-	16	26	33	39	43	48
	Throw (ft.)	2-5-11	6-9-16	8-12-16	10-15-21	12-16-23	14-17-25	15-19-26
Model = 48 in. 10 in. Diameter Inlet	Flow Rate (cfm)	110	175	240	305	370	435	500
	Total Pressure (in. w.g.)	0.028	0.071	0.134	0.216	0.318	0.440	0.582
	Static Pressure (in. w.g.)	0.026	0.065	0.122	0.197	0.290	0.401	0.529
	Sound (NC)	-	19	28	35	41	46	50
	Throw (ft.)	5-8-15	8-12-19	11-16-22	14-18-25	16-20-28	17-21-30	19-23-32
Model = 48 in. 12 in. Diameter Inlet	Flow Rate (cfm)	150	200	250	300	350	400	450
	Total Pressure (in. w.g.)	0.044	0.078	0.121	0.174	0.237	0.310	0.393
	Static Pressure (in. w.g.)	0.041	0.073	0.115	0.165	0.225	0.294	0.372
	Sound (NC)	-	21	27	33	37	41	45
	Throw (ft.)	8-12-19	10-16-22	13-18-25	16-19-27	17-21-30	18-22-32	19-24-34

For Performance Notes, see previous page.

TBD2 – Curved Pattern Controller, 2 Slot, 1-Way Discharge

Model TBD2100 1 in. Slot Width

Model = 24 in. 6 in. Diameter Inlet	Flow Rate (cfm)	90	125	160	195	230	265	300
	Total Pressure (in. w.g.)	0.058	0.112	0.184	0.273	0.379	0.503	0.645
	Static Pressure (in. w.g.)	0.045	0.087	0.142	0.211	0.294	0.390	0.500
	Sound (NC)	16	25	33	38	43	47	51
	Throw (ft.)	5-8-16	8-11-20	10-15-22	12-17-25	14-19-27	16-20-29	18-22-31
Model = 24 in. 8 in. Diameter Inlet	Flow Rate (cfm)	90	135	180	225	270	315	360
	Total Pressure (in. w.g.)	0.033	0.074	0.131	0.204	0.294	0.400	0.523
	Static Pressure (in. w.g.)	0.029	0.064	0.114	0.178	0.257	0.349	0.456
	Sound (NC)	-	20	29	35	40	45	49
	Throw (ft.)	7-10-19	10-15-24	13-19-27	17-22-31	19-24-33	21-26-36	22-27-39
Model = 24 in. 10 in. Diameter Inlet	Flow Rate (cfm)	100	155	210	265	320	375	430
	Total Pressure (in. w.g.)	0.026	0.062	0.114	0.181	0.264	0.363	0.477
	Static Pressure (in. w.g.)	0.024	0.057	0.105	0.167	0.243	0.333	0.438
	Sound (NC)	-	18	27	34	40	44	48
	Throw (ft.)	9-13-23	13-20-28	18-23-33	21-26-37	24-29-41	25-31-44	27-33-47
Model = 48 in. 6 in. Diameter Inlet	Flow Rate (cfm)	150	195	240	285	330	375	420
	Total Pressure (in. w.g.)	0.078	0.132	0.200	0.281	0.377	0.487	0.611
	Static Pressure (in. w.g.)	0.042	0.070	0.106	0.150	0.201	0.260	0.326
	Sound (NC)	19	26	32	38	42	46	49
	Throw (ft.)	3-6-12	5-8-14	7-10-15	8-12-17	9-13-18	10-13-19	11-14-20
Model = 48 in. 8 in. Diameter Inlet	Flow Rate (cfm)	170	225	280	335	390	445	500
	Total Pressure (in. w.g.)	0.056	0.099	0.153	0.219	0.296	0.386	0.487
	Static Pressure (in. w.g.)	0.042	0.073	0.113	0.161	0.219	0.285	0.359
	Sound (NC)	15	23	30	35	39	43	47
	Throw (ft.)	6-8-15	7-11-17	9-13-19	11-15-21	13-16-22	14-17-24	15-18-25
Model = 48 in. 10 in. Diameter Inlet	Flow Rate (cfm)	175	240	305	370	435	500	565
	Total Pressure (in. w.g.)	0.038	0.072	0.116	0.171	0.236	0.312	0.398
	Static Pressure (in. w.g.)	0.032	0.060	0.097	0.142	0.196	0.259	0.331
	Sound (NC)	-	19	26	32	37	41	44
	Throw (ft.)	7-10-17	9-14-20	12-16-22	14-17-24	15-19-26	16-20-28	17-21-30
Model = 48 in. 12 in. Diameter Inlet	Flow Rate (cfm)	200	275	350	425	500	575	650
	Total Pressure (in. w.g.)	0.035	0.065	0.106	0.156	0.216	0.286	0.366
	Static Pressure (in. w.g.)	0.031	0.058	0.094	0.138	0.191	0.253	0.323
	Sound (NC)	-	18	26	31	36	40	44
	Throw (ft.)	9-13-20	12-16-23	15-18-26	16-20-29	18-22-31	19-23-33	20-25-35

For Performance Notes, see end of section.

PERFORMANCE DATA

TBD2 – Curved Pattern Controller, 2 Slot, 1-Way Discharge (continued)

Model TBD2150 1-1/2 in. Slot Width

Model = 24 in. 6 in. Diameter Inlet	Flow Rate (cfm)	90	125	160	195	230	265	300
	Total Pressure (in. w.g.)	0.047	0.090	0.148	0.220	0.305	0.405	0.52
	Static Pressure (in. w.g.)	0.034	0.065	0.106	0.158	0.220	0.292	0.374
	Sound (NC)	-	22	29	35	40	44	48
	Throw (ft.)	5-8-15	7-11-19	9-14-21	11-16-23	13-18-25	15-19-27	17-20-29
Model = 24 in. 8 in. Diameter Inlet	Flow Rate (cfm)	90	135	180	225	270	315	360
	Total Pressure (in. w.g.)	0.026	0.059	0.105	0.164	0.237	0.322	0.421
	Static Pressure (in. w.g.)	0.022	0.050	0.089	0.138	0.199	0.271	0.355
	Sound (NC)	-	16	25	32	37	41	45
	Throw (ft.)	6-9-18	9-14-22	12-18-26	15-20-29	18-22-32	20-24-34	21-26-37
Model = 24 in. 10 in. Diameter Inlet	Flow Rate (cfm)	100	155	210	265	320	375	430
	Total Pressure (in. w.g.)	0.021	0.050	0.092	0.146	0.213	0.292	0.384
	Static Pressure (in. w.g.)	0.019	0.045	0.082	0.131	0.191	0.263	0.346
	Sound (NC)	-	15	24	31	36	41	45
	Throw (ft.)	8-12-22	12-19-27	17-22-31	20-25-35	22-27-39	24-30-42	26-32-45
Model = 48 in. 6 in. Diameter Inlet	Flow Rate (cfm)	150	200	250	300	350	400	450
	Total Pressure (in. w.g.)	0.064	0.113	0.177	0.254	0.346	0.452	0.572
	Static Pressure (in. w.g.)	0.027	0.048	0.076	0.109	0.148	0.193	0.245
	Sound (NC)	15	24	30	36	40	44	48
	Throw (ft.)	3-6-11	5-8-13	6-10-15	8-11-16	9-12-17	10-13-19	11-14-20
Model = 48 in. 8 in. Diameter Inlet	Flow Rate (cfm)	180	240	300	360	420	480	540
	Total Pressure (in. w.g.)	0.051	0.092	0.143	0.206	0.280	0.366	0.463
	Static Pressure (in. w.g.)	0.035	0.062	0.097	0.140	0.190	0.248	0.314
	Sound (NC)	-	22	28	34	38	42	46
	Throw (ft.)	6-8-14	7-11-17	9-13-19	11-14-20	13-16-22	14-17-24	14-18-25
Model = 48 in. 10 in. Diameter Inlet	Flow Rate (cfm)	220	290	360	430	500	570	640
	Total Pressure (in. w.g.)	0.049	0.086	0.132	0.188	0.254	0.330	0.417
	Static Pressure (in. w.g.)	0.039	0.068	0.105	0.149	0.202	0.262	0.331
	Sound (NC)	-	21	28	33	38	41	45
	Throw (ft.)	8-12-18	10-14-20	13-16-23	14-18-25	16-19-27	17-20-29	18-22-30
Model = 48 in. 12 in. Diameter Inlet	Flow Rate (cfm)	275	355	435	515	595	675	755
	Total Pressure (in. w.g.)	0.053	0.089	0.134	0.187	0.250	0.322	0.403
	Static Pressure (in. w.g.)	0.046	0.076	0.115	0.161	0.214	0.276	0.345
	Sound (NC)	15	23	29	34	38	42	45
	Throw (ft.)	11-15-22	14-18-25	16-19-27	17-21-30	19-23-32	20-24-34	21-26-36

Performance Notes:

1. Tested in accordance with ASHRAE Standard 70 – 2023 Method of Testing for Rating the Performance of Air Outlets and Inlets.
2. Airflow is in cubic feet per minute [cfm].
3. NC, sound pressure levels, are based on a room absorption of 10 dB re 10⁻¹² Watts, and a single diffuser/grille.
4. Blanks “-” indicate an NC level below 15.
5. All pressures are in inches of water column [in. w.g.].
6. Pressures not listed can be calculated using the following formula:
 $P_{total} = P_{static} + P_{velocity}$
7. Throw data is based on supply air and room air being at isothermal conditions.
8. Throw data is given in feet [ft] to terminal velocities of:
150 fpm (minimum)
100 fpm (middle)
50 fpm (maximum)

PERFORMANCE DATA

TBD3 – Ice-Tong Pattern Controller, 1 Slot

Model TBD350 1/2 in. Slot Width

Length = 24 in. Inlet = 6 in.	Total Pressure (in. w.g.)	0.053	0.120	0.214	0.334	0.481	0.654				
	Static Pressure (in. w.g.)	0.051	0.115	0.204	0.318	0.458	0.624				
	Flow Rate (cfm)	39	59	78	98	118	137				
	Sound (NC)	-	25	35	42	48	53				
	Throw (ft.)	4-7-14	7-11-19	10-14-22	12-18-25	14-19-27	17-21-30				
Length = 24 in. Inlet = 8 in.	Total Pressure (in. w.g.)	0.141	0.317	0.564							
	Static Pressure (in. w.g.)	0.139	0.312	0.554							
	Flow Rate (cfm)	70	105	140							
	Sound (NC)	26	40	49							
	Throw (ft.)	8-13-21	13-18-26	17-21-30							
Length = 48 in. Inlet = 6 in.	Total Pressure (in. w.g.)	0.020	0.045	0.080	0.124	0.179	0.244	0.319	0.403	0.498	
	Static Pressure (in. w.g.)	0.017	0.039	0.070	0.109	0.157	0.213	0.279	0.353	0.436	
	Flow Rate (cfm)	39	59	78	98	118	137	157	176	196	
	Sound (NC)	-	-	20	28	34	39	43	47	50	
	Throw (ft.)	1-3-7	3-5-10	4-7-13	6-8-16	7-10-17	8-12-19	9-13-20	10-15-21	11-16-22	
Length = 48 in. Inlet = 8 in.	Total Pressure (in. w.g.)	0.045	0.100	0.178	0.278	0.401	0.546				
	Static Pressure (in. w.g.)	0.042	0.095	0.168	0.263	0.378	0.515				
	Flow Rate (cfm)	70	105	140	175	209	244				
	Sound (NC)	-	23	32	39	45	51				
	Throw (ft.)	4-6-12	6-9-16	8-12-19	10-15-21	12-16-23	14-17-25				
Length = 48 in. Inlet = 10 in.	Total Pressure (in. w.g.)	0.092	0.207	0.367	0.574						
	Static Pressure (in. w.g.)	0.089	0.201	0.357	0.558						
	Flow Rate (cfm)	109	164	218	273						
	Sound (NC)	20	33	43	50						
	Throw (ft.)	6-9-17	9-14-20	12-17-23	15-18-26						
Length = 48 in. Inlet = 12 in.	Total Pressure (in. w.g.)	0.174	0.391	0.695							
	Static Pressure (in. w.g.)	0.171	0.385	0.685							
	Flow Rate (cfm)	157	236	314							
	Sound (NC)	29	43	52							
	Throw (ft.)	9-13-20	13-17-24	16-20-28							
Length = 60 in. Inlet = 6 in.	Total Pressure (in. w.g.)	0.015	0.035	0.061	0.096	0.138	0.188	0.245	0.311	0.384	0.552
	Static Pressure (in. w.g.)	0.013	0.029	0.051	0.080	0.116	0.157	0.206	0.260	0.321	0.463
	Flow Rate (cfm)	39	59	78	98	118	137	157	176	196	235
	Sound (NC)	-	-	16	24	30	35	39	43	47	53
	Throw (ft.)	1-1-4	1-3-6	2-4-8	3-5-10	4-6-11	4-7-13	5-8-14	6-9-15	6-10-16	8-11-17
Length = 60 in. Inlet = 8 in.	Total Pressure (in. w.g.)	0.032	0.072	0.128	0.200	0.288	0.392	0.512			
	Static Pressure (in. w.g.)	0.029	0.066	0.118	0.184	0.265	0.361	0.472			
	Flow Rate (cfm)	70	105	140	175	209	244	279			
	Sound (NC)	-	18	27	35	41	46	50			
	Throw (ft.)	2-3-7	3-5-10	5-7-13	6-9-15	7-10-16	8-12-17	9-13-19			
Length = 60 in. Inlet = 10 in.	Total Pressure (in. w.g.)	0.063	0.143	0.253	0.396	0.570					
	Static Pressure (in. w.g.)	0.061	0.137	0.243	0.380	0.548					
	Flow Rate (cfm)	109	164	218	273	327					
	Sound (NC)	-	28	37	45	51					
	Throw (ft.)	4-5-11	5-8-14	7-11-16	9-13-18	11-14-20					
Length = 60 in. Inlet = 12 in.	Total Pressure (in. w.g.)	0.117	0.264	0.469							
	Static Pressure (in. w.g.)	0.115	0.258	0.459							
	Flow Rate (cfm)	157	236	314							
	Sound (NC)	24	37	46							
	Throw (ft.)	5-8-14	8-11-17	10-14-20							

Performance Notes:

1. Tested in accordance with ASHRAE Standard 70 – 2023 Method of Testing for Rating the Performance of Air Outlets and Inlets.
2. Airflow is in cubic feet per minute [cfm].
3. NC, sound pressure levels, are based on a room absorption of 10 dB re 10⁻¹² Watts, and a single diffuser/grille.
4. Blanks "-" indicate an NC level below 15.
5. All pressures are in inches of water column [in. w.g.].
6. Pressures not listed can be calculated using the following formula:
Ptotal = Pstatic + Pvelocity
7. Throw data is based on supply air and room air being at isothermal conditions.
8. Throw data is given in feet [ft] to terminal velocities of:
150 fpm (minimum)
100 fpm (middle)
50 fpm (maximum)
9. Blank area outside recommended operating range.
10. Does not include effects of ceiling radiation damper (TBD3-FR).

PERFORMANCE DATA

TBD3 – Ice-Tong Pattern Controller, 1 Slot (continued)

Model TBD375 3/4 in. Slot Width

Length = 24 in. Inlet = 6 in.	Total Pressure (in. w.g.)	0.040	0.090	0.159	0.249	0.358	0.488	0.637			
	Static Pressure (in. w.g.)	0.037	0.084	0.149	0.233	0.336	0.457	0.597			
	Flow Rate (cfm)	39	59	78	98	118	137	157			
	Sound (NC)	-	22	33	41	48	54	58			
	Throw (ft.)	3-6-13	6-10-19	9-13-22	11-16-25	13-19-27	15-21-30	17-22-32			
Length = 24 in. Inlet = 8 in.	Total Pressure (in. w.g.)	0.102	0.229	0.406	0.635						
	Static Pressure (in. w.g.)	0.099	0.223	0.396	0.619						
	Flow Rate (cfm)	70	105	140	175						
	Sound (NC)	26	41	52	60						
	Throw (ft.)	8-11-21	11-17-26	15-21-30	19-24-33						
Length = 24 in. Inlet = 10 in.	Total Pressure (in. w.g.)	0.220	0.495	0.880							
	Static Pressure (in. w.g.)	0.217	0.489	0.870							
	Flow Rate (cfm)	109	164	218							
	NC	42	57	68							
	Throw (ft.)	12-18-26	18-23-32	22-26-37							
Length = 48 in. Inlet = 6 in.	Total Pressure (in. w.g.)	0.014	0.032	0.057	0.090	0.129	0.176	0.229	0.290	0.358	0.516
	Static Pressure (in. w.g.)	0.012	0.027	0.047	0.074	0.107	0.145	0.189	0.240	0.296	0.426
	Flow Rate (cfm)	39	59	78	98	118	137	157	176	196	235
	Sound (NC)	-	-	-	20	27	33	38	42	46	53
	Throw (ft.)	1-2-6	2-4-9	3-6-12	5-7-14	6-9-17	7-10-19	8-12-20	9-13-21	10-14-22	12-17-24
Length = 48 in. Inlet = 8 in.	Total Pressure (in. w.g.)	0.033	0.075	0.133	0.208	0.299	0.408	0.532			
	Static Pressure (in. w.g.)	0.031	0.069	0.123	0.192	0.277	0.377	0.492			
	Flow Rate (cfm)	70	105	140	175	209	244	279			
	Sound (NC)	-	19	29	37	44	50	55			
	Throw (ft.)	2-5-10	5-8-15	7-10-19	9-13-21	10-15-23	12-17-25	14-19-26			
Length = 48 in. Inlet = 10 in.	Total Pressure (in. w.g.)	0.067	0.151	0.269	0.421	0.606					
	Static Pressure (in. w.g.)	0.065	0.146	0.259	0.405	0.584					
	Flow Rate (cfm)	109	164	218	273	327					
	Sound (NC)	18	33	44	52	59					
	Throw (ft.)	5-8-16	8-12-20	11-16-23	13-18-26	16-20-29					
Length = 48 in. Inlet = 12 in.	Total Pressure (in. w.g.)	0.124	0.279	0.496							
	Static Pressure (in. w.g.)	0.122	0.273	0.486							
	Flow Rate (cfm)	157	236	314							
	Sound (NC)	30	45	56							
	Throw (ft.)	8-12-20	12-17-24	15-20-28							
Length = 60 in. Inlet = 6 in.	Total Pressure (in. w.g.)	0.011	0.024	0.042	0.066	0.095	0.129	0.169	0.214	0.264	0.380
	Static Pressure (in. w.g.)	0.008	0.018	0.032	0.050	0.073	0.099	0.129	0.163	0.202	0.290
	Flow Rate (cfm)	39	59	78	98	118	137	157	176	196	235
	Sound (NC)	-	-	-	-	21	26	31	36	40	46
	Throw (ft.)	0-1-3	1-2-5	1-3-7	2-4-8	3-5-10	4-6-12	4-7-13	5-7-15	5-8-16	7-10-17
Length = 60 in. Inlet = 8 in.	Total Pressure (in. w.g.)	0.024	0.054	0.095	0.149	0.214	0.292	0.381	0.482	0.595	
	Static Pressure (in. w.g.)	0.021	0.048	0.085	0.133	0.192	0.261	0.341	0.431	0.533	
	Flow Rate (cfm)	70	105	140	175	209	244	279	314	349	
	Sound (NC)	-	-	22	31	37	43	48	52	56	
	Throw (ft.)	1-3-6	3-4-9	4-6-12	5-7-15	6-9-16	7-10-17	8-12-19	9-13-20	10-15-21	
Length = 60 in. Inlet = 10 in.	Total Pressure (in. w.g.)	0.047	0.106	0.188	0.294	0.423	0.576				
	Static Pressure (in. w.g.)	0.045	0.100	0.178	0.278	0.401	0.546				
	Flow Rate (cfm)	109	164	218	273	327	382				
	Sound (NC)	-	26	36	45	51	57				
	Throw (ft.)	3-5-9	5-7-14	6-9-16	8-11-18	9-14-20	11-15-22				
Length = 60 in. Inlet = 12 in.	Total Pressure (in. w.g.)	0.085	0.191	0.340	0.532						
	Static Pressure (in. w.g.)	0.083	0.186	0.330	0.516						
	Flow Rate (cfm)	157	236	314	393						
	Sound (NC)	23	38	48	57						
	Throw (ft.)	4-7-13	7-10-17	9-13-20	11-16-22						

Performance Notes:

- Tested in accordance with ASHRAE Standard 70 – 2023 Method of Testing for Rating the Performance of Air Outlets and Inlets.
- Airflow is in cubic feet per minute [cfm].
- NC, sound pressure levels, are based on a room absorption of 10 dB re 10⁻¹² Watts, and a single diffuser/grille.
- Blanks "-" indicate an NC level below 15.
- All pressures are in inches of water column [in. w.g.].
- Pressures not listed can be calculated using the following formula:
 $P_{total} = P_{static} + P_{velocity}$
- Throw data is based on supply air and room air being at isothermal conditions.
- Throw data is given in feet [ft] to terminal velocities of:
150 fpm (minimum)
100 fpm (middle)
50 fpm (maximum)
- Blank area outside recommended operating range.
- Does not include effects of ceiling radiation damper (TBD3-FR).

PERFORMANCE DATA

TBD3 – Ice-Tong Pattern Controller, 1 Slot (continued)

Model TBD3100 1 in. Slot Width

Length = 24 in. Inlet = 6 in.	Total Pressure (in. w.g.)	0.026	0.057	0.102	0.159	0.230	0.313	0.408	0.517	0.638	
	Static Pressure (in. w.g.)	0.023	0.052	0.092	0.144	0.207	0.282	0.368	0.466	0.575	
	Flow Rate (cfm)	39	59	78	98	118	137	157	176	196	
	Sound (NC)	-	-	16	25	31	37	42	46	50	
	Throw (ft.)	2-5-12	5-9-18	8-12-22	10-15-25	12-18-27	14-20-30	16-22-32	18-24-34	19-25-35	
Length = 24 in. Inlet = 8 in.	Total Pressure (in. w.g.)	0.055	0.124	0.221	0.345	0.496	0.676				
	Static Pressure (in. w.g.)	0.053	0.119	0.211	0.329	0.474	0.645				
	Flow Rate (cfm)	70	105	140	175	209	244				
	Sound (NC)	-	20	30	39	45	51				
	Throw (ft.)	7-10-21	10-16-26	14-21-30	17-24-33	21-26-37	23-28-39				
Length = 24 in. Inlet = 10 in.	Total Pressure (in. w.g.)	0.107	0.240	0.427							
	Static Pressure (in. w.g.)	0.104	0.234	0.417							
	Flow Rate (cfm)	109	164	218							
	Sound (NC)	17	32	42							
	Throw (ft.)	11-16-26	16-23-32	22-26-37							
Length = 48 in. Inlet = 6 in.	Total Pressure (in. w.g.)	0.011	0.026	0.046	0.071	0.102	0.139	0.182	0.231	0.285	0.410
	Static Pressure (in. w.g.)	0.009	0.020	0.036	0.056	0.080	0.109	0.142	0.180	0.222	0.320
	Flow Rate (cfm)	39	59	78	98	118	137	157	176	196	235
	Sound (NC)	-	-	-	-	17	23	28	32	36	43
	Throw (ft.)	1-1-5	1-3-8	2-5-10	4-6-13	5-8-15	6-9-18	7-10-20	8-12-21	9-13-22	10-15-24
Length = 48 in. Inlet = 8 in.	Total Pressure (in. w.g.)	0.022	0.050	0.088	0.138	0.199	0.271	0.353	0.447	0.552	
	Static Pressure (in. w.g.)	0.020	0.044	0.078	0.122	0.176	0.240	0.313	0.397	0.490	
	Flow Rate (cfm)	70	105	140	175	209	244	279	314	349	
	Sound (NC)	-	-	-	22	29	35	39	44	48	
	Throw (ft.)	2-4-9	4-7-14	6-9-18	8-11-21	9-14-23	11-16-25	12-18-26	14-20-28	15-21-30	
Length = 48 in. Inlet = 10 in.	Total Pressure (in. w.g.)	0.039	0.088	0.157	0.245	0.353	0.480	0.627			
	Static Pressure (in. w.g.)	0.037	0.083	0.147	0.229	0.330	0.449	0.587			
	Flow Rate (cfm)	109	164	218	273	327	382	436			
	Sound (NC)	-	-	24	32	39	45	50			
	Throw (ft.)	4-7-14	7-11-20	10-14-23	12-18-26	14-20-29	17-22-31	19-23-33			
Length = 48 in. Inlet = 12 in.	Total Pressure (in. w.g.)	0.065	0.147	0.261	0.408	0.588					
	Static Pressure (in. w.g.)	0.063	0.141	0.251	0.392	0.565					
	Flow Rate (cfm)	157	236	314	393	471					
	Sound (NC)	-	23	33	42	48					
	Throw (ft.)	7-10-20	10-15-24	14-20-28	17-22-31	20-24-34					
Length = 60 in. Inlet = 6 in.	Total Pressure (in. w.g.)	0.009	0.020	0.036	0.056	0.081	0.110	0.144	0.183	0.225	0.325
	Static Pressure (in. w.g.)	0.007	0.015	0.026	0.041	0.059	0.080	0.104	0.132	0.163	0.235
	Flow Rate (cfm)	39	59	78	98	118	137	157	176	196	235
	Sound (NC)	-	-	-	-	-	18	23	28	32	38
	Throw (ft.)	0-1-2	1-1-4	1-2-6	2-4-7	2-4-9	3-5-10	4-6-12	4-7-13	5-7-15	6-9-17
Length = 60 in. Inlet = 8 in.	Total Pressure (in. w.g.)	0.017	0.038	0.068	0.106	0.152	0.207	0.271	0.343	0.423	0.609
	Static Pressure (in. w.g.)	0.014	0.032	0.058	0.090	0.130	0.177	0.231	0.292	0.361	0.519
	Flow Rate (cfm)	70	105	140	175	209	244	279	314	349	419
	Sound (NC)	-	-	-	17	24	30	35	39	43	50
	Throw (ft.)	1-2-5	2-4-8	3-5-10	4-7-13	5-8-16	6-9-17	7-10-19	8-12-20	9-13-21	10-16-23
Length = 60 in. Inlet = 10 in.	Total Pressure (in. w.g.)	0.029	0.066	0.117	0.183	0.263	0.358	0.467	0.591		
	Static Pressure (in. w.g.)	0.027	0.060	0.107	0.167	0.240	0.327	0.427	0.541		
	Flow Rate (cfm)	109	164	218	273	327	382	436	491		
	Sound (NC)	-	-	19	27	34	40	44	49		
	Throw (ft.)	2-4-8	4-6-12	5-8-16	7-10-18	8-12-20	9-14-22	11-16-23	12-17-25		
Length = 60 in. Inlet = 12 in.	Total Pressure	0.048	0.107	0.190	0.297	0.428	0.583				
	Static Pressure	0.045	0.101	0.180	0.282	0.406	0.552				
	Flow Rate	157	236	314	393	471	550				
	Sound (NC)	-	17	28	36	43	48				
	Throw 150,100,50	4-6-12	6-9-17	8-12-20	10-15-22	12-17-24	14-18-26				

Performance Notes:

- Tested in accordance with ASHRAE Standard 70 – 2023 Method of Testing for Rating the Performance of Air Outlets and Inlets.
- Airflow is in cubic feet per minute [cfm].
- NC, sound pressure levels, are based on a room absorption of 10 dB re 10⁻¹² Watts, and a single diffuser/grille.
- Blanks “-” indicate an NC level below 15.
- All pressures are in inches of water column [in. w.g.].
- Pressures not listed can be calculated using the following formula:
P_{total} = P_{static} + P_{velocity}
- Throw data is based on supply air and room air being at isothermal conditions.
- Throw data is given in feet [ft] to terminal velocities of:
150 fpm (minimum)
100 fpm (middle)
50 fpm (maximum)
- Blank area outside recommended operating range.
- Does not include effects of ceiling radiation damper (TBD3-FR).

PERFORMANCE DATA

TBD3 – Ice-Tong Pattern Controller, 2 Slot

Model TBD350 1/2 in. Slot Width

Length = 24 in. Inlet = 6 in.	Total Pressure (in. w.g.)	0.045	0.080	0.124	0.179	0.244	0.319	0.403	0.498		
	Static Pressure (in. w.g.)	0.039	0.070	0.109	0.157	0.213	0.279	0.353	0.436		
	Flow Rate (cfm)	59	78	98	118	137	157	176	196		
	Sound (NC)	-	20	28	34	39	43	47	50		
	Throw (ft.)	7-11-19	10-14-22	12-18-25	14-19-27	17-21-30	18-22-32	19-24-34	20-25-35		
Length = 24 in. Inlet = 8 in.	Total Pressure (in. w.g.)	0.100	0.178	0.278	0.401						
	Static Pressure (in. w.g.)	0.095	0.168	0.263	0.378						
	Flow Rate (cfm)	105	140	175	209						
	Sound (NC)	23	32	39	45						
	Throw (ft.)	10-16-26	14-21-30	17-24-33	21-26-37						
Length = 24 in. Inlet = 10 in.	Total Pressure (in. w.g.)	0.207	0.367	0.574							
	Static Pressure (in. w.g.)	0.201	0.357	0.558							
	Flow Rate (cfm)	164	218	273							
	NC	33	43	50							
	Throw (ft.)	16-23-32	22-26-37	24-29-42							
Length = 48 in. Inlet = 6 in.	Total Pressure (in. w.g.)		0.039	0.061	0.088	0.120	0.157	0.199	0.245	0.353	0.480
	Static Pressure (in. w.g.)		0.029	0.046	0.066	0.090	0.117	0.148	0.183	0.263	0.358
	Flow Rate (cfm)		78	98	118	137	157	176	196	235	274
	Sound (NC)		-	17	23	28	32	36	40	46	51
	Throw (ft.)		2-5-10	4-6-13	5-8-15	6-9-18	7-10-20	8-12-21	9-13-22	10-15-24	12-18-26
Length = 48 in. Inlet = 8 in.	Total Pressure (in. w.g.)	0.039	0.069	0.108	0.156	0.212	0.277	0.351	0.433	0.624	
	Static Pressure (in. w.g.)	0.033	0.059	0.093	0.133	0.182	0.237	0.300	0.371	0.534	
	Flow Rate (cfm)	105	140	175	209	244	279	314	349	419	
	Sound (NC)	-	18	25	31	37	41	45	48	54	
	Throw (ft.)	4-7-14	6-9-18	8-11-21	9-14-23	11-16-25	12-18-26	14-20-28	15-21-30	18-23-32	
Length = 48 in. Inlet = 10 in.	Total Pressure (in. w.g.)	0.069	0.124	0.193	0.278	0.378	0.494	0.625			
	Static Pressure (in. w.g.)	0.064	0.114	0.177	0.256	0.348	0.454	0.575			
	Flow Rate (cfm)	164	218	273	327	382	436	491			
	Sound (NC)	17	27	34	40	45	50	53			
	Throw (ft.)	7-11-20	10-14-23	12-18-26	14-20-29	17-22-31	19-23-33	20-25-35			
Length = 48 in. Inlet = 12 in.	Total Pressure (in. w.g.)	0.120	0.214	0.334	0.482	0.655					
	Static Pressure (in. w.g.)	0.115	0.204	0.319	0.459	0.625					
	Flow Rate (cfm)	236	314	393	471	550					
	Sound (NC)	25	35	42	48	53					
	Throw (ft.)	10-15-24	14-20-28	17-22-31	20-24-34	21-26-37					
Length = 60 in. Inlet = 6 in.	Total Pressure (in. w.g.)		0.033	0.052	0.075	0.102	0.133	0.168	0.208	0.299	0.407
	Static Pressure (in. w.g.)		0.023	0.036	0.052	0.071	0.093	0.118	0.145	0.209	0.285
	Flow Rate (cfm)		78	98	118	137	157	176	196	235	274
	Sound (NC)		-	-	21	26	30	34	37	43	48
	Throw (ft.)		1-2-6	2-4-7	2-4-9	3-5-10	4-6-12	4-7-13	5-7-15	6-9-17	7-10-18
Length = 60 in. Inlet = 8 in.	Total Pressure (in. w.g.)	0.031	0.054	0.085	0.122	0.166	0.217	0.275	0.339	0.488	0.664
	Static Pressure (in. w.g.)	0.025	0.044	0.069	0.100	0.136	0.177	0.224	0.277	0.398	0.542
	Flow Rate (cfm)	105	140	175	209	244	279	314	349	419	489
	Sound (NC)	-	-	22	28	33	37	41	45	51	56
	Throw (ft.)	2-4-8	3-5-10	4-7-13	5-8-16	6-9-17	7-10-19	8-12-20	9-13-21	10-16-23	12-17-25
Length = 60 in. Inlet = 10 in.	Total Pressure (in. w.g.)	0.051	0.091	0.142	0.205	0.279	0.365	0.462	0.570		
	Static Pressure (in. w.g.)	0.046	0.081	0.127	0.183	0.249	0.325	0.411	0.508		
	Flow Rate (cfm)	164	218	273	327	382	436	491	545		
	Sound (NC)	-	22	30	36	41	45	49	52		
	Throw (ft.)	4-6-12	5-8-16	7-10-18	8-12-20	9-14-22	11-16-23	12-17-25	14-18-26		
Length = 60 in. Inlet = 12 in.	Total Pressure	0.085	0.152	0.237	0.342	0.465	0.607				
	Static Pressure	0.080	0.142	0.222	0.319	0.434	0.567				
	Flow Rate	236	314	393	471	550	628				
	NC	20	30	37	43	48	53				
	Throw 150,100,50	6-9-17	8-12-20	10-15-22	12-17-24	14-18-26	16-20-28				

Performance Notes:

- Tested in accordance with ASHRAE Standard 70 – 2023 Method of Testing for Rating the Performance of Air Outlets and Inlets.
- Airflow is in cubic feet per minute [cfm].
- NC, sound pressure levels, are based on a room absorption of 10 dB re 10⁻¹² Watts, and a single diffuser/grille.
- Blanks "-" indicate an NC level below 15.
- All pressures are in inches of water column [in. w.g.].
- Pressures not listed can be calculated using the following formula:
P_{total} = P_{static} + P_{velocity}
- Throw data is based on supply air and room air being at isothermal conditions.
- Throw data is given in feet [ft] to terminal velocities of:
150 fpm (minimum)
100 fpm (middle)
50 fpm (maximum)
- Blank area outside recommended operating range.
- Does not include effects of ceiling radiation damper (TBD3-FR).

PERFORMANCE DATA

TBD3 – Ice-Tong Pattern Controller, 2 Slot (continued)

Model TBD375 3/4 in. Slot Width

Length = 24 in. Inlet = 6 in.	Total Pressure (in. w.g.)	0.032	0.057	0.090	0.129	0.176	0.229	0.290	0.358	0.516	
	Static Pressure (in. w.g.)	0.027	0.047	0.074	0.107	0.145	0.189	0.240	0.296	0.426	
	Flow Rate (cfm)	59	78	98	118	137	157	176	196	235	
	Sound (NC)	-	-	20	27	33	38	42	46	53	
	Throw (ft.)	3-7-15	6-10-20	8-13-25	10-15-27	12-18-30	13-20-32	15-23-34	17-25-35	20-27-39	
Length = 24 in. Inlet = 8 in.	Total Pressure (in. w.g.)	0.075	0.133	0.208	0.299	0.408	0.532	0.674			
	Static Pressure (in. w.g.)	0.069	0.123	0.192	0.277	0.377	0.492	0.623			
	Flow Rate (cfm)	105	140	175	209	244	279	314			
	Sound (NC)	19	29	37	44	50	55	59			
	Throw (ft.)	9-13-26	12-18-30	15-22-33	18-26-37	21-28-39	24-30-42	26-32-45			
Length = 24 in. Inlet = 10 in.	Total Pressure (in. w.g.)	0.151	0.269	0.421	0.606						
	Static Pressure (in. w.g.)	0.146	0.259	0.405	0.584						
	Flow Rate (cfm)	164	218	273	327						
	Sound (NC)	33	44	52	59						
	Throw (ft.)	14-21-32	19-26-37	23-29-42	26-32-46						
Length = 48 in. Inlet = 6 in.	Total Pressure (in. w.g.)		0.023	0.036	0.052	0.070	0.092	0.116	0.143	0.206	0.281
	Static Pressure (in. w.g.)		0.013	0.020	0.029	0.040	0.052	0.066	0.081	0.117	0.159
	Flow Rate (cfm)		78	98	118	137	157	176	196	235	274
	Sound (NC)		-	-	-	-	19	23	27	34	40
	Throw (ft.)		1-3-9	2-5-11	3-7-13	4-8-15	5-9-17	7-10-20	7-11-22	9-13-24	10-15-26
Length = 48 in. Inlet = 8 in.	Total Pressure (in. w.g.)	0.027	0.049	0.076	0.110	0.150	0.195	0.247	0.305	0.440	0.598
	Static Pressure (in. w.g.)	0.022	0.039	0.061	0.087	0.119	0.155	0.197	0.243	0.350	0.476
	Flow Rate (cfm)	105	140	175	209	244	279	314	349	419	489
	Sound (NC)	-	-	17	24	29	34	39	43	49	55
	Throw (ft.)	2-5-12	4-8-16	6-10-19	8-12-23	9-14-25	10-16-26	12-17-28	13-19-30	16-23-32	18-25-35
Length = 48 in. Inlet = 10 in.	Total Pressure (in. w.g.)	0.052	0.092	0.144	0.207	0.281	0.367	0.465	0.574		
	Static Pressure (in. w.g.)	0.046	0.082	0.128	0.184	0.251	0.328	0.415	0.512		
	Flow Rate (cfm)	164	218	273	327	382	436	491	545		
	Sound (NC)	-	22	30	37	42	47	52	55		
	Throw (ft.)	6-9-18	8-12-23	10-15-26	12-18-29	14-21-31	16-23-33	18-25-35	20-26-37		
Length = 48 in. Inlet = 12 in.	Total Pressure (in. w.g.)	0.090	0.160	0.249	0.359	0.489	0.638				
	Static Pressure (in. w.g.)	0.084	0.150	0.234	0.336	0.458	0.598				
	Flow Rate (cfm)	236	314	393	471	550	628				
	Sound (NC)	22	33	41	48	54	59				
	Throw (ft.)	9-13-24	12-17-28	15-22-31	17-24-34	20-26-37	23-28-40				
Length = 60 in. Inlet = 6 in.	Total Pressure (in. w.g.)		0.017	0.027	0.039	0.053	0.069	0.088	0.108	0.156	0.213
	Static Pressure (in. w.g.)		0.007	0.012	0.017	0.023	0.030	0.037	0.046	0.066	0.090
	Flow Rate (cfm)		78	98	118	137	157	176	196	235	274
	Sound (NC)		-	-	-	-	-	18	22	28	34
	Throw (ft.)		1-1-5	1-2-6	1-3-7	2-4-9	2-5-10	3-6-11	4-6-12	5-7-15	6-9-17
Length = 60 in. Inlet = 8 in.	Total Pressure (in. w.g.)	0.020	0.036	0.057	0.081	0.111	0.145	0.183	0.226	0.326	0.443
	Static Pressure (in. w.g.)	0.015	0.026	0.041	0.059	0.080	0.105	0.133	0.164	0.236	0.321
	Flow Rate (cfm)	105	140	175	209	244	279	314	349	419	489
	Sound (NC)	-	-	-	18	23	28	33	36	43	49
	Throw (ft.)	1-2-7	2-4-9	3-5-11	4-7-13	5-8-15	6-9-18	7-10-20	7-11-21	9-13-23	10-15-25
Length = 60 in. Inlet = 10 in.	Total Pressure (in. w.g.)	0.037	0.067	0.104	0.150	0.204	0.266	0.337	0.416	0.599	
	Static Pressure (in. w.g.)	0.032	0.057	0.088	0.127	0.173	0.226	0.287	0.354	0.509	
	Flow Rate (cfm)	164	218	273	327	382	436	491	545	654	
	Sound (NC)	-	15	23	30	36	41	45	49	56	
	Throw (ft.)	3-5-10	5-7-14	6-9-17	7-10-20	8-12-22	9-14-23	10-15-25	11-17-26	14-20-28	
Length = 60 in. Inlet = 12 in.	Total Pressure (in. w.g.)	0.064	0.113	0.177	0.255	0.347	0.454	0.574			
	Static Pressure (in. w.g.)	0.058	0.103	0.162	0.233	0.317	0.414	0.524			
	Flow Rate (cfm)	236	314	393	471	550	628	707			
	Sound (NC)	15	26	34	41	47	52	56			
	Throw (ft.)	5-7-15	7-10-20	8-12-22	10-15-24	11-17-26	13-20-28	15-21-30			

Performance Notes:

- Tested in accordance with ASHRAE Standard 70 – 2023 Method of Testing for Rating the Performance of Air Outlets and Inlets.
- Airflow is in cubic feet per minute [cfm].
- NC, sound pressure levels, are based on a room absorption of 10 dB re 10⁻¹² Watts, and a single diffuser/grille.
- Blanks “-” indicate an NC level below 15.
- All pressures are in inches of water column [in. w.g.].
- Pressures not listed can be calculated using the following formula:
 $P_{total} = P_{static} + P_{velocity}$
- Throw data is based on supply air and room air being at isothermal conditions.
- Throw data is given in feet [ft] to terminal velocities of:
150 fpm (minimum)
100 fpm (middle)
50 fpm (maximum)
- Blank area outside recommended operating range.
- Does not include effects of ceiling radiation damper (TBD3-FR).

PERFORMANCE DATA

TBD3 – Ice-Tong Pattern Controller, 2 Slot (continued)

Model TBD3100 1 in. Slot Width

Length = 24 in. Inlet = 6 in.	Total Pressure (in. w.g.)	0.026	0.046	0.071	0.102	0.139	0.182	0.231	0.285	0.410	0.558
	Static Pressure (in. w.g.)	0.020	0.036	0.056	0.080	0.109	0.142	0.180	0.222	0.320	0.436
	Flow Rate (cfm)	59	78	98	118	137	157	176	196	235	274
	Sound (NC)	-	-	-	17	23	28	32	36	43	48
	Throw (ft.)	5-9-18	8-12-22	10-15-25	12-18-27	14-20-30	16-22-32	18-24-34	19-25-35	22-27-39	24-30-42
Length = 24 in. Inlet = 8 in.	Total Pressure (in. w.g.)	0.050	0.088	0.138	0.199	0.271	0.353	0.447	0.552		
	Static Pressure (in. w.g.)	0.044	0.078	0.122	0.176	0.240	0.313	0.397	0.490		
	Flow Rate (cfm)	105	140	175	209	244	279	314	349		
	Sound (NC)	-	-	22	29	35	39	44	48		
	Throw (ft.)	10-16-26	14-21-30	17-24-33	21-26-37	23-28-39	24-30-42	26-32-45	27-33-47		
Length = 24 in. Inlet = 10 in.	Total Pressure (in. w.g.)	0.088	0.157	0.245	0.353	0.480	0.627				
	Static Pressure (in. w.g.)	0.083	0.147	0.229	0.330	0.449	0.587				
	Flow Rate (cfm)	164	218	273	327	382	436				
	Sound (NC)	-	24	32	39	45	50				
	Throw (ft.)	16-23-32	22-26-37	24-29-42	26-32-46	28-35-49	30-37-53				
Length = 48 in. Inlet = 6 in.	Total Pressure (in. w.g.)		0.023	0.036	0.052	0.070	0.092	0.116	0.144	0.207	0.282
	Static Pressure (in. w.g.)		0.013	0.020	0.029	0.040	0.052	0.066	0.081	0.117	0.160
	Flow Rate (cfm)		78	98	118	137	157	176	196	235	274
	Sound (NC)		-	-	-	-	15	20	24	30	36
	Throw (ft.)		1-2-8	1-3-10	2-5-12	3-6-13	4-8-15	5-9-17	6-10-19	8-12-23	9-13-26
Length = 48 in. Inlet = 8 in.	Total Pressure (in. w.g.)	0.023	0.040	0.063	0.091	0.123	0.161	0.204	0.252	0.362	0.493
	Static Pressure (in. w.g.)	0.017	0.030	0.047	0.068	0.093	0.121	0.153	0.189	0.273	0.371
	Flow Rate (cfm)	105	140	175	209	244	279	314	349	419	489
	Sound (NC)	-	-	-	-	20	25	30	34	40	46
	Throw (ft.)	2-4-10	3-7-14	5-9-17	7-10-21	8-12-24	9-14-26	10-15-28	11-17-30	14-21-32	16-24-35
Length = 48 in. Inlet = 10 in.	Total Pressure (in. w.g.)	0.037	0.066	0.103	0.148	0.201	0.263	0.333	0.411	0.592	
	Static Pressure (in. w.g.)	0.031	0.056	0.087	0.126	0.171	0.223	0.283	0.349	0.502	
	Flow Rate (cfm)	164	218	273	327	382	436	491	545	654	
	Sound (NC)	-	-	17	24	29	34	39	42	49	
	Throw (ft.)	4-8-16	7-11-21	9-13-26	11-16-29	12-19-31	14-21-33	16-24-35	18-26-37	21-29-40	
Length = 48 in. Inlet = 12 in.	Total Pressure (in. w.g.)	0.057	0.102	0.160	0.230	0.313	0.409	0.517	0.639		
	Static Pressure (in. w.g.)	0.052	0.092	0.144	0.208	0.282	0.369	0.467	0.576		
	Flow Rate (cfm)	236	314	393	471	550	628	707	785		
	Sound (NC)	-	17	25	31	37	42	46	50		
	Throw (ft.)	8-12-23	10-15-28	13-19-31	15-23-34	18-26-37	21-28-40	23-30-42	26-31-44		
Length = 60 in. Inlet = 6 in.	Total Pressure (in. w.g.)		0.019	0.030	0.043	0.058	0.076	0.096	0.118	0.170	0.232
	Static Pressure (in. w.g.)		0.009	0.014	0.020	0.027	0.036	0.045	0.056	0.081	0.110
	Flow Rate (cfm)		78	98	118	137	157	176	196	235	274
	Sound (NC)		-	-	-	-	-	16	20	27	32
	Throw (ft.)		0-1-4	1-1-5	1-2-6	1-3-8	2-4-9	2-5-10	3-5-11	4-6-13	5-8-15
Length = 60 in. Inlet = 8 in.	Total Pressure (in. w.g.)	0.018	0.032	0.050	0.072	0.098	0.128	0.163	0.201	0.289	0.393
	Static Pressure (in. w.g.)	0.012	0.022	0.035	0.050	0.068	0.089	0.112	0.138	0.199	0.271
	Flow Rate (cfm)	105	140	175	209	244	279	314	349	419	489
	Sound (NC)	-	-	-	-	16	21	26	30	36	42
	Throw (ft.)	1-2-6	1-3-8	2-5-10	3-6-12	4-7-13	5-8-15	6-9-17	8-10-19	10-12-23	12-15-25
Length = 60 in. Inlet = 10 in.	Total Pressure (in. w.g.)	0.029	0.051	0.080	0.115	0.157	0.205	0.259	0.320	0.460	0.626
	Static Pressure (in. w.g.)	0.023	0.041	0.064	0.093	0.126	0.165	0.208	0.257	0.370	0.504
	Flow Rate (cfm)	164	218	273	327	382	436	491	545	654	763
	Sound (NC)	-	-	-	19	25	30	34	38	45	50
	Throw (ft.)	2-4-9	3-6-12	5-8-15	6-9-18	7-11-21	8-12-23	9-14-25	10-15-26	12-18-28	14-21-31
Length = 60 in. Inlet = 12 in.	Total Pressure (in. w.g.)	0.044	0.078	0.121	0.175	0.238	0.311	0.394	0.486		
	Static Pressure (in. w.g.)	0.038	0.068	0.106	0.152	0.208	0.271	0.343	0.424		
	Flow Rate (cfm)	236	314	393	471	550	628	707	785		
	Sound (NC)	-	-	20	27	32	37	42	45		
	Throw (ft.)	4-6-13	6-9-17	7-11-22	9-13-24	10-15-26	12-17-28	13-19-30	14-22-31		

Performance Notes:

- Tested in accordance with ASHRAE Standard 70 – 2023 Method of Testing for Rating the Performance of Air Outlets and Inlets.
- Airflow is in cubic feet per minute [cfm].
- NC, sound pressure levels, are based on a room absorption of 10 dB re 10⁻¹² Watts, and a single diffuser/grille.
- Blanks "-" indicate an NC level below 15.
- All pressures are in inches of water column [in. w.g.].
- Pressures not listed can be calculated using the following formula:
P_{total} = P_{static} + P_{velocity}
- Throw data is based on supply air and room air being at isothermal conditions.
- Throw data is given in feet [ft] to terminal velocities of:
150 fpm (minimum)
100 fpm (middle)
50 fpm (maximum)
- Blank area outside recommended operating range.
- Does not include effects of ceiling radiation damper (TBD3-FR).

PERFORMANCE DATA

TBD3 – Ice-Tong Pattern Controller, 3 Slot

Model TBD350 1/2 in. Slot Width

Length = 24 in. Inlet = 6 in.	Total Pressure (in. w.g.)	0.029	0.051	0.079	0.114	0.155	0.203	0.257	0.317	0.457	0.622
	Static Pressure (in. w.g.)	0.023	0.041	0.064	0.092	0.125	0.163	0.206	0.255	0.367	0.499
	Flow Rate (cfm)	59	78	98	118	137	157	176	196	235	274
	Sound (NC)	-	-	21	27	32	36	40	44	50	55
	Throw (ft.)	3-7-15	6-10-20	8-13-25	10-15-27	12-18-30	13-20-32	15-23-34	17-25-35	20-27-39	24-30-42
Length = 24 in. Inlet = 8 in.	Total Pressure (in. w.g.)	0.056	0.099	0.155	0.224	0.304	0.397	0.503	0.621		
	Static Pressure (in. w.g.)	0.050	0.089	0.140	0.201	0.274	0.358	0.452	0.559		
	Flow Rate (cfm)	105	140	175	209	244	279	314	349		
	Sound (NC)	-	23	31	37	42	46	50	54		
	Throw (ft.)	9-13-26	12-18-30	15-22-33	18-26-37	21-28-39	24-30-42	26-32-45	27-33-47		
Length = 24 in. Inlet = 10 in.	Total Pressure (in. w.g.)	0.107	0.190	0.296	0.427	0.581					
	Static Pressure (in. w.g.)	0.101	0.180	0.281	0.404	0.550					
	Flow Rate (cfm)	164	218	273	327	382					
	Sound (NC)	24	33	40	46	51					
	Throw (ft.)	14-21-32	19-26-37	23-29-42	26-32-46	28-35-49					
Length = 48 in. Inlet = 6 in.	Total Pressure (in. w.g.)		0.030	0.046	0.067	0.091	0.119	0.150	0.185	0.267	0.363
	Static Pressure (in. w.g.)		0.020	0.031	0.044	0.060	0.079	0.100	0.123	0.177	0.241
	Flow Rate (cfm)		78	98	118	137	157	176	196	235	274
	Sound (NC)		-	-	19	24	28	32	36	42	47
	Throw (ft.)		1-3-9	2-5-11	3-7-13	4-8-15	5-9-17	7-10-20	7-11-22	9-13-24	10-15-26
Length = 48 in. Inlet = 8 in.	Total Pressure (in. w.g.)		0.045	0.071	0.102	0.139	0.182	0.230	0.284	0.409	0.557
	Static Pressure (in. w.g.)		0.035	0.055	0.080	0.109	0.142	0.180	0.222	0.319	0.434
	Flow Rate (cfm)		140	175	209	244	279	314	349	419	489
	Sound (NC)		-	19	25	30	35	39	42	48	53
	Throw (ft.)		4-8-16	6-10-19	8-12-23	9-14-25	10-16-26	12-17-28	13-19-30	16-23-32	18-25-35
Length = 48 in. Inlet = 10 in.	Total Pressure (in. w.g.)	0.041	0.073	0.114	0.163	0.223	0.291	0.368	0.454	0.654	
	Static Pressure (in. w.g.)	0.035	0.063	0.098	0.141	0.192	0.251	0.317	0.392	0.564	
	Flow Rate (cfm)	164	218	273	327	382	436	491	545	654	
	Sound (NC)	-	19	26	32	37	42	46	49	55	
	Throw (ft.)	6-9-18	8-12-23	10-15-26	12-18-29	14-21-31	16-23-33	18-25-35	20-26-37	23-29-40	
Length = 48 in. Inlet = 12 in.	Total Pressure (in. w.g.)	0.066	0.117	0.182	0.263	0.357	0.467	0.591			
	Static Pressure (in. w.g.)	0.060	0.107	0.167	0.240	0.327	0.427	0.540			
	Flow Rate (cfm)	236	314	393	471	550	628	707			
	Sound (NC)	16	26	33	39	44	49	53			
	Throw (ft.)	9-13-24	12-17-28	15-22-31	17-24-34	20-26-37	23-28-40	24-30-42			
Length = 60 in. Inlet = 6 in.	Total Pressure (in. w.g.)		0.026	0.041	0.059	0.081	0.106	0.134	0.165	0.237	0.323
	Static Pressure (in. w.g.)		0.016	0.026	0.037	0.050	0.066	0.083	0.103	0.148	0.201
	Flow Rate (cfm)		78	98	118	137	157	176	196	235	274
	Sound (NC)		-	-	17	22	27	30	34	40	45
	Throw (ft.)		1-1-5	1-2-6	1-3-7	2-4-9	2-5-10	3-6-11	4-6-12	5-7-15	6-9-17
Length = 60 in. Inlet = 8 in.	Total Pressure (in. w.g.)		0.038	0.059	0.085	0.115	0.151	0.191	0.235	0.339	0.461
	Static Pressure (in. w.g.)		0.028	0.043	0.062	0.085	0.111	0.140	0.173	0.249	0.339
	Flow Rate (cfm)		140	175	209	244	279	314	349	419	489
	Sound (NC)		-	16	22	27	32	36	39	45	50
	Throw (ft.)		2-4-9	3-5-11	4-7-13	5-8-15	6-9-18	7-10-20	7-11-21	9-13-23	10-15-25
Length = 60 in. Inlet = 10 in.	Total Pressure (in. w.g.)	0.032	0.057	0.088	0.127	0.173	0.226	0.286	0.353	0.509	
	Static Pressure (in. w.g.)	0.026	0.047	0.073	0.105	0.143	0.186	0.236	0.291	0.419	
	Flow Rate (cfm)	164	218	273	327	382	436	491	545	654	
	Sound (NC)	-	15	22	28	34	38	42	45	51	
	Throw (ft.)	3-5-10	5-7-14	6-9-17	7-10-20	8-12-22	9-14-23	10-15-25	11-17-26	14-20-28	
Length = 60 in. Inlet = 12 in.	Total Pressure (in. w.g.)	0.049	0.087	0.135	0.195	0.265	0.346	0.438	0.541		
	Static Pressure (in. w.g.)	0.043	0.077	0.120	0.172	0.234	0.306	0.388	0.479		
	Flow Rate (cfm)	236	314	393	471	550	628	707	785		
	Sound (NC)	-	21	29	35	40	44	48	52		
	Throw (ft.)	5-7-15	7-10-20	8-12-22	10-15-24	11-17-26	13-20-28	15-21-30	16-22-31		

Performance Notes:

1. Tested in accordance with ASHRAE Standard 70 – 2023 Method of Testing for Rating the Performance of Air Outlets and Inlets.
2. Airflow is in cubic feet per minute [cfm].
3. NC, sound pressure levels, are based on a room absorption of 10 dB re 10⁻¹² Watts, and a single diffuser/grille.
4. Blanks "-" indicate an NC level below 15.
5. All pressures are in inches of water column [in. w.g.].
6. Pressures not listed can be calculated using the following formula:
 $P_{total} = P_{static} + P_{velocity}$
7. Throw data is based on supply air and room air being at isothermal conditions.
8. Throw data is given in feet [ft] to terminal velocities of:
150 fpm (minimum)
100 fpm (middle)
50 fpm (maximum)
9. Blank area outside recommended operating range.
10. Does not include effects of ceiling radiation damper (TBD3-FR).

PERFORMANCE DATA

TBD3 – Ice-Tong Pattern Controller, 3 Slot (continued)

Model TBD375 3/4 in. Slot Width

Length = 24 in. Inlet = 6 in.	Total Pressure (in. w.g.)	0.019	0.033	0.052	0.075	0.102	0.133	0.168	0.207	0.299	0.406
	Static Pressure (in. w.g.)	0.013	0.023	0.036	0.052	0.071	0.093	0.117	0.145	0.209	0.284
	Flow Rate (cfm)	59	78	98	118	137	157	176	196	235	274
	Sound (NC)	-	-	-	16	22	26	31	35	41	47
	Throw (ft.)	2-4-13	3-8-17	5-11-22	8-13-26	10-15-30	11-17-32	13-19-34	14-22-35	17-26-39	20-30-42
Length = 24 in. Inlet = 8 in.	Total Pressure (in. w.g.)	0.041	0.073	0.114	0.164	0.224	0.292	0.370	0.457	0.657	
	Static Pressure (in. w.g.)	0.035	0.063	0.099	0.142	0.193	0.252	0.319	0.394	0.568	
	Flow Rate (cfm)	105	140	175	209	244	279	314	349	419	
	Sound (NC)	-	17	25	32	38	43	47	51	58	
	Throw (ft.)	6-12-23	10-15-30	13-19-33	15-23-37	18-27-39	20-30-42	23-32-45	26-33-47	30-37-52	
Length = 24 in. Inlet = 10 in.	Total Pressure (in. w.g.)	0.080	0.142	0.221	0.318	0.434	0.566				
	Static Pressure (in. w.g.)	0.074	0.132	0.206	0.296	0.403	0.526				
	Flow Rate (cfm)	164	218	273	327	382	436				
	Sound (NC)	20	30	39	45	51	56				
	Throw (ft.)	12-18-32	16-24-37	20-29-42	24-32-46	28-35-49	30-37-53				
Length = 48 in. Inlet = 6 in.	Total Pressure (in. w.g.)		0.014	0.022	0.031	0.043	0.056	0.070	0.087	0.125	0.170
	Static Pressure (in. w.g.)		0.004	0.006	0.009	0.012	0.016	0.020	0.024	0.035	0.048
	Flow Rate (cfm)		78	98	118	137	157	176	196	235	274
	Sound (NC)		-	-	-	-	-	-	17	24	29
	Throw (ft.)		1-2-7	1-3-9	2-4-11	2-5-13	3-7-15	4-8-16	5-9-18	7-11-22	9-13-26
Length = 48 in. Inlet = 8 in.	Total Pressure (in. w.g.)		0.029	0.045	0.064	0.087	0.114	0.144	0.178	0.257	0.349
	Static Pressure (in. w.g.)		0.019	0.029	0.042	0.057	0.074	0.094	0.116	0.167	0.227
	Flow Rate (cfm)		140	175	209	244	279	314	349	419	489
	Sound (NC)		-	-	-	18	23	28	32	38	44
	Throw (ft.)		3-6-13	4-8-16	6-10-19	8-11-23	9-13-26	10-15-28	11-16-30	13-19-32	15-23-35
Length = 48 in. Inlet = 10 in.	Total Pressure (in. w.g.)	0.029	0.052	0.081	0.116	0.158	0.206	0.261	0.323	0.465	0.632
	Static Pressure (in. w.g.)	0.023	0.042	0.065	0.094	0.128	0.167	0.211	0.260	0.375	0.510
	Flow Rate (cfm)	164	218	273	327	382	436	491	545	654	763
	Sound (NC)	-	-	18	25	31	36	40	44	50	56
	Throw (ft.)	3-8-15	6-10-20	8-13-25	10-15-29	12-18-31	14-20-33	15-23-35	17-25-37	20-29-40	24-31-44
Length = 48 in. Inlet = 12 in.	Total Pressure (in. w.g.)	0.049	0.087	0.135	0.195	0.265	0.346	0.438	0.541		
	Static Pressure (in. w.g.)	0.043	0.077	0.120	0.172	0.235	0.306	0.388	0.479		
	Flow Rate (cfm)	236	314	393	471	550	628	707	785		
	Sound (NC)	-	20	29	35	41	46	50	54		
	Throw (ft.)	9-13-24	12-17-28	15-22-31	17-24-34	20-26-37	23-28-40	24-30-42	26-31-44		
Length = 60 in. Inlet = 6 in.	Total Pressure (in. w.g.)		0.011	0.017	0.024	0.033	0.043	0.054	0.066	0.096	0.130
	Static Pressure (in. w.g.)		0.001	0.001	0.001	0.002	0.003	0.003	0.004	0.006	0.008
	Flow Rate (cfm)		78	98	118	137	157	176	196	235	274
	Sound (NC)		-	-	-	-	-	-	-	18	24
	Throw (ft.)		0-1-3	1-1-5	1-2-6	1-2-7	1-3-8	2-4-9	2-5-10	3-6-12	4-7-14
Length = 60 in. Inlet = 8 in.	Total Pressure (in. w.g.)		0.021	0.034	0.048	0.066	0.086	0.109	0.134	0.193	0.263
	Static Pressure (in. w.g.)		0.012	0.018	0.026	0.035	0.046	0.058	0.072	0.104	0.141
	Flow Rate (cfm)		140	175	209	244	279	314	349	419	489
	Sound (NC)		-	-	-	-	18	22	26	33	38
	Throw (ft.)		1-3-7	2-4-9	3-5-11	3-6-13	5-7-15	5-8-16	6-9-18	7-11-22	9-13-25
Length = 60 in. Inlet = 10 in.	Total Pressure (in. w.g.)	0.021	0.038	0.060	0.086	0.117	0.153	0.193	0.239	0.344	0.468
	Static Pressure (in. w.g.)	0.016	0.028	0.044	0.063	0.086	0.113	0.143	0.176	0.254	0.345
	Flow Rate (cfm)	164	218	273	327	382	436	491	545	654	763
	Sound (NC)	-	-	-	19	24	29	34	38	44	50
	Throw (ft.)	2-3-9	3-6-11	4-7-14	6-9-17	7-10-20	8-11-23	9-13-25	9-14-26	11-17-28	13-20-31
Length = 60 in. Inlet = 12 in.	Total Pressure (in. w.g.)	0.035	0.063	0.098	0.141	0.193	0.251	0.318	0.393	0.566	
	Static Pressure (in. w.g.)	0.030	0.053	0.083	0.119	0.162	0.212	0.268	0.331	0.476	
	Flow Rate (cfm)	236	314	393	471	550	628	707	785	942	
	Sound (NC)	-	-	22	29	35	40	44	48	54	
	Throw (ft.)	3-6-12	5-8-16	7-10-21	8-12-24	10-14-26	11-16-28	12-18-30	14-21-31	16-24-34	

Performance Notes:

- Tested in accordance with ASHRAE Standard 70 – 2023 Method of Testing for Rating the Performance of Air Outlets and Inlets.
- Airflow is in cubic feet per minute [cfm].
- NC, sound pressure levels, are based on a room absorption of 10 dB re 10⁻¹² Watts, and a single diffuser/grille.
- Blanks "-" indicate an NC level below 15.
- All pressures are in inches of water column [in. w.g.].
- Pressures not listed can be calculated using the following formula:
P_{total} = P_{static} + P_{velocity}
- Throw data is based on supply air and room air being at isothermal conditions.
- Throw data is given in feet [ft] to terminal velocities of:
150 fpm (minimum)
100 fpm (middle)
50 fpm (maximum)
- Blank area outside recommended operating range.
- Does not include effects of ceiling radiation damper (TBD3-FR).

PERFORMANCE DATA

TBD3 – Ice-Tong Pattern Controller, 3 Slot (continued)

Model TBD3100 1 in. Slot Width

Length = 24 in. Inlet = 6 in.	Total Pressure (in. w.g.)	0.017	0.030	0.047	0.068	0.092	0.120	0.152	0.188	0.271	0.369
	Static Pressure (in. w.g.)	0.011	0.020	0.031	0.045	0.062	0.080	0.102	0.126	0.181	0.246
	Flow Rate (cfm)	59	78	98	118	137	157	176	196	235	274
	Sound (NC)	-	-	-	-	15	20	24	28	35	41
	Throw (ft.)	1-3-11	2-5-15	4-9-19	5-11-23	7-13-27	10-15-31	11-17-34	13-19-35	15-23-39	18-27-42
Length = 24 in. Inlet = 8 in.	Total Pressure (in. w.g.)	0.031	0.055	0.086	0.124	0.168	0.220	0.278	0.343	0.495	
	Static Pressure (in. w.g.)	0.025	0.045	0.070	0.101	0.138	0.180	0.228	0.281	0.405	
	Flow Rate (cfm)	105	140	175	209	244	279	314	349	419	
	Sound (NC)	-	-	-	20	26	31	35	39	46	
	Throw (ft.)	4-10-20	8-14-27	11-17-33	14-20-37	16-24-39	18-27-42	20-31-45	23-33-47	27-37-52	
Length = 24 in. Inlet = 10 in.	Total Pressure (in. w.g.)	0.052	0.093	0.145	0.209	0.284	0.371	0.470	0.580		
	Static Pressure (in. w.g.)	0.047	0.083	0.129	0.186	0.254	0.331	0.419	0.518		
	Flow Rate (cfm)	164	218	273	327	382	436	491	545		
	Sound (NC)	-	-	23	30	35	40	45	49		
	Throw (ft.)	11-16-32	14-21-37	18-27-42	21-32-46	25-35-49	28-37-53	32-40-56	34-42-59		
Length = 48 in. Inlet = 6 in.	Total Pressure (in. w.g.)		0.016	0.026	0.037	0.050	0.065	0.083	0.102	0.147	0.200
	Static Pressure (in. w.g.)		0.006	0.010	0.014	0.019	0.025	0.032	0.040	0.057	0.078
	Flow Rate (cfm)		78	98	118	137	157	176	196	235	274
	Sound (NC)		-	-	-	-	-	-	17	24	30
	Throw (ft.)		1-1-5	1-2-8	1-3-10	2-4-11	2-5-13	3-6-14	3-8-16	5-10-19	7-11-22
Length = 48 in. Inlet = 8 in.	Total Pressure (in. w.g.)		0.027	0.042	0.061	0.082	0.108	0.136	0.168	0.242	0.330
	Static Pressure (in. w.g.)		0.017	0.026	0.038	0.052	0.068	0.086	0.106	0.153	0.208
	Flow Rate (cfm)		140	175	209	244	279	314	349	419	489
	Sound (NC)		-	-	-	-	18	22	26	33	39
	Throw (ft.)		2-4-11	3-6-14	4-9-17	5-10-20	7-11-23	9-13-26	9-14-28	11-17-32	13-20-35
Length = 48 in. Inlet = 10 in.	Total Pressure (in. w.g.)	0.024	0.042	0.066	0.095	0.129	0.168	0.213	0.263	0.378	0.515
	Static Pressure (in. w.g.)	0.018	0.032	0.050	0.072	0.098	0.128	0.162	0.200	0.288	0.392
	Flow Rate (cfm)	164	218	273	327	382	436	491	545	654	763
	Sound (NC)	-	-	-	16	21	26	30	34	41	47
	Throw (ft.)	2-5-13	4-9-18	6-11-22	9-13-27	10-16-31	12-18-33	13-20-35	15-22-37	18-27-40	21-31-44
Length = 48 in. Inlet = 12 in.	Total Pressure (in. w.g.)	0.035	0.063	0.098	0.141	0.192	0.251	0.318	0.392	0.565	
	Static Pressure (in. w.g.)	0.030	0.053	0.083	0.119	0.162	0.211	0.267	0.330	0.475	
	Flow Rate (cfm)	236	314	393	471	550	628	707	785	942	
	Sound (NC)	-	-	16	23	28	33	38	42	48	
	Throw (ft.)	5-10-19	9-13-26	11-16-31	13-19-34	15-22-37	17-26-40	19-29-42	21-31-44	26-34-49	
Length = 60 in. Inlet = 6 in.	Total Pressure (in. w.g.)		0.014	0.022	0.031	0.042	0.055	0.070	0.086	0.124	0.169
	Static Pressure (in. w.g.)		0.004	0.006	0.009	0.012	0.015	0.019	0.024	0.034	0.047
	Flow Rate (cfm)		78	98	118	137	157	176	196	235	274
	Sound (NC)		-	-	-	-	-	-	-	21	27
	Throw (ft.)		0-1-2	0-1-3	1-1-5	1-2-6	1-2-7	1-3-8	1-3-9	2-5-11	3-6-13
Length = 60 in. Inlet = 8 in.	Total Pressure (in. w.g.)		0.022	0.034	0.049	0.067	0.088	0.111	0.137	0.198	0.269
	Static Pressure (in. w.g.)		0.012	0.019	0.027	0.037	0.048	0.061	0.075	0.108	0.147
	Flow Rate (cfm)		140	175	209	244	279	314	349	419	489
	Sound (NC)		-	-	-	-	-	19	23	29	35
	Throw (ft.)		1-2-6	1-3-8	2-4-10	2-5-11	3-6-13	4-7-14	5-8-16	6-10-19	7-11-22
Length = 60 in. Inlet = 10 in.	Total Pressure (in. w.g.)	0.019	0.033	0.052	0.075	0.102	0.134	0.169	0.209	0.301	0.409
	Static Pressure (in. w.g.)	0.013	0.023	0.037	0.053	0.072	0.094	0.119	0.146	0.211	0.287
	Flow Rate (cfm)	164	218	273	327	382	436	491	545	654	763
	Sound (NC)	-	-	-	-	17	22	26	30	37	43
	Throw (ft.)	1-2-7	2-4-10	3-6-12	4-7-15	6-9-17	7-10-20	7-11-22	8-12-25	10-15-28	12-17-31
Length = 60 in. Inlet = 12 in.	Total Pressure (in. w.g.)	0.028	0.049	0.076	0.110	0.150	0.196	0.248	0.306	0.440	0.599
	Static Pressure (in. w.g.)	0.022	0.039	0.061	0.088	0.119	0.156	0.197	0.243	0.350	0.477
	Flow Rate (cfm)	236	314	393	471	550	628	707	785	942	1099
	Sound (NC)	-	-	-	18	24	29	33	37	44	50
	Throw (ft.)	2-5-11	4-7-14	6-9-18	7-11-22	8-13-25	10-14-28	11-16-30	12-18-31	14-22-34	17-25-37

Performance Notes:

- Tested in accordance with ASHRAE Standard 70 – 2023 Method of Testing for Rating the Performance of Air Outlets and Inlets.
- Airflow is in cubic feet per minute [cfm].
- NC, sound pressure levels, are based on a room absorption of 10 dB re 10⁻¹² Watts, and a single diffuser/grille.
- Blanks “-” indicate an NC level below 15.
- All pressures are in inches of water column [in. w.g.].
- Pressures not listed can be calculated using the following formula:
 $P_{total} = P_{static} + P_{velocity}$
- Throw data is based on supply air and room air being at isothermal conditions.
- Throw data is given in feet [ft] to terminal velocities of:
150 fpm (minimum)
100 fpm (middle)
50 fpm (maximum)
- Blank area outside recommended operating range.
- Does not include effects of ceiling radiation damper (TBD3-FR).

PERFORMANCE DATA

TBD3 – Ice-Tong Pattern Controller, 4 Slot

Model TBD350 1/2 in. Slot Width

Length = 24 in. Inlet = 6 in.	Total Pressure (in. w.g.)		0.039	0.061	0.088	0.120	0.157	0.199	0.245	0.353	0.480
	Static Pressure (in. w.g.)		0.029	0.046	0.066	0.090	0.117	0.148	0.183	0.263	0.358
Length = 24 in. Inlet = 8 in.	Flow Rate (cfm)		78	98	118	137	157	176	196	235	274
	Sound (NC)		-	17	23	28	32	36	40	46	51
Length = 24 in. Inlet = 10 in.	Throw (ft.)		4-9-18	6-11-23	9-14-27	11-16-30	12-18-32	14-20-34	15-23-35	18-27-39	21-30-42
Length = 48 in. Inlet = 6 in.	Total Pressure (in. w.g.)	0.039	0.069	0.108	0.156	0.212	0.277	0.351	0.433	0.624	
	Static Pressure (in. w.g.)	0.033	0.059	0.093	0.133	0.182	0.237	0.300	0.371	0.534	
Length = 48 in. Inlet = 8 in.	Flow Rate (cfm)	105	140	175	209	244	279	314	349	419	
	Sound (NC)	-	18	25	31	37	41	45	48	54	
Length = 48 in. Inlet = 10 in.	Throw (ft.)	7-12-24	11-16-30	13-20-33	16-24-37	19-28-39	21-30-42	24-32-45	27-33-47	30-37-52	
Length = 60 in. Inlet = 6 in.	Total Pressure (in. w.g.)	0.069	0.124	0.193	0.278	0.378	0.494	0.625			
	Static Pressure (in. w.g.)	0.064	0.114	0.177	0.256	0.348	0.454	0.575			
Length = 60 in. Inlet = 8 in.	Flow Rate (cfm)	164	218	273	327	382	436	491			
	Sound (NC)	17	27	34	40	45	50	53			
Length = 60 in. Inlet = 10 in.	Throw (ft.)	13-19-32	17-25-37	21-29-42	25-32-46	28-35-49	30-37-53	32-40-56			
Length = 84 in. Inlet = 6 in.	Total Pressure (in. w.g.)		0.026	0.040	0.058	0.078	0.102	0.130	0.160	0.230	0.314
	Static Pressure (in. w.g.)		0.016	0.024	0.035	0.048	0.063	0.079	0.098	0.141	0.192
Length = 84 in. Inlet = 8 in.	Flow Rate (cfm)		78	98	118	137	157	176	196	235	274
	Sound (NC)		-	-	17	22	26	30	34	40	45
Length = 84 in. Inlet = 10 in.	Throw (ft.)		1-2-8	1-3-10	2-5-12	3-6-13	4-8-15	5-9-17	6-10-19	8-12-23	9-13-26
Length = 108 in. Inlet = 6 in.	Total Pressure (in. w.g.)		0.036	0.056	0.081	0.110	0.143	0.182	0.224	0.323	0.439
	Static Pressure (in. w.g.)		0.026	0.040	0.058	0.079	0.104	0.131	0.162	0.233	0.317
Length = 108 in. Inlet = 8 in.	Flow Rate (cfm)		140	175	209	244	279	314	349	419	489
	Sound (NC)		-	16	22	27	31	35	39	45	50
Length = 108 in. Inlet = 10 in.	Throw (ft.)		3-7-14	5-9-17	7-10-21	8-12-24	9-14-26	10-15-28	11-17-30	14-21-32	16-24-35
Length = 132 in. Inlet = 6 in.	Total Pressure (in. w.g.)	0.030	0.053	0.083	0.119	0.162	0.212	0.268	0.331	0.476	0.648
	Static Pressure (in. w.g.)	0.024	0.043	0.067	0.097	0.131	0.172	0.217	0.268	0.386	0.526
Length = 132 in. Inlet = 8 in.	Flow Rate (cfm)	164	218	273	327	382	436	491	545	654	763
	Sound (NC)	-	-	21	27	33	37	41	44	50	55
Length = 132 in. Inlet = 10 in.	Throw (ft.)	4-8-16	7-11-21	9-13-26	11-16-29	12-19-31	14-21-33	16-24-35	18-26-37	21-29-40	25-31-44
Length = 156 in. Inlet = 6 in.	Total Pressure (in. w.g.)	0.045	0.080	0.125	0.180	0.244	0.319	0.404	0.499		
	Static Pressure (in. w.g.)	0.039	0.070	0.109	0.157	0.214	0.279	0.353	0.436		
Length = 156 in. Inlet = 8 in.	Flow Rate (cfm)	236	314	393	471	550	628	707	785		
	Sound (NC)	-	20	28	34	39	43	47	50		
Length = 156 in. Inlet = 10 in.	Throw (ft.)	8-12-23	10-15-28	13-19-31	15-23-34	18-26-37	21-28-40	23-30-42	26-31-44		
Length = 180 in. Inlet = 6 in.	Total Pressure (in. w.g.)		0.023	0.037	0.053	0.072	0.094	0.119	0.146	0.211	0.287
	Static Pressure (in. w.g.)		0.013	0.021	0.030	0.041	0.054	0.068	0.084	0.121	0.165
Length = 180 in. Inlet = 8 in.	Flow Rate (cfm)		78	98	118	137	157	176	196	235	274
	Sound (NC)		-	-	15	20	25	29	32	38	43
Length = 180 in. Inlet = 10 in.	Throw (ft.)		0-1-4	1-1-5	1-2-6	1-3-8	2-4-9	2-5-10	3-5-11	4-6-13	5-8-15
Length = 216 in. Inlet = 6 in.	Total Pressure (in. w.g.)		0.031	0.048	0.069	0.094	0.123	0.156	0.193	0.278	0.378
	Static Pressure (in. w.g.)		0.021	0.033	0.047	0.064	0.083	0.106	0.130	0.188	0.256
Length = 216 in. Inlet = 8 in.	Flow Rate (cfm)		140	175	209	244	279	314	349	419	489
	Sound (NC)		-	-	19	25	29	33	36	42	47
Length = 216 in. Inlet = 10 in.	Throw (ft.)		1-3-8	2-5-10	3-6-12	4-7-13	5-8-15	6-9-17	6-10-19	8-12-23	9-13-25
Length = 252 in. Inlet = 6 in.	Total Pressure (in. w.g.)		0.043	0.067	0.096	0.131	0.172	0.217	0.268	0.386	0.525
	Static Pressure (in. w.g.)		0.033	0.051	0.074	0.101	0.132	0.167	0.206	0.296	0.403
Length = 252 in. Inlet = 8 in.	Flow Rate (cfm)		218	273	327	382	436	491	545	654	763
	Sound (NC)		-	18	24	29	34	38	41	47	52
Length = 252 in. Inlet = 10 in.	Throw (ft.)		3-6-12	5-8-15	6-9-18	7-11-21	8-12-23	9-14-25	10-15-26	12-18-28	14-21-31
Length = 288 in. Inlet = 6 in.	Total Pressure (in. w.g.)	0.035	0.061	0.096	0.138	0.188	0.246	0.311	0.384	0.553	
	Static Pressure (in. w.g.)	0.029	0.051	0.080	0.116	0.158	0.206	0.261	0.322	0.463	
Length = 288 in. Inlet = 8 in.	Flow Rate (cfm)	236	314	393	471	550	628	707	785	942	
	Sound (NC)	-	16	24	30	35	39	43	47	53	
Length = 288 in. Inlet = 10 in.	Throw (ft.)	4-6-13	6-9-17	7-11-22	9-13-24	10-15-26	12-17-28	13-19-30	14-22-31	17-24-34	

Performance Notes:

- Tested in accordance with ASHRAE Standard 70 – 2023 Method of Testing for Rating the Performance of Air Outlets and Inlets.
- Airflow is in cubic feet per minute [cfm].
- NC, sound pressure levels, are based on a room absorption of 10 dB re 10⁻¹² Watts, and a single diffuser/grille.
- Blanks "-" indicate an NC level below 15.
- All pressures are in inches of water column [in. w.g.].
- Pressures not listed can be calculated using the following formula:
 $P_{total} = P_{static} + P_{velocity}$
- Throw data is based on supply air and room air being at isothermal conditions.
- Throw data is given in feet [ft] to terminal velocities of:
150 fpm (minimum)
100 fpm (middle)
50 fpm (maximum)
- Blank area outside recommended operating range.
- Does not include effects of ceiling radiation damper (TBD3-FR).

PERFORMANCE DATA

TBD3 – Ice-Tong Pattern Controller, 4 Slot (continued)

Model TBD375 3/4 in. Slot Width

Length = 24 in. Inlet = 6 in.	Total Pressure (in. w.g.)		0.023	0.036	0.052	0.070	0.092	0.116	0.143	0.206	0.281
	Static Pressure (in. w.g.)		0.013	0.020	0.029	0.040	0.052	0.066	0.081	0.117	0.159
	Flow Rate (cfm)		78	98	118	137	157	176	196	235	274
	Sound (NC)		-	-	-	-	19	23	27	34	40
	Throw (ft.)		2-5-15	4-9-19	5-11-23	7-13-27	10-15-31	11-17-34	13-19-35	15-23-39	18-27-42
Length = 24 in. Inlet = 8 in.	Total Pressure (in. w.g.)	0.027	0.049	0.076	0.110	0.150	0.195	0.247	0.305	0.440	0.598
	Static Pressure (in. w.g.)	0.022	0.039	0.061	0.087	0.119	0.155	0.197	0.243	0.350	0.476
	Flow Rate (cfm)	105	140	175	209	244	279	314	349	419	489
	Sound (NC)	-	-	17	24	29	34	39	43	49	55
	Throw (ft.)	4-10-20	8-14-27	11-17-33	14-20-37	16-24-39	18-27-42	20-31-45	23-33-47	27-37-52	32-39-56
Length = 24 in. Inlet = 10 in.	Total Pressure (in. w.g.)	0.052	0.092	0.144	0.207	0.281	0.367	0.465	0.574		
	Static Pressure (in. w.g.)	0.046	0.082	0.128	0.184	0.251	0.328	0.415	0.512		
	Flow Rate (cfm)	164	218	273	327	382	436	491	545		
	Sound (NC)	-	22	30	37	42	47	52	55		
	Throw (ft.)	11-16-32	14-21-37	18-27-42	21-32-46	25-35-49	28-37-53	32-40-56	34-42-59		
Length = 48 in. Inlet = 8 in.	Total Pressure (in. w.g.)		0.020	0.031	0.045	0.061	0.079	0.100	0.124	0.178	0.243
	Static Pressure (in. w.g.)		0.010	0.015	0.022	0.030	0.039	0.050	0.062	0.089	0.121
	Flow Rate (cfm)		140	175	209	244	279	314	349	419	489
	Sound (NC)		-	-	-	-	16	20	24	31	37
	Throw (ft.)		2-4-11	3-6-14	4-9-17	5-10-20	7-11-23	9-13-26	9-14-28	11-17-32	13-20-35
Length = 48 in. Inlet = 10 in.	Total Pressure (in. w.g.)	0.020	0.035	0.055	0.079	0.107	0.140	0.177	0.219	0.315	0.429
	Static Pressure (in. w.g.)	0.014	0.025	0.039	0.056	0.077	0.100	0.127	0.157	0.226	0.307
	Flow Rate (cfm)	164	218	273	327	382	436	491	545	654	763
	Sound (NC)	-	-	-	17	23	28	32	36	43	48
	Throw (ft.)	2-5-13	4-9-18	6-11-22	9-13-27	10-16-31	12-18-33	13-20-35	15-22-37	18-27-40	21-31-44
Length = 48 in. Inlet = 12 in.	Total Pressure (in. w.g.)	0.032	0.057	0.090	0.129	0.176	0.230	0.291	0.359	0.517	
	Static Pressure (in. w.g.)	0.027	0.047	0.074	0.107	0.145	0.190	0.240	0.297	0.427	
	Flow Rate (cfm)	236	314	393	471	550	628	707	785	942	
	Sound (NC)	-	-	20	27	33	38	42	46	53	
	Throw (ft.)	5-10-19	9-13-26	11-16-31	13-19-34	15-22-37	17-26-40	19-29-42	21-31-44	26-34-49	
Length = 60 in. Inlet = 8 in.	Total Pressure (in. w.g.)		0.015	0.024	0.034	0.046	0.060	0.076	0.094	0.136	0.184
	Static Pressure (in. w.g.)		0.005	0.008	0.011	0.016	0.020	0.026	0.032	0.046	0.062
	Flow Rate (cfm)		140	175	209	244	279	314	349	419	489
	Sound (NC)		-	-	-	-	-	-	19	25	31
	Throw (ft.)		1-2-6	1-3-8	2-4-10	2-5-11	3-6-13	4-7-14	5-8-16	6-10-19	7-11-22
Length = 60 in. Inlet = 10 in.	Total Pressure (in. w.g.)		0.026	0.041	0.059	0.080	0.105	0.133	0.164	0.236	0.321
	Static Pressure (in. w.g.)		0.016	0.025	0.037	0.050	0.065	0.082	0.102	0.146	0.199
	Flow Rate (cfm)		218	273	327	382	436	491	545	654	763
	Sound (NC)		-	-	-	17	22	26	30	37	42
	Throw (ft.)		2-4-10	3-6-12	4-7-15	6-9-17	7-10-20	7-11-22	8-12-25	10-15-28	12-17-31
Length = 60 in. Inlet = 12 in.	Total Pressure (in. w.g.)	0.024	0.042	0.066	0.095	0.130	0.169	0.214	0.265	0.381	0.518
	Static Pressure (in. w.g.)	0.018	0.032	0.051	0.073	0.099	0.129	0.164	0.202	0.291	0.396
	Flow Rate (cfm)	236	314	393	471	550	628	707	785	942	1099
	Sound (NC)	-	-	-	21	27	31	36	40	46	52
	Throw (ft.)	2-5-11	4-7-14	6-9-18	7-11-22	8-13-25	10-14-28	11-16-30	12-18-31	14-22-34	17-25-37

Performance Notes:

1. Tested in accordance with ASHRAE Standard 70 – 2023 Method of Testing for Rating the Performance of Air Outlets and Inlets.
2. Airflow is in cubic feet per minute [cfm].
3. NC, sound pressure levels, are based on a room absorption of 10 dB re 10⁻¹² Watts, and a single diffuser/grille.
4. Blanks “-” indicate an NC level below 15.
5. All pressures are in inches of water column [in. w.g.].
6. Pressures not listed can be calculated using the following formula:
 $P_{total} = P_{static} + P_{velocity}$
7. Throw data is based on supply air and room air being at isothermal conditions.
8. Throw data is given in feet [ft] to terminal velocities of:
150 fpm (minimum)
100 fpm (middle)
50 fpm (maximum)
9. Blank area outside recommended operating range.
10. Does not include effects of ceiling radiation damper (TBD3-FR).

PERFORMANCE DATA

TBD3 – Ice-Tong Pattern Controller, 4 Slot (continued)

Model TBD3100 1 in. Slot Width

Length = 24 in. Inlet = 6 in.	Total Pressure (in. w.g.)		0.023	0.036	0.052	0.070	0.092	0.116	0.144	0.207	0.282
	Static Pressure (in. w.g.)		0.013	0.020	0.029	0.040	0.052	0.066	0.081	0.117	0.160
Length = 24 in. Inlet = 8 in.	Flow Rate (cfm)		78	98	118	137	157	176	196	235	274
	Sound (NC)		-	-	-	-	15	20	24	30	36
Length = 24 in. Inlet = 10 in.	Throw (ft.)		2-4-13	3-6-17	4-8-20	5-11-24	7-13-27	8-15-30	10-17-34	13-20-39	16-24-42
	Static Pressure (in. w.g.)	0.023	0.040	0.063	0.091	0.123	0.161	0.204	0.252	0.362	0.493
Length = 48 in. Inlet = 8 in.	Flow Rate (cfm)	0.017	0.030	0.047	0.068	0.093	0.121	0.153	0.189	0.273	0.371
	Sound (NC)	105	140	175	209	244	279	314	349	419	489
Length = 48 in. Inlet = 10 in.	Throw (ft.)	-	-	-	-	20	25	30	34	40	46
	Static Pressure (in. w.g.)	0.037	0.066	0.103	0.148	0.201	0.263	0.333	0.411	0.592	
Length = 48 in. Inlet = 12 in.	Flow Rate (cfm)	0.031	0.056	0.087	0.126	0.171	0.223	0.283	0.349	0.502	
	Sound (NC)	164	218	273	327	382	436	491	545	654	
Length = 60 in. Inlet = 8 in.	Throw (ft.)	-	-	17	24	29	34	39	42	49	
	Static Pressure (in. w.g.)	7-14-28	12-19-37	16-23-42	19-28-46	22-33-49	25-37-53	28-40-56	31-42-59	37-46-65	
Length = 60 in. Inlet = 10 in.	Flow Rate (cfm)	0.021	0.032	0.047	0.064	0.083	0.105	0.130	0.167	0.254	
	Sound (NC)	0.011	0.017	0.024	0.033	0.043	0.055	0.067	0.097	0.132	
Length = 60 in. Inlet = 12 in.	Throw (ft.)	140	175	209	244	279	314	349	419	489	
	Static Pressure (in. w.g.)	-	-	-	-	-	18	22	28	34	
Length = 84 in. Inlet = 8 in.	Flow Rate (cfm)	0.018	0.031	0.049	0.071	0.096	0.125	0.159	0.196	0.282	0.384
	Sound (NC)	0.012	0.021	0.033	0.048	0.065	0.085	0.108	0.134	0.192	0.262
Length = 84 in. Inlet = 10 in.	Throw (ft.)	164	218	273	327	382	436	491	545	654	763
	Static Pressure (in. w.g.)	-	-	-	-	16	21	25	29	36	42
Length = 84 in. Inlet = 12 in.	Flow Rate (cfm)	2-4-12	3-6-16	4-10-19	6-12-23	8-14-27	10-16-31	12-18-35	13-19-37	16-23-40	18-27-44
	Sound (NC)	0.026	0.046	0.071	0.103	0.140	0.182	0.231	0.285	0.410	0.559
Length = 108 in. Inlet = 8 in.	Throw (ft.)	0.020	0.036	0.056	0.080	0.109	0.143	0.180	0.223	0.321	0.436
	Static Pressure (in. w.g.)	236	314	393	471	550	628	707	785	942	1099
Length = 108 in. Inlet = 10 in.	Sound (NC)	-	-	-	17	23	28	32	36	43	48
	Throw (ft.)	3-7-17	6-11-22	9-14-28	11-17-34	13-20-37	15-22-40	17-25-42	19-28-44	22-34-49	26-37-52
Length = 108 in. Inlet = 12 in.	Flow Rate (cfm)	0.017	0.027	0.039	0.053	0.069	0.087	0.108	0.155	0.211	
	Sound (NC)	0.007	0.011	0.016	0.022	0.029	0.037	0.045	0.065	0.089	
Length = 132 in. Inlet = 8 in.	Throw (ft.)	140	175	209	244	279	314	349	419	489	
	Static Pressure (in. w.g.)	-	-	-	-	-	-	18	25	31	
Length = 132 in. Inlet = 10 in.	Flow Rate (cfm)	1-1-5	1-2-7	1-3-8	2-3-10	2-5-11	3-6-13	3-7-14	5-8-17	6-10-20	
	Sound (NC)	0.025	0.040	0.057	0.078	0.101	0.128	0.158	0.228	0.310	
Length = 132 in. Inlet = 12 in.	Throw (ft.)	0.015	0.024	0.035	0.047	0.061	0.078	0.096	0.138	0.188	
	Static Pressure (in. w.g.)	218	273	327	382	436	491	545	654	763	
Length = 156 in. Inlet = 8 in.	Sound (NC)	-	-	-	-	17	21	25	32	38	
	Throw (ft.)	1-3-9	2-4-11	3-6-13	4-8-15	5-9-17	6-10-20	7-11-22	9-13-26	10-15-30	
Length = 156 in. Inlet = 10 in.	Flow Rate (cfm)	0.020	0.036	0.056	0.081	0.111	0.144	0.183	0.226	0.325	0.442
	Sound (NC)	0.015	0.026	0.041	0.059	0.080	0.105	0.132	0.163	0.235	0.320
Length = 156 in. Inlet = 12 in.	Throw (ft.)	236	314	393	471	550	628	707	785	942	1099
	Static Pressure (in. w.g.)	-	-	-	-	18	23	28	32	38	44
Length = 180 in. Inlet = 8 in.	Flow Rate (cfm)	1-3-9	3-6-13	4-8-16	6-9-19	7-11-22	8-13-25	9-14-28	10-16-31	13-19-34	15-22-37
	Sound (NC)	-	-	-	-	-	-	-	-	-	-

Performance Notes:

- Tested in accordance with ASHRAE Standard 70 – 2023 Method of Testing for Rating the Performance of Air Outlets and Inlets.
- Airflow is in cubic feet per minute [cfm].
- NC, sound pressure levels, are based on a room absorption of 10 dB re 10⁻¹² Watts, and a single diffuser/grille.
- Blanks "-" indicate an NC level below 15.
- All pressures are in inches of water column [in. w.g.].
- Pressures not listed can be calculated using the following formula:
P_{total} = P_{static} + P_{velocity}
- Throw data is based on supply air and room air being at isothermal conditions.
- Throw data is given in feet [ft] to terminal velocities of:
150 fpm (minimum)
100 fpm (middle)
50 fpm (maximum)
- Blank area outside recommended operating range.
- Does not include effects of ceiling radiation damper (TBD3-FR).

PERFORMANCE DATA

TBD8 – Ice-Tong Pattern Controller, Sloped Plenum, 1 Slot

Model TBD850 1/2 in. Slot Width

Flow Rate (cfm)			50	60	70	80	90	100	120	140	160
Throw (ft)		H	2-4-8	3-5-9	3-6-10	4-7-11	5-8-11	6-8-12	7-9-13	8-10-14	9-11-15
		V	1-2-6	2-4-7	2-4-8	3-5-8	3-6-9	4-6-9	5-7-10	6-8-11	7-8-11
Normal Length	Spread (ft)	H	6-12	7-13	5-9-15	6-10-16	7-12-17	9-12-18	10-13-19	12-15-21	13-16-22
		V	8	5-9	5-11	7-11	8-12	5-8-12	7-9-13	8-11-15	9-11-15
48 in. 5 in. Round	Total Pressure (in. w.g.)	H	.045	.060	.080	.110	.135	.170	.245	.330	.435
		V	.035	.047	.062	.086	.105	.133	.191	.258	.340
	Sound (NC)	H	-	-	18	22	25	28	33	37	40
		V	-	-	-	18	21	24	29	33	36
60 in. 6 in. Round	Total Pressure (in. w.g.)	H	.027	.041	.054	.068	.088	.109	.156	.214	.279
		V	.020	.031	.041	.051	.066	.082	.117	.158	.209
	Sound (NC)	H	-	-	-	18	21	24	29	33	36
		V	-	-	-	-	16	19	24	28	31

Model TBD875 3/4 in. Slot Width

Flow Rate (cfm)			60	80	100	120	140	160	180	200	220
Throw (ft)		H	3-4-9	4-6-10	5-7-11	6-9-12	7-10-14	8-10-15	9-11-15	9-11-16	10-12-17
		V	1-3-6	3-4-7	3-5-8	4-6-9	5-7-9	5-7-10	6-7-10	6-8-11	7-8-11
Normal Length	Spread (ft)	H	4-6-13	6-9-15	7-10-16	9-13-18	10-15-21	12-15-22	13-16-23	14-17-24	15-18-25
		V	8	5-9	7-11	5-8-12	7-9-12	7-9-13	8-9-13	8-11-15	9-11-15
48 in. 6 in. Round	Total Pressure (in. w.g.)	H	.042	.070	.112	.161	.217	.287	.364	.441	.553
		V	.031	.051	.082	.117	.158	.209	.265	.321	.403
	Sound (NC)	H	-	19	25	30	34	37	40	43	46
		V	-	13	19	24	28	31	34	37	40
60 in. 7 in. Round	Total Pressure (in. w.g.)	H	.025	.049	.074	.107	.148	.197	.246	.303	.369
		V	.018	.036	.054	.078	.108	.144	.180	.222	.280
	Sound (NC)	H	-	-	19	24	28	31	34	37	40
		V	-	-	-	19	23	26	29	32	35

Model TBD8100 1 in. Slot Width

Flow Rate (cfm)			60	80	100	120	140	160	180	200	220
Throw (ft)		H	2-4-8	3-5-10	4-7-11	5-8-12	6-9-13	7-10-14	8-10-15	9-11-16	10-12-17
		V	1-2-4	2-3-5	2-3-6	3-4-6	3-5-7	3-5-7	4-5-8	4-6-8	5-6-9
Normal Length	Spread (ft)	H	6-12	7-15	6-10-16	7-12-18	9-13-19	10-15-21	12-15-22	13-16-24	15-18-25
		V	5	7	8	5-8	7-9	7-9	5-7-11	5-8-11	7-8-12
48 in. 7 in. Round	Total Pressure (in. w.g.)	H	.028	.055	.083	.120	.166	.221	.276	.340	.413
		V	.019	.038	.057	.082	.113	.151	.189	.233	.284
	Sound (NC)	H	-	15	21	26	30	33	36	39	42
		V	-	-	15	20	24	27	30	33	36
60 in. 8 in. Round	Total Pressure (in. w.g.)	H	.020	.031	.051	.072	.102	.133	.163	.204	.255
		V	.014	.021	.035	.048	.069	.090	.110	.138	.173
	Sound (NC)	H	-	-	16	21	25	28	31	34	37
		V	-	-	-	-	18	21	24	27	30

Table of Velocity Pressures, in. w.g.

cfm	50	60	70	80	90	100	120	140	160	180	200	220
5 in.	0.008	0.012	0.016	0.021	0.027	0.034	0.048	0.066	0.086	0.109	0.134	0.162
6 in.	0.004	0.006	0.008	0.010	0.013	0.016	0.023	0.032	0.041	0.052	0.065	0.078
7 in.	0.002	0.003	0.004	0.006	0.007	0.009	0.013	0.017	0.022	0.028	0.035	0.042
8 in.	0.001	0.002	0.003	0.003	0.004	0.005	0.007	0.010	0.013	0.017	0.020	0.025

Performance Notes:

- Tested in accordance with ASHRAE Standard 70 – 2023 Method of Testing for Rating the Performance of Air Outlets and Inlets.
- Airflow is in cubic feet per minute [cfm].
- NC, sound pressure levels, are based on a room absorption of 10 dB re 10⁻¹² Watts, and a single diffuser/grille.
- Blanks "-" indicate an NC level below 15.
- All pressures are in inches of water column [in. w.g.].
- Pressures not listed can be calculated using the following formula: Ptotal = Pstatic + Pvelocity
- Throw data is based on supply air and room air being at isothermal conditions.
- The throw, horizontal (H) and vertical (V), is the distance to terminal velocities (VT) of 150, 100 and 50 fpm. Spread is the maximum width of the jet as defined by the above terminal velocities.

PERFORMANCE DATA

TBD8 – Ice-Tong Pattern Controller, Sloped Plenum, 2 Slot

Model TBD850 1/2 in. Slot Width

Flow Rate (cfm)			100	130	160	190	220	250	280	310	340
Throw (ft)		H	4-6-11	5-7-12	6-9-14	7-10-15	8-11-16	9-12-17	10-13-18	11-13-19	11-14-20
		V	2-3-5	2-4-6	3-4-7	3-5-7	4-6-8	4-6-8	5-6-9	5-7-9	6-7-10
Normal Length	Spread (ft)	H	6-9-16	7-10-18	9-13-21	10-15-22	12-16-24	13-18-25	15-19-27	16-19-28	16-21-30
		V	3-4-6	3-5-8	4-5-9	4-6-9	5-8-10	5-8-10	6-8-12	6-9-12	8-9-13
48 in.	Total Pressure (in. w.g.)		.050	.084	.131	.184	.247	.315	.396	.487	.587
	Sound (NC)		-	17	25	30	35	39	43	46	49
60 in.	Total Pressure (in. w.g.)		.032	.053	.077	.112	.147	.193	.242	.294	.354
	Sound (NC)		-	-	21	24	28	32	36	39	41

Model TBD875 3/4 in. Slot Width

Flow Rate (cfm)			130	160	190	220	250	280	310	340	370
Throw (ft)		H	5-7-12	6-9-13	7-10-14	8-11-15	9-11-16	10-12-17	10-13-18	11-13-19	11-14-20
		V	2-4-6	3-4-6	4-5-7	4-5-7	5-6-8	5-6-8	5-6-9	5-6-9	6-7-10
Normal Length	Spread (ft)	H	7-10-18	9-13-19	10-15-21	12-16-22	13-16-24	15-18-25	15-19-27	16-19-28	16-21-30
		V	3-5-8	4-5-8	5-6-9	5-6-9	6-8-10	6-8-10	6-8-12	6-8-12	8-9-13
48 in.	Total Pressure (in. w.g.)		.059	.086	.126	.165	.216	.271	.330	.397	.472
	Sound (NC)		-	22	28	30	34	38	41	43	46
60 in.	Total Pressure (in. w.g.)		.045	.066	.091	.146	.161	.202	.247	.297	.353
	Sound (NC)		-	-	24	28	32	36	39	42	44

Model TBD8100 1 in. Slot Width

Flow Rate (cfm)			160	190	220	250	280	310	340	370	400
Throw (ft)		H	5-8-12	6-9-14	7-10-15	8-11-16	9-12-18	10-12-17	11-13-18	11-13-19	11-14-20
		V	2-3-6	3-4-7	3-5-7	3-5-7	4-6-8	4-6-8	5-6-8	5-6-9	5-6-9
Normal Length	Spread (ft)	H	7-12-18	9-13-21	10-15-22	12-16-24	13-18-25	15-18-27	16-19-27	16-19-28	16-21-30
		V	3-4-8	4-5-9	4-6-9	4-6-9	5-8-10	5-8-10	6-8-10	6-8-12	6-8-12
48 in.	Total Pressure (in. w.g.)		.060	.087	.114	.150	.188	.228	.275	.326	.381
	Sound (NC)		-	23	25	29	33	35	37	39	42
60 in.	Total Pressure (in. w.g.)		.040	.055	.076	.098	.122	.149	.180	.214	.250
	Sound (NC)		-	19	22	25	28	30	32	34	37

Performance Notes:

1. Tested in accordance with ASHRAE Standard 70 – 2023 Method of Testing for Rating the Performance of Air Outlets and Inlets.
2. Airflow is in cubic feet per minute [cfm].
3. NC, sound pressure levels, are based on a room absorption of 10 dB re 10⁻¹² Watts, and a single diffuser/grille.
4. Blanks "-" indicate an NC level below 15.
5. All pressures are in inches of water column [in. w.g.].
6. Pressures not listed can be calculated using the following formula: Ptotal = Pstatic + Pvelocity
7. Throw data is based on supply air and room air being at isothermal conditions.
8. The throw, horizontal (H) and vertical (V), is the distance to terminal velocities (VT) of 150, 100 and 50 fpm. Spread is the maximum width of the jet as defined by the above terminal velocities.

PERFORMANCE DATA

TBD4 – Blade Pattern Controller, 1 Slot

Model TBD475 3/4 in. Slot Width

Length = 24 in. Inlet = 6 in.	Total Pressure (in. w.g.)	0.030	0.068	0.121	0.190	0.273	0.372	0.486	0.615	0.759	
	Static Pressure (in. w.g.)	0.028	0.063	0.111	0.174	0.251	0.341	0.446	0.564	0.697	
	Flow Rate (cfm)	39	59	78	98	118	137	157	176	196	
	Sound (NC)	-	18	28	35	41	46	50	54	57	
	Throw (ft.)	2-4-10	4-7-14	6-10-18	8-12-21	10-14-23	11-17-24	13-18-26	14-20-28	16-21-29	
Length = 24 in. Inlet = 8 in.	Total Pressure (in. w.g.)	0.071	0.160	0.284	0.443	0.638					
	Static Pressure (in. w.g.)	0.068	0.154	0.274	0.428	0.616					
	Flow Rate (cfm)	70	105	140	175	209					
	Sound (NC)	19	32	41	48	54					
	Throw (ft.)	6-8-17	8-13-21	11-17-25	14-19-28	17-21-30					
Length = 48 in. Inlet = 6 in.	Total Pressure (in. w.g.)	0.012	0.027	0.049	0.076	0.109	0.149	0.194	0.246	0.304	0.437
	Static Pressure (in. w.g.)	0.010	0.022	0.039	0.060	0.087	0.118	0.154	0.195	0.241	0.347
	Flow Rate (cfm)	39	59	78	98	118	137	157	176	196	235
	NC	-	-	-	20	26	31	35	39	42	48
	Throw (ft.)	1-2-6	2-4-10	3-6-12	5-8-14	6-10-15	7-11-16	8-12-18	10-13-19	11-14-20	12-15-22
Length = 48 in. Inlet = 8 in.	Total Pressure (in. w.g.)	0.026	0.058	0.103	0.162	0.233	0.317	0.413	0.523		
	Static Pressure (in. w.g.)	0.023	0.053	0.093	0.146	0.210	0.286	0.374	0.473		
	Flow Rate (cfm)	70	105	140	175	209	244	279	314		
	Sound (NC)	-	16	25	32	38	43	47	51		
	Throw (ft.)	3-6-11	6-8-14	8-11-17	9-13-19	11-14-20	13-16-22	14-17-23	14-18-25		
Length = 48 in. Inlet = 10 in.	Total Pressure (in. w.g.)	0.049	0.110	0.195	0.305	0.439	0.598				
	Static Pressure (in. w.g.)	0.046	0.104	0.185	0.289	0.417	0.567				
	Flow Rate (cfm)	109	164	218	273	327	382				
	Sound (NC)	-	26	35	42	48	53				
	Throw (ft.)	6-9-15	9-13-18	12-15-21	13-16-23	15-18-25	16-19-27				
Length = 48 in. Inlet = 12 in.	Total Pressure (in. w.g.)	0.085	0.192	0.341	0.532						
	Static Pressure (in. w.g.)	0.083	0.186	0.331	0.517						
	Flow Rate (cfm)	157	236	314	393						
	Sound (NC)	22	35	44	51						
	Throw (ft.)	8-12-18	12-15-22	14-18-25	16-20-28						
Length = 60 in. Inlet = 6 in.	Total Pressure (in. w.g.)	0.009	0.021	0.037	0.058	0.083	0.113	0.148	0.187	0.231	0.332
	Static Pressure (in. w.g.)	0.007	0.015	0.027	0.042	0.061	0.083	0.108	0.136	0.168	0.243
	Flow Rate (cfm)	39	59	78	98	118	137	157	176	196	235
	Sound (NC)	-	-	-	16	22	27	31	35	38	44
	Throw (ft.)	1-1-5	1-3-8	2-5-9	3-6-11	5-8-12	6-9-12	7-9-13	8-10-14	9-11-15	9-12-16
Length = 60 in. Inlet = 8 in.	Total Pressure (in. w.g.)	0.019	0.043	0.077	0.120	0.172	0.234	0.306	0.387	0.478	
	Static Pressure (in. w.g.)	0.017	0.037	0.067	0.104	0.150	0.204	0.266	0.337	0.416	
	Flow Rate (cfm)	70	105	140	175	209	244	279	314	349	
	Sound (NC)	-	-	20	27	33	38	42	46	50	
	Throw (ft.)	2-4-9	4-7-11	6-9-13	8-10-14	9-11-15	10-12-17	10-13-18	11-13-19	11-14-20	
Length = 60 in. Inlet = 10 in.	Total Pressure (in. w.g.)	0.035	0.079	0.141	0.220	0.317	0.432	0.564			
	Static Pressure (in. w.g.)	0.033	0.074	0.131	0.205	0.295	0.402	0.525			
	Flow Rate (cfm)	109	164	218	273	327	382	436			
	Sound (NC)	-	21	30	37	43	48	52			
	Throw (ft.)	4-7-11	7-10-14	9-11-16	10-12-18	11-14-19	12-15-21	13-16-22			
Length = 60 in. Inlet = 12 in.	Total Pressure (in. w.g.)	0.060	0.136	0.241	0.377	0.543					
	Static Pressure (in. w.g.)	0.058	0.130	0.231	0.361	0.520					
	Flow Rate (cfm)	157	236	314	393	471					
	Sound (NC)	16	29	38	46	51					
	Throw (ft.)	7-9-13	9-12-16	11-13-19	12-15-21	13-16-23					

Performance Notes:

- Tested in accordance with ASHRAE Standard 70 – 2023 Method of Testing for Rating the Performance of Air Outlets and Inlets.
- Airflow is in cubic feet per minute [cfm].
- NC, sound pressure levels, are based on a room absorption of 10 dB re 10⁻¹² Watts, and a single diffuser/grille.
- Blanks “-” indicate an NC level below 15.
- All pressures are in inches of water column [in. w.g.].
- Pressures not listed can be calculated using the following formula:
P_{total} = P_{static} + P_{velocity}
- Throw data is based on supply air and room air being at isothermal conditions.
- Throw data is given in feet [ft] to terminal velocities of:
150 fpm (minimum)
100 fpm (middle)
50 fpm (maximum)
- Blank area outside recommended operating range.
- Does not include effects of ceiling radiation damper (TBD4-FR).

PERFORMANCE DATA

TBD4 – Blade Pattern Controller, 1 Slot (continued)

Model TBD4100 1 in. Slot Width

Length = 24 in. Inlet = 6 in.	Total Pressure (in. w.g.) Static Pressure (in. w.g.) Flow Rate (cfm) Sound (NC) Throw (ft.)	0.032 0.029 39 - 1-3-9	0.072 0.066 59 17 3-7-13	0.128 0.118 78 26 6-9-18	0.200 0.184 98 34 7-11-21	0.288 0.265 118 39 9-13-23	0.392 0.361 137 44 10-15-24	0.512 0.472 157 49 12-18-26			
Length = 24 in. Inlet = 8 in.	Total Pressure (in. w.g.) Static Pressure (in. w.g.) Flow Rate (cfm) Sound (NC) Throw (ft.)	0.068 0.065 70 19 4-8-16	0.152 0.146 105 32 8-12-21	0.270 0.260 140 41 10-16-25	0.422 0.407 175 48 13-19-28	0.608 0.586 209 54 16-21-30					
Length = 48 in. Inlet = 6 in.	Total Pressure (in. w.g.) Static Pressure (in. w.g.) Flow Rate (cfm) NC Throw (ft.)	0.014 0.012 39 - 1-1-5	0.032 0.026 59 - 1-3-9	0.056 0.046 78 - 2-5-12	0.088 0.072 98 17 4-7-14	0.127 0.104 118 23 5-9-15	0.172 0.142 137 28 7-10-16	0.225 0.185 157 33 8-12-18	0.285 0.235 176 36 9-13-19	0.352 0.290 196 40 10-14-20	0.507 0.417 235 46 12-15-22
Length = 48 in. Inlet = 8 in.	Total Pressure (in. w.g.) Static Pressure (in. w.g.) Flow Rate (cfm) Sound (NC) Throw (ft.)	0.028 0.025 70 - 2-4-10	0.062 0.057 105 - 4-8-14	0.111 0.101 140 24 7-10-17	0.173 0.158 175 31 9-13-19	0.249 0.227 209 37 10-14-20	0.340 0.309 244 42 12-16-22	0.444 0.404 279 46 14-17-23	0.561 0.511 314 50 14-18-25	0.693 0.631 349 53 15-19-26	
Length = 48 in. Inlet = 10 in. [254]	Total Pressure (in. w.g.) Static Pressure (in. w.g.) Flow Rate (cfm) Sound (NC) Throw (ft.)	0.049 0.046 109 - 5-8-15	0.109 0.104 164 25 8-12-18	0.194 0.184 218 35 11-15-21	0.304 0.288 273 42 13-16-23	0.437 0.415 327 48 15-18-25	0.595 0.565 382 53 16-19-27				
Length = 48 in. Inlet = 12 in.	Total Pressure (in. w.g.) Static Pressure (in. w.g.) Flow Rate (cfm) Sound (NC) Throw (ft.)	0.079 0.077 157 22 8-12-18	0.179 0.173 236 35 12-15-22	0.317 0.308 314 44 14-18-25	0.496 0.480 393 52 16-20-28						
Length = 60 in. Inlet = 6 in.	Total Pressure (in. w.g.) Static Pressure (in. w.g.) Flow Rate (cfm) Sound (NC) Throw (ft.)	0.011 0.008 39 - 0-1-4	0.025 0.019 59 - 1-2-7	0.044 0.034 78 - 2-4-9	0.068 0.053 98 - 3-6-11	0.099 0.076 118 18 4-7-12	0.134 0.104 137 23 5-8-12	0.175 0.135 157 28 6-9-13	0.222 0.171 176 31 7-10-14	0.274 0.212 196 35 8-11-15	0.394 0.305 235 41 9-12-16
Length = 60 in. Inlet = 8 in.	Total Pressure (in. w.g.) Static Pressure (in. w.g.) Flow Rate (cfm) Sound (NC) Throw (ft.)	0.021 0.019 70 - 1-3-8	0.048 0.042 105 - 3-6-11	0.085 0.075 140 18 5-8-13	0.133 0.117 175 25 7-10-14	0.191 0.168 209 31 8-11-15	0.260 0.229 244 36 10-12-17	0.339 0.299 279 41 10-13-18	0.429 0.379 314 44 11-13-19	0.530 0.468 349 48 11-14-20	
Length = 60 in. Inlet = 10 in.	Total Pressure (in. w.g.) Static Pressure (in. w.g.) Flow Rate (cfm) Sound (NC) Throw (ft.)	0.037 0.034 109 - 3-7-11	0.082 0.077 164 20 7-10-14	0.146 0.136 218 29 9-11-16	0.228 0.213 273 36 10-12-18	0.329 0.306 327 42 11-14-19	0.447 0.417 382 47 12-15-21	0.584 0.544 436 51 13-16-22			
Length = 60 in. Inlet = 12 in.	Total Pressure (in. w.g.) Static Pressure (in. w.g.) Flow Rate (cfm) Sound (NC) Throw (ft.)	0.059 0.056 157 16 6-9-13	0.132 0.126 236 29 9-12-16	0.234 0.224 314 38 11-13-19	0.366 0.351 393 46 12-15-21	0.527 0.505 471 51 13-16-23					

Performance Notes:

- Tested in accordance with ASHRAE Standard 70 – 2023 Method of Testing for Rating the Performance of Air Outlets and Inlets.
- Airflow is in cubic feet per minute [cfm].
- NC, sound pressure levels, are based on a room absorption of 10 dB re 10⁻¹² Watts, and a single diffuser/grille.
- Blanks "-" indicate an NC level below 15.
- All pressures are in inches of water column [in. w.g.].
- Pressures not listed can be calculated using the following formula:
Ptotal = Pstatic + Pvelocity
- Throw data is based on supply air and room air being at isothermal conditions.
- Throw data is given in feet [ft] to terminal velocities of:
150 fpm (minimum)
100 fpm (middle)
50 fpm (maximum)
- Blank area outside recommended operating range.
- Does not include effects of ceiling radiation damper (TBD4-FR).

PERFORMANCE DATA

TBD4 – Blade Pattern Controller, 1 Slot (continued)

Model TBD4150 1-1/2 in. Slot Width

Length = 24 in. Inlet = 6 in.	Total Pressure (in. w.g.)	0.020	0.044	0.078	0.123	0.177	0.240	0.314	0.397	0.490	0.706
	Static Pressure (in. w.g.)	0.017	0.039	0.068	0.107	0.154	0.210	0.274	0.347	0.428	0.616
	Flow Rate (cfm)	39	59	78	98	118	137	157	176	196	235
	Sound (NC)	-	-	17	24	30	35	39	43	46	52
	Throw (ft.)	1-2-8	2-5-12	4-8-16	6-10-20	8-12-23	9-14-24	10-16-26	12-18-28	13-20-29	16-23-32
Length = 24 in. Inlet = 8 in.	Total Pressure (in. w.g.)	0.040	0.089	0.159	0.248	0.357	0.486	0.634			
	Static Pressure (in. w.g.)	0.037	0.084	0.149	0.232	0.334	0.455	0.595			
	Flow Rate (cfm)	70	105	140	175	209	244	279			
	Sound (NC)	-	21	31	38	44	49	53			
	Throw (ft.)	3-7-14	7-11-21	9-14-25	12-18-28	14-21-30	16-23-33	19-25-35			
Length = 24 in. Inlet = 10 in.	Total Pressure (in. w.g.)	0.071	0.161	0.285	0.446	0.642					
	Static Pressure (in. w.g.)	0.069	0.155	0.275	0.430	0.620					
	Flow Rate (cfm)	109	164	218	273	327					
	NC	20	33	42	49	55					
	Throw (ft.)	7-11-22	11-16-27	15-22-31	18-24-34	22-27-38					
Length = 48 in. Inlet = 6 in.	Total Pressure (in. w.g.)	0.009	0.020	0.036	0.056	0.081	0.110	0.143	0.181	0.224	0.323
	Static Pressure (in. w.g.)	0.006	0.015	0.026	0.040	0.058	0.079	0.103	0.131	0.162	0.233
	Flow Rate (cfm)	39	59	78	98	118	137	157	176	196	235
	Sound (NC)	-	-	-	-	-	19	24	27	31	37
	Throw (ft.)	0-1-3	1-2-7	2-3-10	2-5-12	3-7-15	5-9-16	6-10-18	7-11-19	8-12-20	10-15-22
Length = 48 in. Inlet = 8 in.	Total Pressure (in. w.g.)	0.017	0.039	0.069	0.107	0.154	0.210	0.274	0.347	0.428	0.617
	Static Pressure (in. w.g.)	0.015	0.033	0.059	0.091	0.132	0.179	0.234	0.296	0.366	0.527
	Flow Rate (cfm)	70	105	140	175	209	244	279	314	349	419
	Sound (NC)	-	-	-	21	27	32	36	40	44	49
	Throw (ft.)	1-3-9	3-6-13	5-9-17	7-11-19	9-13-20	10-16-22	12-17-23	13-18-25	15-19-26	17-20-29
Length = 48 in. Inlet = 10 in.	Total Pressure (in. w.g.)	0.029	0.066	0.116	0.182	0.262	0.357	0.466	0.590		
	Static Pressure (in. w.g.)	0.027	0.060	0.106	0.166	0.240	0.326	0.426	0.539		
	Flow Rate (cfm)	109	164	218	273	327	382	436	491		
	Sound (NC)	-	15	25	32	38	43	47	51		
	Throw (ft.)	3-7-14	7-10-18	9-14-21	12-16-23	14-18-25	16-19-27	17-21-29	18-22-31		
Length = 48 in. Inlet = 12 in.	Total Pressure (in. w.g.)	0.046	0.104	0.184	0.288	0.415	0.565				
	Static Pressure (in. w.g.)	0.044	0.098	0.174	0.273	0.392	0.534				
	Flow Rate (cfm)	157	236	314	393	471	550				
	Sound (NC)	-	24	34	41	47	52				
	Throw (ft.)	6-10-18	10-15-22	13-18-25	16-20-28	18-22-30	19-23-33				
Length = 60 in. Inlet = 6 in.	Total Pressure (in. w.g.)	0.007	0.016	0.028	0.044	0.063	0.086	0.113	0.142	0.176	0.253
	Static Pressure (in. w.g.)	0.005	0.010	0.018	0.028	0.041	0.056	0.073	0.092	0.113	0.163
	Flow Rate (cfm)	39	59	78	98	118	137	157	176	196	235
	Sound (NC)	-	-	-	-	-	-	19	23	26	32
	Throw (ft.)	0-1-2	1-1-5	1-2-8	2-4-10	2-5-12	3-7-12	4-8-13	5-9-14	6-10-15	8-12-16
Length = 60 in. Inlet = 8 in.	Total Pressure (in. w.g.)	0.013	0.030	0.053	0.083	0.119	0.163	0.212	0.269	0.332	0.478
	Static Pressure (in. w.g.)	0.011	0.024	0.043	0.067	0.097	0.132	0.173	0.218	0.270	0.388
	Flow Rate (cfm)	70	105	140	175	209	244	279	314	349	419
	Sound (NC)	-	-	-	16	22	27	31	35	39	44
	Throw (ft.)	1-2-7	2-4-11	3-7-13	5-9-14	7-11-15	8-12-17	10-13-18	11-13-19	11-14-20	13-15-22
Length = 60 in. Inlet = 10 in.	Total Pressure (in. w.g.)	0.022	0.050	0.089	0.139	0.200	0.272	0.356	0.450	0.556	
	Static Pressure (in. w.g.)	0.020	0.044	0.079	0.123	0.178	0.242	0.316	0.400	0.494	
	Flow Rate (cfm)	109	164	218	273	327	382	436	491	545	
	Sound (NC)	-	-	19	26	32	37	42	45	49	
	Throw (ft.)	2-4-11	4-8-14	7-11-16	9-12-18	11-14-19	12-15-21	13-16-22	14-17-23	14-18-25	
Length = 60 in. Inlet = 12 in.	Total Pressure (in. w.g.)	0.035	0.078	0.139	0.217	0.312	0.425	0.555	0.703		
	Static Pressure (in. w.g.)	0.032	0.072	0.129	0.201	0.290	0.395	0.515	0.652		
	Flow Rate (cfm)	157	236	314	393	471	550	628	707		
	Sound (NC)	-	19	28	35	41	46	50	54		
	Throw (ft.)	4-8-13	8-12-16	11-13-19	12-15-21	13-16-23	14-18-25	15-19-27	16-20-28		

Performance Notes:

- Tested in accordance with ASHRAE Standard 70 – 2023 Method of Testing for Rating the Performance of Air Outlets and Inlets.
- Airflow is in cubic feet per minute [cfm].
- NC, sound pressure levels, are based on a room absorption of 10 dB re 10⁻¹² Watts, and a single diffuser/grille.
- Blanks "- " indicate an NC level below 15.
- All pressures are in inches of water column [in. w.g.].
- Pressures not listed can be calculated using the following formula:
P_{total} = P_{static} + P_{velocity}
- Throw data is based on supply air and room air being at isothermal conditions.
- Throw data is given in feet [ft] to terminal velocities of:
150 fpm (minimum)
100 fpm (middle)
50 fpm (maximum)
- Blank area outside recommended operating range.
- Does not include effects of ceiling radiation damper (TBD4-FR).

PERFORMANCE DATA

TBD4 – Blade Pattern Controller, 2 Slot

Model TBD475 3/4 in. Slot Width

Length = 24 in. Inlet = 6 in.	Total Pressure (in. w.g.)	0.027	0.049	0.076	0.109	0.149	0.194	0.246	0.304	0.437	0.595
	Static Pressure (in. w.g.)	0.022	0.039	0.060	0.087	0.118	0.154	0.195	0.241	0.347	0.473
	Flow Rate (cfm)	59	78	98	118	137	157	176	196	235	274
	Sound (NC)	-	18	25	31	36	40	44	48	53	58
	Throw (ft.)	2-5-12	4-8-16	6-10-20	8-12-23	9-14-24	10-16-26	12-18-28	13-20-29	16-23-32	18-24-35
Length = 24 in. Inlet = 8 in.	Total Pressure (in. w.g.)	0.058	0.103	0.162	0.233	0.317	0.413	0.523			
	Static Pressure (in. w.g.)	0.053	0.093	0.146	0.210	0.286	0.374	0.473			
	Flow Rate (cfm)	105	140	175	209	244	279	314			
	Sound (NC)	24	34	41	47	52	56	60			
	Throw (ft.)	7-11-21	9-14-25	12-18-28	14-21-30	16-23-33	19-25-35	21-26-37			
Length = 24 in. Inlet = 10 in.	Total Pressure (in. w.g.)	0.110	0.195	0.305	0.439	0.598					
	Static Pressure (in. w.g.)	0.104	0.185	0.289	0.417	0.567					
	Flow Rate (cfm)	164	218	273	327	382					
	NC	37	47	54	60	65					
	Throw (ft.)	11-16-27	15-22-31	18-24-34	22-27-38	24-29-41					
Length = 48 in. Inlet = 6 in.	Total Pressure (in. w.g.)		0.021	0.033	0.048	0.065	0.085	0.108	0.133	0.191	0.260
	Static Pressure (in. w.g.)		0.011	0.018	0.025	0.035	0.045	0.057	0.071	0.102	0.138
	Flow Rate (cfm)		78	98	118	137	157	176	196	235	274
	Sound (NC)		-	-	-	19	24	27	31	37	42
	Throw (ft.)		2-3-10	2-5-12	3-7-15	5-9-16	6-10-18	7-11-19	8-12-20	10-15-22	12-16-23
Length = 48 in. Inlet = 8 in.	Total Pressure (in. w.g.)	0.024	0.042	0.066	0.095	0.129	0.168	0.213	0.263	0.379	0.515
	Static Pressure (in. w.g.)	0.018	0.032	0.050	0.072	0.098	0.128	0.162	0.201	0.289	0.393
	Flow Rate (cfm)	105	140	175	209	244	279	314	349	419	489
	Sound (NC)	-	15	22	28	33	38	41	45	51	55
	Throw (ft.)	3-6-13	5-9-17	7-11-19	9-13-20	10-16-22	12-17-23	13-18-25	15-19-26	17-20-29	18-22-31
Length = 48 in. Inlet = 10 in.	Total Pressure (in. w.g.)	0.042	0.074	0.116	0.167	0.227	0.297	0.375	0.463		
	Static Pressure (in. w.g.)	0.036	0.064	0.100	0.144	0.196	0.257	0.325	0.401		
	Flow Rate (cfm)	164	218	273	327	382	436	491	545		
	Sound (NC)	18	27	34	40	45	49	53	56		
	Throw (ft.)	7-10-18	9-14-21	12-16-23	14-18-25	16-19-27	17-21-29	18-22-31	19-23-33		
Length = 48 in. Inlet = 12 in.	Total Pressure (in. w.g.)	0.068	0.122	0.190	0.274	0.373	0.487	0.616			
	Static Pressure (in. w.g.)	0.063	0.112	0.174	0.251	0.342	0.447	0.565			
	Flow Rate (cfm)	236	314	393	471	550	628	707			
	Sound (NC)	28	37	44	50	55	59	63			
	Throw (ft.)	10-15-22	13-18-25	16-20-28	18-22-30	19-23-33	20-25-35	22-26-37			
Length = 60 in. Inlet = 6 in.	Total Pressure (in. w.g.)		0.017	0.026	0.037	0.051	0.066	0.084	0.103	0.149	0.202
	Static Pressure (in. w.g.)		0.007	0.010	0.015	0.020	0.026	0.033	0.041	0.059	0.080
	Flow Rate (cfm)		78	98	118	137	157	176	196	235	274
	Sound (NC)		-	-	-	-	18	22	26	31	36
	Throw (ft.)		1-2-8	2-4-10	2-5-12	3-7-12	4-8-13	5-9-14	6-10-15	8-12-16	9-12-18
Length = 60 in. Inlet = 8 in.	Total Pressure (in. w.g.)	0.018	0.032	0.050	0.072	0.098	0.128	0.163	0.201	0.289	0.393
	Static Pressure (in. w.g.)	0.012	0.022	0.035	0.050	0.068	0.089	0.112	0.138	0.199	0.271
	Flow Rate (cfm)	105	140	175	209	244	279	314	349	419	489
	Sound (NC)	-	-	17	23	28	32	36	39	45	50
	Throw (ft.)	2-4-11	3-7-13	5-9-14	7-11-15	8-12-17	10-13-18	11-13-19	11-14-20	13-15-22	14-17-23
Length = 60 in. Inlet = 10 in.	Total Pressure (in. w.g.)	0.031	0.056	0.087	0.125	0.170	0.222	0.281	0.347	0.500	0.680
	Static Pressure (in. w.g.)	0.026	0.046	0.071	0.103	0.140	0.182	0.231	0.285	0.410	0.558
	Flow Rate (cfm)	164	218	273	327	382	436	491	545	654	763
	Sound (NC)	-	21	28	34	39	43	47	50	56	61
	Throw (ft.)	4-8-14	7-11-16	9-12-18	11-14-19	12-15-21	13-16-22	14-17-23	14-18-25	16-19-27	17-21-29
Length = 60 in. Inlet = 12 in.	Total Pressure (in. w.g.)	0.050	0.090	0.140	0.201	0.274	0.358	0.453	0.560		
	Static Pressure (in. w.g.)	0.045	0.080	0.124	0.179	0.244	0.318	0.403	0.497		
	Flow Rate (cfm)	236	314	393	471	550	628	707	785		
	Sound (NC)	21	31	38	44	49	53	57	60		
	Throw (ft.)	8-12-16	11-13-19	12-15-21	13-16-23	14-18-25	15-19-27	16-20-28	17-21-30		

Performance Notes:

- Tested in accordance with ASHRAE Standard 70 – 2023 Method of Testing for Rating the Performance of Air Outlets and Inlets.
- Airflow is in cubic feet per minute [cfm].
- NC, sound pressure levels, are based on a room absorption of 10 dB re 10⁻¹² Watts, and a single diffuser/grille.
- Blanks "-" indicate an NC level below 15.
- All pressures are in inches of water column [in. w.g.].
- Pressures not listed can be calculated using the following formula:
Ptotal = Pstatic + Pvelocity
- Throw data is based on supply air and room air being at isothermal conditions.
- Throw data is given in feet [ft] to terminal velocities of:
150 fpm (minimum)
100 fpm (middle)
50 fpm (maximum)
- Blank area outside recommended operating range.
- Does not include effects of ceiling radiation damper (TBD4-FR).

PERFORMANCE DATA

TBD4 – Blade Pattern Controller, 2 Slot (continued)

Model TBD4100 1 in. Slot Width

Length = 24 in. Inlet = 6 in.	Total Pressure (in. w.g.)	0.032	0.056	0.088	0.127	0.172	0.225	0.285	0.352	0.507	0.690
	Static Pressure (in. w.g.)	0.026	0.046	0.072	0.104	0.142	0.185	0.235	0.290	0.417	0.568
	Flow Rate (cfm)	59	78	98	118	137	157	176	196	235	274
	Sound (NC)	-	-	17	23	28	33	36	40	46	50
	Throw (ft.)	2-4-11	3-7-14	5-9-18	7-11-22	8-13-24	10-14-26	11-16-28	12-18-29	14-22-32	17-24-35
Length = 24 in. Inlet = 8 in.	Total Pressure (in. w.g.)	0.062	0.111	0.173	0.249	0.340	0.444	0.561	0.693		
	Static Pressure (in. w.g.)	0.057	0.101	0.158	0.227	0.309	0.404	0.511	0.631		
	Flow Rate (cfm)	105	140	175	209	244	279	314	349		
	Sound (NC)	-	24	31	37	42	46	50	53		
	Throw (ft.)	5-10-19	9-13-25	11-16-28	13-19-30	15-22-33	17-25-35	19-26-37	21-28-39		
Length = 24 in. Inlet = 10 in.	Total Pressure (in. w.g.)	0.109	0.194	0.304	0.437	0.595					
	Static Pressure (in. w.g.)	0.104	0.184	0.288	0.415	0.565					
	Flow Rate (cfm)	164	218	273	327	382					
	Sound (NC)	25	35	42	48	53					
	Throw (ft.)	10-15-27	13-20-31	17-24-34	20-27-38	23-29-41					
Length = 48 in. Inlet = 6 in.	Total Pressure (in. w.g.)		0.026	0.041	0.059	0.080	0.105	0.133	0.164	0.236	0.321
	Static Pressure (in. w.g.)		0.016	0.025	0.037	0.050	0.065	0.082	0.102	0.146	0.199
	Flow Rate (cfm)		78	98	118	137	157	176	196	235	274
	Sound (NC)		-	-	-	-	17	21	25	30	35
	Throw (ft.)		1-2-9	2-4-11	2-6-13	3-8-16	4-9-18	6-10-19	7-11-20	9-13-22	10-16-23
Length = 48 in. Inlet = 8 in.	Total Pressure (in. w.g.)	0.028	0.049	0.077	0.111	0.151	0.198	0.250	0.309	0.444	0.605
	Static Pressure (in. w.g.)	0.022	0.039	0.062	0.089	0.121	0.158	0.199	0.246	0.355	0.483
	Flow Rate (cfm)	105	140	175	209	244	279	314	349	419	489
	Sound (NC)	-	-	-	21	26	30	34	37	43	48
	Throw (ft.)	2-4-12	3-8-16	5-10-19	8-12-20	9-14-22	11-16-23	12-18-25	13-19-26	16-20-29	18-22-31
Length = 48 in. Inlet = 10 in.	Total Pressure (in. w.g.)	0.046	0.082	0.129	0.185	0.252	0.330	0.417	0.515		
	Static Pressure (in. w.g.)	0.041	0.072	0.113	0.163	0.222	0.290	0.367	0.453		
	Flow Rate (cfm)	164	218	273	327	382	436	491	545		
	Sound (NC)	-	18	25	31	36	40	44	47		
	Throw (ft.)	5-9-18	8-12-21	10-15-23	12-18-25	14-19-27	16-21-29	18-22-31	19-23-33		
Length = 48 in. Inlet = 12 in.	Total Pressure (in. w.g.)	0.072	0.128	0.200	0.288	0.392	0.512	0.648			
	Static Pressure (in. w.g.)	0.066	0.118	0.185	0.266	0.362	0.472	0.598			
	Flow Rate (cfm)	236	314	393	471	550	628	707			
	Sound (NC)	17	26	34	39	44	49	53			
	Throw (ft.)	9-13-22	12-18-25	15-20-28	18-22-30	19-23-33	20-25-35	22-26-37			
Length = 60 in. Inlet = 6 in.	Total Pressure (in. w.g.)		0.021	0.032	0.047	0.063	0.083	0.105	0.129	0.186	0.253
	Static Pressure (in. w.g.)		0.011	0.017	0.024	0.033	0.043	0.054	0.067	0.096	0.131
	Flow Rate (cfm)		78	98	118	137	157	176	196	235	274
	Sound (NC)		-	-	-	-	-	17	20	26	31
	Throw (ft.)		1-2-6	1-3-9	2-4-11	2-5-12	3-6-13	4-8-14	5-9-15	6-11-16	8-12-18
Length = 60 in. Inlet = 8 in.	Total Pressure (in. w.g.)	0.022	0.039	0.060	0.087	0.118	0.154	0.195	0.241	0.347	0.472
	Static Pressure (in. w.g.)	0.016	0.029	0.045	0.064	0.087	0.114	0.145	0.178	0.257	0.350
	Flow Rate (cfm)	105	140	175	209	244	279	314	349	419	489
	Sound (NC)	-	-	-	16	21	25	29	32	38	43
	Throw (ft.)	1-3-10	2-5-13	4-8-14	5-10-15	7-11-17	8-13-18	10-13-19	11-14-20	13-15-22	14-17-23
Length = 60 in. Inlet = 10 in.	Total Pressure (in. w.g.)	0.036	0.064	0.099	0.143	0.195	0.254	0.322	0.397	0.572	
	Static Pressure (in. w.g.)	0.030	0.054	0.084	0.121	0.164	0.214	0.271	0.335	0.482	
	Flow Rate (cfm)	164	218	273	327	382	436	491	545	654	
	Sound (NC)	-	-	20	26	31	35	39	42	48	
	Throw (ft.)	3-7-14	6-10-16	8-12-18	10-14-19	12-15-21	13-16-22	14-17-23	14-18-25	16-19-27	
Length = 60 in. Inlet = 12 in.	Total Pressure (in. w.g.)	0.055	0.098	0.152	0.220	0.299	0.390	0.494	0.610		
	Static Pressure (in. w.g.)	0.049	0.088	0.137	0.197	0.268	0.350	0.443	0.547		
	Flow Rate (cfm)	236	314	393	471	550	628	707	785		
	Sound (NC)	-	21	28	34	39	43	47	51		
	Throw (ft.)	7-11-16	10-13-19	12-15-21	13-16-23	14-18-25	15-19-27	16-20-28	17-21-30		

Performance Notes:

1. Tested in accordance with ASHRAE Standard 70 – 2023 Method of Testing for Rating the Performance of Air Outlets and Inlets.
2. Airflow is in cubic feet per minute [cfm].
3. NC, sound pressure levels, are based on a room absorption of 10 dB re 10⁻¹² Watts, and a single diffuser/grille.
4. Blanks "-" indicate an NC level below 15.
5. All pressures are in inches of water column [in. w.g.].
6. Pressures not listed can be calculated using the following formula:
 $P_{total} = P_{static} + P_{velocity}$
7. Throw data is based on supply air and room air being at isothermal conditions.
8. Throw data is given in feet [ft] to terminal velocities of:
150 fpm (minimum)
100 fpm (middle)
50 fpm (maximum)
9. Blank area outside recommended operating range.
10. Does not include effects of ceiling radiation damper (TBD4-FR).

PERFORMANCE DATA

TBD4 – Blade Pattern Controller, 2 Slot (continued)

Model TBD4150 1-1/2 in. Slot Width

Length = 24 in. Inlet = 6 in.	Total Pressure (in. w.g.)	0.020	0.036	0.056	0.081	0.110	0.143	0.181	0.224	0.323	0.439
	Static Pressure (in. w.g.)	0.015	0.026	0.040	0.058	0.079	0.103	0.131	0.162	0.233	0.317
	Flow Rate (cfm)	59	78	98	118	137	157	176	196	235	274
	Sound (NC)	-	-	-	-	19	24	27	31	37	42
	Throw (ft.)	2-5-12	4-8-16	6-10-20	8-12-23	9-14-24	10-16-26	12-18-28	13-20-29	16-23-32	18-24-35
Length = 24 in. Inlet = 8 in.	Total Pressure (in. w.g.)	0.039	0.069	0.107	0.154	0.210	0.274	0.347	0.428	0.617	
	Static Pressure (in. w.g.)	0.033	0.059	0.091	0.132	0.179	0.234	0.296	0.366	0.527	
	Flow Rate (cfm)	105	140	175	209	244	279	314	349	419	
	Sound (NC)	-	-	21	27	32	36	40	44	49	
	Throw (ft.)	7-11-21	9-14-25	12-18-28	14-21-30	16-23-33	19-25-35	21-26-37	23-28-39	25-30-43	
Length = 24 in. Inlet = 10 in.	Total Pressure (in. w.g.)	0.066	0.116	0.182	0.262	0.357	0.466	0.590			
	Static Pressure (in. w.g.)	0.060	0.106	0.166	0.240	0.326	0.426	0.539			
	Flow Rate (cfm)	164	218	273	327	382	436	491			
	NC	15	25	32	38	43	47	51			
	Throw (ft.)	11-16-27	15-22-31	18-24-34	22-27-38	24-29-41	25-31-44	27-33-46			
Length = 48 in. Inlet = 6 in.	Total Pressure (in. w.g.)		0.017	0.027	0.038	0.052	0.068	0.086	0.107	0.154	0.209
	Static Pressure (in. w.g.)		0.007	0.011	0.016	0.022	0.028	0.036	0.044	0.064	0.087
	Flow Rate (cfm)		78	98	118	137	157	176	196	235	274
	Sound (NC)		-	-	-	-	-	-	16	22	27
	Throw (ft.)		1-1-6	1-2-9	1-3-11	2-5-13	3-6-15	3-7-17	4-9-19	6-11-22	8-13-23
Length = 48 in. Inlet = 8 in.	Total Pressure (in. w.g.)	0.018	0.032	0.049	0.071	0.097	0.126	0.160	0.197	0.284	0.387
	Static Pressure (in. w.g.)	0.012	0.022	0.034	0.049	0.066	0.086	0.109	0.135	0.194	0.265
	Flow Rate (cfm)	105	140	175	209	244	279	314	349	419	489
	Sound (NC)	-	-	-	-	17	21	25	28	34	39
	Throw (ft.)	1-3-10	2-5-13	3-7-17	5-10-20	6-12-22	8-13-23	10-15-25	11-17-26	13-20-29	16-22-31
Length = 48 in. Inlet = 10 in.	Total Pressure (in. w.g.)	0.029	0.052	0.081	0.116	0.158	0.207	0.262	0.323	0.465	0.633
	Static Pressure (in. w.g.)	0.023	0.042	0.065	0.094	0.128	0.167	0.211	0.261	0.375	0.511
	Flow Rate (cfm)	164	218	273	327	382	436	491	545	654	763
	Sound (NC)	-	-	16	22	27	31	35	38	44	49
	Throw (ft.)	3-6-16	5-10-21	8-13-23	10-16-25	12-18-27	14-21-29	16-22-31	17-23-33	21-25-36	22-27-39
Length = 48 in. Inlet = 12 in.	Total Pressure (in. w.g.)	0.044	0.079	0.123	0.177	0.241	0.314	0.398	0.491		
	Static Pressure (in. w.g.)	0.039	0.069	0.107	0.154	0.210	0.274	0.347	0.429		
	Flow Rate (cfm)	236	314	393	471	550	628	707	785		
	Sound (NC)	-	17	24	30	35	39	43	46		
	Throw (ft.)	6-11-22	10-15-25	13-19-28	15-22-30	18-23-33	20-25-35	22-26-37	23-28-39		
Length = 60 in. Inlet = 6 in.	Total Pressure (in. w.g.)		0.014	0.021	0.030	0.041	0.054	0.068	0.084	0.122	0.166
	Static Pressure (in. w.g.)		0.004	0.006	0.008	0.011	0.014	0.018	0.022	0.032	0.043
	Flow Rate (cfm)		78	98	118	137	157	176	196	235	274
	Sound (NC)		-	-	-	-	-	-	-	17	22
	Throw (ft.)		0-1-4	1-1-6	1-2-9	1-3-10	2-4-12	2-5-13	3-6-15	4-9-16	5-10-18
Length = 60 in. Inlet = 8 in.	Total Pressure (in. w.g.)	0.014	0.025	0.039	0.056	0.076	0.099	0.126	0.155	0.223	0.304
	Static Pressure (in. w.g.)	0.008	0.015	0.023	0.033	0.045	0.059	0.075	0.093	0.134	0.182
	Flow Rate (cfm)	105	140	175	209	244	279	314	349	419	489
	Sound (NC)	-	-	-	-	-	16	20	24	29	34
	Throw (ft.)	1-2-7	1-3-11	2-5-13	3-7-15	4-9-17	5-11-18	7-12-19	8-13-20	11-15-22	12-17-23
Length = 60 in. Inlet = 10 in.	Total Pressure (in. w.g.)	0.023	0.040	0.063	0.091	0.123	0.161	0.204	0.252	0.363	0.493
	Static Pressure (in. w.g.)	0.017	0.030	0.047	0.068	0.093	0.121	0.153	0.189	0.273	0.371
	Flow Rate (cfm)	164	218	273	327	382	436	491	545	654	763
	Sound (NC)	-	-	-	17	22	26	30	33	39	44
	Throw (ft.)	2-4-12	3-7-16	5-10-18	7-12-19	10-15-21	11-16-22	12-17-23	14-18-25	16-19-27	17-21-29
Length = 60 in. Inlet = 12 in.	Total Pressure (in. w.g.)	0.034	0.061	0.095	0.137	0.186	0.243	0.307	0.379	0.546	
	Static Pressure (in. w.g.)	0.029	0.051	0.079	0.114	0.155	0.203	0.257	0.317	0.456	
	Flow Rate (cfm)	236	314	393	471	550	628	707	785	942	
	Sound (NC)	-	-	19	25	30	34	38	41	47	
	Throw (ft.)	4-9-16	7-12-19	10-15-21	12-16-23	14-18-25	15-19-27	16-20-28	17-21-30	19-23-33	

Performance Notes:

- Tested in accordance with ASHRAE Standard 70 – 2023 Method of Testing for Rating the Performance of Air Outlets and Inlets.
- Airflow is in cubic feet per minute [cfm].
- NC, sound pressure levels, are based on a room absorption of 10 dB re 10⁻¹² Watts, and a single diffuser/grille.
- Blanks "-" indicate an NC level below 15.
- All pressures are in inches of water column [in. w.g.].
- Pressures not listed can be calculated using the following formula:
P_{total} = P_{static} + P_{velocity}
- Throw data is based on supply air and room air being at isothermal conditions.
- Throw data is given in feet [ft] to terminal velocities of:
150 fpm (minimum)
100 fpm (middle)
50 fpm (maximum)
- Blank area outside recommended operating range.
- Does not include effects of ceiling radiation damper (TBD4-FR).

PERFORMANCE DATA

TBD4 – Blade Pattern Controller, 3 Slot

Model TBD475 3/4 in. Slot Width

Length = 24 in. Inlet = 6 in.	Total Pressure (in. w.g.)	0.017	0.030	0.046	0.067	0.091	0.119	0.150	0.186	0.267	0.364
	Static Pressure (in. w.g.)	0.011	0.020	0.031	0.044	0.060	0.079	0.100	0.123	0.177	0.242
	Flow Rate (cfm)	59	78	98	118	137	157	176	196	235	274
	Sound (NC)	-	-	15	21	26	30	34	38	43	48
	Throw (ft.)	2-3-10	3-6-14	4-9-17	6-10-21	8-12-24	9-14-26	10-15-28	11-17-29	14-21-32	16-24-35
Length = 24 in. Inlet = 8 in.	Total Pressure (in. w.g.)	0.034	0.060	0.094	0.136	0.185	0.241	0.306	0.377	0.543	
	Static Pressure (in. w.g.)	0.028	0.050	0.079	0.113	0.154	0.202	0.255	0.315	0.454	
	Flow Rate (cfm)	105	140	175	209	244	279	314	349	419	
	Sound (NC)	-	23	30	36	41	45	49	52	58	
	Throw (ft.)	5-9-18	8-12-25	10-15-28	12-18-30	14-21-33	16-25-35	18-26-37	20-28-39	25-30-43	
Length = 24 in. Inlet = 10 in.	Total Pressure (in. w.g.)	0.061	0.109	0.171	0.246	0.335	0.437	0.553	0.683		
	Static Pressure (in. w.g.)	0.056	0.099	0.155	0.223	0.304	0.397	0.503	0.620		
	Flow Rate (cfm)	164	218	273	327	382	436	491	545		
	Sound (NC)	25	35	42	48	53	57	61	64		
	Throw (ft.)	10-14-27	13-19-31	16-24-34	19-27-38	22-29-41	25-31-44	27-33-46	28-34-49		
Length = 48 in. Inlet = 6 in.	Total Pressure (in. w.g.)		0.013	0.021	0.030	0.041	0.054	0.068	0.084	0.121	0.165
	Static Pressure (in. w.g.)		0.004	0.006	0.008	0.011	0.014	0.018	0.022	0.032	0.043
	Flow Rate (cfm)		78	98	118	137	157	176	196	235	274
	Sound (NC)		-	-	-	-	-	18	21	27	32
	Throw (ft.)		1-2-8	1-3-11	2-5-13	3-7-15	4-8-17	5-10-19	6-11-20	8-13-22	10-15-23
Length = 48 in. Inlet = 8 in.	Total Pressure (in. w.g.)		0.026	0.040	0.058	0.079	0.104	0.131	0.162	0.233	0.317
	Static Pressure (in. w.g.)		0.016	0.025	0.036	0.049	0.064	0.081	0.100	0.143	0.195
	Flow Rate (cfm)		140	175	209	244	279	314	349	419	489
	Sound (NC)		-	-	18	23	28	31	35	41	46
	Throw (ft.)		3-7-15	5-9-19	7-11-20	9-13-22	10-15-23	11-17-25	13-19-26	15-20-29	18-22-31
Length = 48 in. Inlet = 10 in.	Total Pressure (in. w.g.)	0.025	0.044	0.069	0.099	0.135	0.177	0.224	0.276	0.398	0.542
	Static Pressure (in. w.g.)	0.019	0.034	0.053	0.077	0.105	0.137	0.173	0.214	0.308	0.419
	Flow Rate (cfm)	164	218	273	327	382	436	491	545	654	763
	Sound (NC)	-	16	23	29	34	39	42	46	52	56
	Throw (ft.)	4-9-18	7-12-21	10-15-23	12-18-25	14-19-27	16-21-29	18-22-31	19-23-33	21-25-36	22-27-39
Length = 48 in. Inlet = 12 in.	Total Pressure (in. w.g.)	0.040	0.070	0.110	0.158	0.215	0.281	0.356	0.439	0.633	
	Static Pressure (in. w.g.)	0.034	0.060	0.094	0.136	0.185	0.241	0.305	0.377	0.543	
	Flow Rate (cfm)	236	314	393	471	550	628	707	785	942	
	Sound (NC)	16	26	33	39	44	48	52	55	61	
	Throw (ft.)	8-13-22	11-17-25	14-20-28	17-22-30	19-23-33	20-25-35	22-26-37	23-28-39	25-30-43	
Length = 60 in. Inlet = 6 in.	Total Pressure (in. w.g.)		0.011	0.017	0.024	0.032	0.042	0.054	0.066	0.095	0.130
	Static Pressure (in. w.g.)		0.001	0.001	0.001	0.002	0.002	0.003	0.004	0.005	0.007
	Flow Rate (cfm)		78	98	118	137	157	176	196	235	274
	Sound (NC)		-	-	-	-	-	-	17	22	27
	Throw (ft.)		1-1-6	1-2-8	1-3-10	2-4-12	2-6-13	3-7-14	4-8-15	6-10-16	8-12-18
Length = 60 in. Inlet = 8 in.	Total Pressure (in. w.g.)		0.020	0.031	0.045	0.061	0.080	0.101	0.125	0.180	0.246
	Static Pressure (in. w.g.)		0.010	0.016	0.023	0.031	0.040	0.051	0.063	0.091	0.123
	Flow Rate (cfm)		140	175	209	244	279	314	349	419	489
	Sound (NC)		-	-	-	18	22	26	30	35	40
	Throw (ft.)		2-4-12	3-7-14	4-9-15	6-11-17	8-12-18	9-13-19	10-14-20	12-15-22	14-17-23
Length = 60 in. Inlet = 10 in.	Total Pressure (in. w.g.)	0.019	0.034	0.053	0.076	0.103	0.135	0.171	0.211	0.303	0.413
	Static Pressure (in. w.g.)	0.013	0.024	0.037	0.053	0.073	0.095	0.120	0.148	0.214	0.291
	Flow Rate (cfm)	164	218	273	327	382	436	491	545	654	763
	Sound (NC)	-	-	18	24	29	33	37	40	46	51
	Throw (ft.)	3-6-14	5-9-16	7-12-18	9-14-19	11-15-21	13-16-22	14-17-23	14-18-25	16-19-27	17-21-29
Length = 60 in. Inlet = 12 in.	Total Pressure (in. w.g.)	0.030	0.053	0.082	0.119	0.162	0.211	0.267	0.330	0.475	0.646
	Static Pressure (in. w.g.)	0.024	0.043	0.067	0.096	0.131	0.171	0.217	0.267	0.385	0.524
	Flow Rate (cfm)	236	314	393	471	550	628	707	785	942	1099
	Sound (NC)	-	20	27	33	38	42	46	49	55	60
	Throw (ft.)	6-10-16	9-13-19	11-15-21	13-16-23	14-18-25	15-19-27	16-20-28	17-21-30	19-23-33	20-25-35

Performance Notes:

- Tested in accordance with ASHRAE Standard 70 – 2023 Method of Testing for Rating the Performance of Air Outlets and Inlets.
- Airflow is in cubic feet per minute [cfm].
- NC, sound pressure levels, are based on a room absorption of 10 dB re 10⁻¹² Watts, and a single diffuser/grille.
- Blanks “-” indicate an NC level below 15.
- All pressures are in inches of water column [in. w.g.].
- Pressures not listed can be calculated using the following formula:
P_{total} = P_{static} + P_{velocity}
- Throw data is based on supply air and room air being at isothermal conditions.
- Throw data is given in feet [ft] to terminal velocities of:
150 fpm (minimum)
100 fpm (middle)
50 fpm (maximum)
- Blank area outside recommended operating range.
- Does not include effects of ceiling radiation damper (TBD4-FR).

PERFORMANCE DATA

TBD4 – Blade Pattern Controller, 3 Slot (continued)

Model TBD4100 1 in. Slot Width

Length = 24 in. Inlet = 6 in.	Total Pressure (in. w.g.)	0.017	0.029	0.046	0.066	0.090	0.117	0.149	0.183	0.264	0.360
	Static Pressure (in. w.g.)	0.011	0.019	0.030	0.044	0.059	0.077	0.098	0.121	0.174	0.237
	Flow Rate (cfm)	59	78	98	118	137	157	176	196	235	274
	Sound (NC)	-	-	-	-	19	23	27	30	36	41
	Throw (ft.)	1-2-9	2-4-12	3-7-15	4-9-19	6-11-22	8-12-25	9-14-28	10-15-29	12-19-32	14-22-35
Length = 24 in. Inlet = 8 in.	Total Pressure (in. w.g.)	0.028	0.049	0.077	0.111	0.151	0.197	0.250	0.308	0.444	0.604
	Static Pressure (in. w.g.)	0.022	0.039	0.062	0.089	0.121	0.157	0.199	0.246	0.354	0.482
	Flow Rate (cfm)	105	140	175	209	244	279	314	349	419	489
	Sound (NC)	-	-	16	22	27	31	35	38	44	49
	Throw (ft.)	3-8-17	6-11-22	9-14-28	11-17-30	13-19-33	15-22-35	17-25-37	18-28-39	22-30-43	26-33-46
Length = 24 in. Inlet = 10 in.	Total Pressure (in. w.g.)	0.042	0.075	0.117	0.169	0.230	0.300	0.379	0.468	0.675	
	Static Pressure (in. w.g.)	0.037	0.065	0.102	0.146	0.199	0.260	0.329	0.406	0.585	
	Flow Rate (cfm)	164	218	273	327	382	436	491	545	654	
	NC	-	-	22	28	33	37	41	44	50	
	Throw (ft.)	8-13-26	11-17-31	14-21-34	17-26-38	20-29-41	23-31-44	26-33-46	28-34-49	31-38-53	
Length = 48 in. Inlet = 6 in.	Total Pressure (in. w.g.)		0.017	0.026	0.037	0.051	0.066	0.084	0.103	0.149	0.203
	Static Pressure (in. w.g.)		0.007	0.010	0.015	0.020	0.026	0.033	0.041	0.059	0.080
	Flow Rate (cfm)		78	98	118	137	157	176	196	235	274
	Sound (NC)		-	-	-	-	-	18	21	27	32
	Throw (ft.)		1-1-6	1-2-9	1-3-11	2-5-13	3-6-15	3-7-17	4-9-19	6-11-22	8-13-23
Length = 48 in. Inlet = 8 in.	Total Pressure (in. w.g.)		0.027	0.041	0.060	0.081	0.106	0.134	0.166	0.239	0.325
	Static Pressure (in. w.g.)		0.017	0.026	0.037	0.051	0.066	0.084	0.104	0.149	0.203
	Flow Rate (cfm)		140	175	209	244	279	314	349	419	489
	Sound (NC)		-	-	-	17	21	25	29	34	39
	Throw (ft.)		2-5-13	3-7-17	5-10-20	6-12-22	8-13-23	10-15-25	11-17-26	13-20-29	16-22-31
Length = 48 in. Inlet = 10 in.	Total Pressure (in. w.g.)	0.022	0.039	0.061	0.089	0.120	0.157	0.199	0.246	0.354	0.482
	Static Pressure (in. w.g.)	0.017	0.029	0.046	0.066	0.090	0.117	0.149	0.184	0.264	0.360
	Flow Rate (cfm)	164	218	273	327	382	436	491	545	654	763
	Sound (NC)	-	-	-	18	23	27	31	35	40	45
	Throw (ft.)	3-6-16	5-10-21	8-13-23	10-16-25	12-18-27	14-21-29	16-22-31	17-23-33	21-25-36	22-27-39
Length = 48 in. Inlet = 12 in.	Total Pressure (in. w.g.)	0.031	0.055	0.086	0.124	0.169	0.220	0.279	0.344	0.495	0.674
	Static Pressure (in. w.g.)	0.025	0.045	0.070	0.101	0.138	0.180	0.228	0.282	0.405	0.552
	Flow Rate (cfm)	236	314	393	471	550	628	707	785	942	1099
	Sound (NC)	-	-	17	23	28	32	36	40	45	50
	Throw (ft.)	9-13-22	12-18-25	15-20-28	18-22-30	19-23-33	20-25-35	22-26-37	23-28-39	25-30-43	27-33-47
Length = 60 in. Inlet = 6 in.	Total Pressure (in. w.g.)		0.014	0.022	0.031	0.043	0.056	0.071	0.087	0.126	0.171
	Static Pressure (in. w.g.)		0.004	0.006	0.009	0.012	0.016	0.020	0.025	0.036	0.049
	Flow Rate (cfm)		78	98	118	137	157	176	196	235	274
	Sound (NC)		-	-	-	-	-	15	19	25	30
	Throw (ft.)		0-1-4	1-1-6	1-2-9	1-3-10	2-4-12	2-5-13	3-6-15	4-9-16	5-10-18
Length = 60 in. Inlet = 8 in.	Total Pressure (in. w.g.)		0.022	0.034	0.049	0.067	0.088	0.111	0.137	0.198	0.269
	Static Pressure (in. w.g.)		0.012	0.019	0.027	0.037	0.048	0.061	0.075	0.108	0.147
	Flow Rate (cfm)		140	175	209	244	279	314	349	419	489
	Sound (NC)		-	-	-	-	18	22	26	32	36
	Throw (ft.)		1-3-11	2-5-13	3-7-15	4-9-17	5-11-18	7-12-19	8-13-20	11-15-22	12-17-23
Length = 60 in. Inlet = 10 in.	Total Pressure (in. w.g.)	0.018	0.032	0.050	0.073	0.099	0.129	0.163	0.201	0.290	0.395
	Static Pressure (in. w.g.)	0.013	0.022	0.035	0.050	0.068	0.089	0.113	0.139	0.200	0.273
	Flow Rate (cfm)	164	218	273	327	382	436	491	545	654	763
	Sound (NC)	-	-	-	15	20	24	28	31	37	42
	Throw (ft.)	2-4-12	3-7-16	5-10-18	7-12-19	10-15-21	11-16-22	12-17-23	14-18-25	16-19-27	17-21-29
Length = 60 in. Inlet = 12 in.	Total Pressure (in. w.g.)	0.025	0.045	0.070	0.101	0.137	0.179	0.227	0.280	0.403	0.548
	Static Pressure (in. w.g.)	0.020	0.035	0.054	0.078	0.107	0.139	0.176	0.217	0.313	0.426
	Flow Rate (cfm)	236	314	393	471	550	628	707	785	942	1099
	Sound (NC)	-	-	-	20	25	29	33	36	42	47
	Throw (ft.)	4-9-16	7-12-19	10-15-21	12-16-23	14-18-25	15-19-27	16-20-28	17-21-30	19-23-33	20-25-35

Performance Notes:

- Tested in accordance with ASHRAE Standard 70 – 2023 Method of Testing for Rating the Performance of Air Outlets and Inlets.
- Airflow is in cubic feet per minute [cfm].
- NC, sound pressure levels, are based on a room absorption of 10 dB re 10⁻¹² Watts, and a single diffuser/grille.
- Blanks "-" indicate an NC level below 15.
- All pressures are in inches of water column [in. w.g.].
- Pressures not listed can be calculated using the following formula:
P_{total} = P_{static} + P_{velocity}
- Throw data is based on supply air and room air being at isothermal conditions.
- Throw data is given in feet [ft] to terminal velocities of:
150 fpm (minimum)
100 fpm (middle)
50 fpm (maximum)
- Blank area outside recommended operating range.
- Does not include effects of ceiling radiation damper (TBD4-FR).

PERFORMANCE DATA

TBD4 – Blade Pattern Controller, 3 Slot (continued)

Model TBD4150 1-1/2 in. Slot Width

Length = 24 in. Inlet = 6 in.	Total Pressure (in. w.g.)	0.012	0.021	0.033	0.047	0.064	0.083	0.105	0.130	0.187	0.255
	Static Pressure (in. w.g.)	0.006	0.011	0.017	0.024	0.033	0.043	0.055	0.068	0.098	0.133
	Flow Rate (cfm)	59	78	98	118	137	157	176	196	235	274
	Sound (NC)	-	-	-	-	-	18	21	25	31	36
	Throw (ft.)	1-2-6	1-3-11	2-4-13	3-6-16	4-8-18	5-11-21	6-12-24	7-13-26	11-16-32	12-18-35
Length = 24 in. Inlet = 8 in.	Total Pressure (in. w.g.)	0.019	0.034	0.053	0.077	0.105	0.137	0.173	0.213	0.307	0.418
	Static Pressure (in. w.g.)	0.014	0.024	0.038	0.054	0.074	0.097	0.122	0.151	0.217	0.296
	Flow Rate (cfm)	105	140	175	209	244	279	314	349	419	489
	Sound (NC)	-	-	-	16	21	25	29	32	38	43
	Throw (ft.)	2-5-14	4-9-19	6-12-23	9-14-28	11-16-33	12-19-35	14-21-37	16-23-39	19-28-43	22-33-46
Length = 24 in. Inlet = 10 in.	Total Pressure (in. w.g.)	0.029	0.051	0.080	0.115	0.157	0.205	0.259	0.320	0.461	0.627
	Static Pressure (in. w.g.)	0.023	0.041	0.064	0.093	0.126	0.165	0.209	0.258	0.371	0.505
	Flow Rate (cfm)	164	218	273	327	382	436	491	545	654	763
	Sound (NC)	-	-	16	22	27	31	35	39	44	49
	Throw (ft.)	5-11-22	9-15-29	12-18-34	15-22-38	17-26-41	19-29-44	22-33-46	24-34-49	29-38-53	33-41-58
Length = 48 in. Inlet = 6 in.	Total Pressure (in. w.g.)		0.012	0.019	0.028	0.038	0.049	0.062	0.077	0.110	0.150
	Static Pressure (in. w.g.)		0.002	0.004	0.005	0.007	0.009	0.012	0.014	0.021	0.028
	Flow Rate (cfm)		78	98	118	137	157	176	196	235	274
	Sound (NC)		-	-	-	-	-	-	17	23	28
	Throw (ft.)		0-1-3	1-1-5	1-2-8	1-3-11	2-3-13	2-4-14	2-5-16	3-8-19	5-11-22
Length = 48 in. Inlet = 8 in.	Total Pressure (in. w.g.)		0.019	0.030	0.043	0.058	0.076	0.096	0.118	0.170	0.232
	Static Pressure (in. w.g.)		0.009	0.014	0.020	0.027	0.036	0.045	0.056	0.081	0.110
	Flow Rate (cfm)		140	175	209	244	279	314	349	419	489
	Sound (NC)		-	-	-	-	16	20	23	29	34
	Throw (ft.)		1-3-11	2-4-14	3-6-17	4-8-20	5-11-22	6-13-25	8-14-26	11-17-29	13-20-31
Length = 48 in. Inlet = 10 in.	Total Pressure (in. w.g.)	0.015	0.027	0.043	0.062	0.084	0.110	0.139	0.172	0.247	0.337
	Static Pressure (in. w.g.)	0.010	0.018	0.027	0.039	0.054	0.070	0.089	0.109	0.158	0.214
	Flow Rate (cfm)	164	218	273	327	382	436	491	545	654	763
	Sound (NC)	-	-	-	-	18	22	26	29	35	40
	Throw (ft.)	2-4-13	3-7-17	5-10-22	7-13-25	9-15-27	12-17-29	13-20-31	15-22-33	17-25-36	20-27-39
Length = 48 in. Inlet = 12 in.	Total Pressure (in. w.g.)	0.021	0.038	0.059	0.085	0.116	0.152	0.192	0.237	0.341	0.465
	Static Pressure (in. w.g.)	0.016	0.028	0.044	0.063	0.086	0.112	0.142	0.175	0.252	0.342
	Flow Rate (cfm)	236	314	393	471	550	628	707	785	942	1099
	Sound (NC)	-	-	-	18	23	27	31	34	40	45
	Throw (ft.)	3-8-19	6-13-25	10-16-28	13-19-30	15-22-33	17-25-35	19-26-37	21-28-39	25-30-43	27-33-47
Length = 60 in. Inlet = 6 in.	Total Pressure (in. w.g.)		0.011	0.017	0.024	0.032	0.042	0.053	0.066	0.095	0.129
	Static Pressure (in. w.g.)		0.001	0.001	0.001	0.002	0.002	0.003	0.004	0.005	0.007
	Flow Rate (cfm)		78	98	118	137	157	176	196	235	274
	Sound (NC)		-	-	-	-	-	-	-	20	25
	Throw (ft.)		0-1-2	0-1-3	1-1-5	1-2-7	1-2-9	1-3-11	2-3-12	2-5-15	3-7-17
Length = 60 in. Inlet = 8 in.	Total Pressure (in. w.g.)		0.016	0.025	0.036	0.049	0.064	0.080	0.099	0.143	0.195
	Static Pressure (in. w.g.)		0.006	0.009	0.013	0.018	0.024	0.030	0.037	0.053	0.073
	Flow Rate (cfm)		140	175	209	244	279	314	349	419	489
	Sound (NC)		-	-	-	-	-	17	21	27	32
	Throw (ft.)		1-2-7	1-3-11	2-4-13	2-5-15	3-7-18	4-9-19	5-11-20	7-13-22	9-15-23
Length = 60 in. Inlet = 10 in.	Total Pressure (in. w.g.)	0.013	0.023	0.036	0.051	0.070	0.091	0.115	0.142	0.205	0.278
	Static Pressure (in. w.g.)	0.007	0.013	0.020	0.029	0.039	0.051	0.065	0.080	0.115	0.156
	Flow Rate (cfm)	164	218	273	327	382	436	491	545	654	763
	Sound (NC)	-	-	-	-	-	19	23	26	32	37
	Throw (ft.)	1-2-10	2-4-14	3-7-17	4-10-19	6-12-21	8-14-22	10-16-23	12-17-25	14-19-27	16-21-29
Length = 60 in. Inlet = 12 in.	Total Pressure (in. w.g.)	0.017	0.031	0.049	0.070	0.095	0.124	0.157	0.194	0.280	0.381
	Static Pressure (in. w.g.)	0.012	0.021	0.033	0.048	0.065	0.084	0.107	0.132	0.190	0.259
	Flow Rate (cfm)	236	314	393	471	550	628	707	785	942	1099
	Sound (NC)	-	-	-	-	19	24	28	31	37	42
	Throw (ft.)	2-5-15	4-9-19	6-12-21	9-15-23	12-17-25	13-19-27	15-20-28	17-21-30	19-23-33	20-25-35

Performance Notes:

- Tested in accordance with ASHRAE Standard 70 – 2023 Method of Testing for Rating the Performance of Air Outlets and Inlets.
- Airflow is in cubic feet per minute [cfm].
- NC, sound pressure levels, are based on a room absorption of 10 dB re 10⁻¹² Watts, and a single diffuser/grille.
- Blanks "-" indicate an NC level below 15.
- All pressures are in inches of water column [in. w.g.].
- Pressures not listed can be calculated using the following formula:
P_{total} = P_{static} + P_{velocity}
- Throw data is based on supply air and room air being at isothermal conditions.
- Throw data is given in feet [ft] to terminal velocities of:
150 fpm (minimum)
100 fpm (middle)
50 fpm (maximum)
- Blank area outside recommended operating range.
- Does not include effects of ceiling radiation damper (TBD4-FR).

PERFORMANCE DATA

TBD4 – Blade Pattern Controller, 4 Slot

Model TBDA75 3/4 in. Slot Width

Length = 24 in. Inlet = 6 in.	Total Pressure (in. w.g.)	0.021	0.033	0.048	0.065	0.085	0.108	0.133	0.191	0.260
	Static Pressure (in. w.g.)	0.011	0.018	0.025	0.035	0.045	0.057	0.071	0.102	0.138
	Flow Rate (cfm)	78	98	118	137	157	176	196	235	274
	Sound (NC)	-	-	-	19	24	27	31	37	42
	Throw (ft.)	2-4-12	3-7-15	4-9-19	6-11-22	8-12-25	9-14-28	10-15-29	12-19-32	14-22-35
Length = 24 in. Inlet = 8 in.	Total Pressure (in. w.g.)	0.042	0.066	0.095	0.129	0.168	0.213	0.263	0.379	0.515
	Static Pressure (in. w.g.)	0.032	0.050	0.072	0.098	0.128	0.162	0.201	0.289	0.393
	Flow Rate (cfm)	140	175	209	244	279	314	349	419	489
	Sound (NC)	15	22	28	33	38	41	45	51	55
	Throw (ft.)	6-11-22	9-14-28	11-17-30	13-19-33	15-22-35	17-25-37	18-28-39	22-30-43	26-33-46
Length = 24 in. Inlet = 10 in.	Total Pressure (in. w.g.)	0.074	0.116	0.167	0.227	0.297	0.375	0.463	0.667	
	Static Pressure (in. w.g.)	0.064	0.100	0.144	0.196	0.257	0.325	0.401	0.577	
	Flow Rate (cfm)	218	273	327	382	436	491	545	654	
	Sound (NC)	27	34	40	45	49	53	56	62	
	Throw (ft.)	11-17-31	14-21-34	17-26-38	20-29-41	23-31-44	26-33-46	28-34-49	31-38-53	
Length = 48 in. Inlet = 8 in.	Total Pressure (in. w.g.)	0.019	0.029	0.042	0.057	0.075	0.094	0.116	0.168	0.228
	Static Pressure (in. w.g.)	0.009	0.014	0.019	0.027	0.035	0.044	0.054	0.078	0.106
	Flow Rate (cfm)	140	175	209	244	279	314	349	419	489
	Sound (NC)	-	-	-	17	21	25	28	34	39
	Throw (ft.)	2-5-13	3-7-17	5-10-20	6-12-22	8-13-23	10-15-25	11-17-26	13-20-29	16-22-31
Length = 48 in. Inlet = 10 in.	Total Pressure (in. w.g.)	0.031	0.049	0.070	0.096	0.125	0.158	0.195	0.281	0.382
	Static Pressure (in. w.g.)	0.021	0.033	0.048	0.065	0.085	0.107	0.133	0.191	0.260
	Flow Rate (cfm)	218	273	327	382	436	491	545	654	763
	Sound (NC)	-	16	22	27	31	35	39	44	49
	Throw (ft.)	5-10-21	8-13-23	10-16-25	12-18-27	14-21-29	16-22-31	17-23-33	21-25-36	22-27-39
Length = 48 in. Inlet = 12 in.	Total Pressure (in. w.g.)	0.049	0.076	0.109	0.149	0.195	0.246	0.304	0.438	0.596
	Static Pressure (in. w.g.)	0.039	0.060	0.087	0.118	0.155	0.196	0.242	0.348	0.474
	Flow Rate (cfm)	314	393	471	550	628	707	785	942	1099
	Sound (NC)	18	25	31	36	40	44	48	54	58
	Throw (ft.)	10-15-25	13-19-28	15-22-30	18-23-33	20-25-35	22-26-37	23-28-39	25-30-43	27-33-47
Length = 60 in. Inlet = 8 in.	Total Pressure (in. w.g.)	0.015	0.023	0.033	0.044	0.058	0.074	0.091	0.131	0.178
	Static Pressure (in. w.g.)	0.005	0.007	0.010	0.014	0.018	0.023	0.028	0.041	0.056
	Flow Rate (cfm)	140	175	209	244	279	314	349	419	489
	Sound (NC)	-	-	-	-	16	20	23	29	34
	Throw (ft.)	1-3-11	2-5-13	3-7-15	4-9-17	5-11-18	7-12-19	8-13-20	11-15-22	12-17-23
Length = 60 in. Inlet = 10 in.	Total Pressure (in. w.g.)	0.024	0.038	0.054	0.074	0.096	0.122	0.150	0.216	0.294
	Static Pressure (in. w.g.)	0.014	0.022	0.032	0.043	0.056	0.071	0.088	0.126	0.172
	Flow Rate (cfm)	218	273	327	382	436	491	545	654	763
	Sound (NC)	-	-	17	22	26	30	33	39	44
	Throw (ft.)	3-7-16	5-10-18	7-12-19	10-15-21	11-16-22	12-17-23	14-18-25	16-19-27	17-21-29
Length = 60 in. Inlet = 12 in.	Total Pressure (in. w.g.)	0.037	0.058	0.083	0.113	0.148	0.187	0.231	0.333	0.453
	Static Pressure (in. w.g.)	0.027	0.042	0.061	0.083	0.108	0.137	0.169	0.243	0.331
	Flow Rate (cfm)	314	393	471	550	628	707	785	942	1099
	Sound (NC)	-	20	26	31	35	39	42	48	53
	Throw (ft.)	7-12-19	10-15-21	12-16-23	14-18-25	15-19-27	16-20-28	17-21-30	19-23-33	20-25-35

Performance Notes:

1. Tested in accordance with ASHRAE Standard 70 – 2023 Method of Testing for Rating the Performance of Air Outlets and Inlets.
2. Airflow is in cubic feet per minute [cfm].
3. NC, sound pressure levels, are based on a room absorption of 10 dB re 10⁻¹² Watts, and a single diffuser/grille.
4. Blanks "-" indicate an NC level below 15.
5. All pressures are in inches of water column [in. w.g.].
6. Pressures not listed can be calculated using the following formula:
P_{total} = P_{static} + P_{velocity}
7. Throw data is based on supply air and room air being at isothermal conditions.
8. Throw data is given in feet [ft] to terminal velocities of:
150 fpm (minimum)
100 fpm (middle)
50 fpm (maximum)
9. Blank area outside recommended operating range.
10. Does not include effects of ceiling radiation damper (TBD4-FR).

PERFORMANCE DATA

TBD4 – Blade Pattern Controller, 4 Slot (continued)

Model TBD4100 1 in. Slot Width

Length = 24 in. Inlet = 6 in.	Total Pressure (in. w.g.)	0.023	0.036	0.052	0.070	0.092	0.116	0.143	0.207	0.281
	Static Pressure (in. w.g.)	0.013	0.020	0.029	0.040	0.052	0.066	0.081	0.117	0.159
	Flow Rate (cfm)	78	98	118	137	157	176	196	235	274
	Sound (NC)	-	-	-	-	19	23	26	32	37
	Throw (ft.)	1-3-11	2-5-14	3-7-17	4-10-19	6-11-22	7-12-25	9-14-28	11-17-32	13-19-35
Length = 24 in. Inlet = 8 in.	Total Pressure (in. w.g.)	0.038	0.059	0.085	0.116	0.152	0.192	0.237	0.341	0.465
	Static Pressure (in. w.g.)	0.028	0.044	0.063	0.086	0.112	0.142	0.175	0.252	0.343
	Flow Rate (cfm)	140	175	209	244	279	314	349	419	489
	Sound (NC)	-	-	18	23	27	31	34	40	45
	Throw (ft.)	4-10-20	7-12-25	10-15-29	11-17-33	13-20-35	15-22-37	16-25-39	20-29-43	23-33-46
Length = 24 in. Inlet = 10 in.	Total Pressure (in. w.g.)	0.057	0.089	0.129	0.175	0.229	0.289	0.357	0.514	
	Static Pressure (in. w.g.)	0.047	0.074	0.106	0.144	0.189	0.239	0.295	0.425	
	Flow Rate (cfm)	218	273	327	382	436	491	545	654	
	Sound (NC)	-	18	24	29	33	37	40	46	
	Throw (ft.)	10-15-31	13-19-34	15-23-38	18-27-41	20-31-44	23-33-46	26-34-49	31-38-53	
Length = 48 in. Inlet = 8 in.	Total Pressure (in. w.g.)	0.021	0.033	0.047	0.064	0.083	0.105	0.130	0.188	0.255
	Static Pressure (in. w.g.)	0.011	0.017	0.024	0.033	0.043	0.055	0.068	0.098	0.133
	Flow Rate (cfm)	140	175	209	244	279	314	349	419	489
	Sound (NC)	-	-	-	-	18	21	25	31	36
	Throw (ft.)	1-3-12	2-5-15	3-7-18	4-10-21	6-12-23	7-13-25	9-15-26	12-18-29	14-21-31
Length = 48 in. Inlet = 10 in.	Total Pressure (in. w.g.)	0.030	0.048	0.068	0.093	0.122	0.154	0.190	0.274	0.373
	Static Pressure (in. w.g.)	0.020	0.032	0.046	0.063	0.082	0.104	0.128	0.184	0.251
	Flow Rate (cfm)	218	273	327	382	436	491	545	654	763
	Sound (NC)	-	-	-	19	23	27	31	36	41
	Throw (ft.)	3-8-18	5-11-23	8-14-25	11-16-27	12-18-29	14-21-31	15-23-33	18-25-36	21-27-39
Length = 48 in. Inlet = 12 in.	Total Pressure (in. w.g.)	0.042	0.066	0.095	0.129	0.169	0.214	0.264	0.380	0.517
	Static Pressure (in. w.g.)	0.032	0.050	0.073	0.099	0.129	0.163	0.201	0.290	0.395
	Flow Rate (cfm)	314	393	471	550	628	707	785	942	1099
	Sound (NC)	-	-	19	24	28	32	36	41	46
	Throw (ft.)	7-13-25	11-17-28	13-20-30	15-23-33	18-25-35	20-26-37	22-28-39	25-30-43	27-33-47
Length = 60 in. Inlet = 8 in.	Total Pressure (in. w.g.)	0.017	0.027	0.039	0.053	0.070	0.088	0.109	0.157	0.213
	Static Pressure (in. w.g.)	0.007	0.012	0.017	0.023	0.030	0.038	0.047	0.067	0.091
	Flow Rate (cfm)	140	175	209	244	279	314	349	419	489
	Sound (NC)	-	-	-	-	-	19	22	28	33
	Throw (ft.)	1-2-8	1-3-12	2-5-14	3-6-16	4-8-18	5-10-19	6-12-20	8-14-22	11-16-23
Length = 60 in. Inlet = 10 in.	Total Pressure (in. w.g.)	0.025	0.039	0.056	0.077	0.100	0.127	0.157	0.226	0.307
	Static Pressure (in. w.g.)	0.015	0.024	0.034	0.046	0.061	0.077	0.095	0.136	0.185
	Flow Rate (cfm)	218	273	327	382	436	491	545	654	763
	Sound (NC)	-	-	-	16	21	24	28	34	38
	Throw (ft.)	2-5-15	3-8-18	5-11-19	7-13-21	9-15-22	11-16-23	12-18-25	15-19-27	17-21-29
Length = 60 in. Inlet = 12 in.	Total Pressure (in. w.g.)	0.035	0.054	0.078	0.106	0.138	0.175	0.216	0.311	0.423
	Static Pressure (in. w.g.)	0.025	0.038	0.055	0.075	0.098	0.124	0.153	0.221	0.301
	Flow Rate (cfm)	314	393	471	550	628	707	785	942	1099
	Sound (NC)	-	-	16	21	25	29	33	38	43
	Throw (ft.)	5-10-19	7-13-21	10-16-23	12-18-25	14-19-27	16-20-28	17-21-30	19-23-33	20-25-35

Performance Notes:

1. Tested in accordance with ASHRAE Standard 70 – 2023 Method of Testing for Rating the Performance of Air Outlets and Inlets.
2. Airflow is in cubic feet per minute [cfm].
3. NC, sound pressure levels, are based on a room absorption of 10 dB re 10⁻¹² Watts, and a single diffuser/grille.
4. Blanks “-” indicate an NC level below 15.
5. All pressures are in inches of water column [in. w.g.].
6. Pressures not listed can be calculated using the following formula:
 $P_{total} = P_{static} + P_{velocity}$
7. Throw data is based on supply air and room air being at isothermal conditions.
8. Throw data is given in feet [ft] to terminal velocities of:
150 fpm (minimum)
100 fpm (middle)
50 fpm (maximum)
9. Blank area outside recommended operating range.
10. Does not include effects of ceiling radiation damper (TBD4-FR).

PERFORMANCE DATA

TBD4 – Blade Pattern Controller, 4 Slot (continued)

Model TBD4150 1-1/2 in. Slot Width

Length = 24 in. Inlet = 6 in.	Total Pressure (in. w.g.)	0.017	0.026	0.037	0.051	0.066	0.084	0.103	0.149	0.203
	Static Pressure (in. w.g.)	0.007	0.010	0.015	0.020	0.026	0.033	0.041	0.059	0.080
	Flow Rate (cfm)	78	98	118	137	157	176	196	235	274
	Sound (NC)	-	-	-	-	-	18	21	27	32
	Throw (ft.)	1-2-7	1-3-12	2-4-14	3-6-16	3-7-19	4-9-21	5-12-23	7-14-28	10-16-33
Length = 24 in. Inlet = 8 in.	Total Pressure (in. w.g.)	0.027	0.041	0.060	0.081	0.106	0.134	0.166	0.239	0.325
	Static Pressure (in. w.g.)	0.017	0.026	0.037	0.051	0.066	0.084	0.104	0.149	0.203
	Flow Rate (cfm)	140	175	209	244	279	314	349	419	489
	Sound (NC)	-	-	-	17	21	25	29	34	39
	Throw (ft.)	3-6-17	4-9-21	6-12-25	8-14-29	11-17-33	12-19-37	14-21-39	17-25-43	19-29-46
Length = 24 in. Inlet = 10 in.	Total Pressure (in. w.g.)	0.039	0.061	0.089	0.120	0.157	0.199	0.246	0.354	0.482
	Static Pressure (in. w.g.)	0.029	0.046	0.066	0.090	0.117	0.149	0.184	0.264	0.360
	Flow Rate (cfm)	218	273	327	382	436	491	545	654	763
	NC	-	-	18	23	27	31	35	40	45
	Throw (ft.)	6-13-26	10-16-32	13-19-38	15-23-41	17-26-44	19-29-46	22-32-49	26-38-53	30-41-58
Length = 48 in. Inlet = 8 in.	Total Pressure (in. w.g.)	0.015	0.024	0.034	0.046	0.061	0.077	0.095	0.136	0.185
	Static Pressure (in. w.g.)	0.005	0.008	0.012	0.016	0.021	0.026	0.032	0.046	0.063
	Flow Rate (cfm)	140	175	209	244	279	314	349	419	489
	Sound (NC)	-	-	-	-	-	17	20	26	31
	Throw (ft.)	1-2-7	1-3-11	2-4-15	2-6-17	3-7-20	4-9-22	5-11-24	7-15-29	10-17-31
Length = 48 in. Inlet = 10 in.	Total Pressure (in. w.g.)	0.022	0.034	0.048	0.066	0.086	0.109	0.135	0.194	0.264
	Static Pressure (in. w.g.)	0.012	0.018	0.026	0.035	0.046	0.059	0.072	0.104	0.142
	Flow Rate (cfm)	218	273	327	382	436	491	545	654	763
	Sound (NC)	-	-	-	-	18	22	25	31	36
	Throw (ft.)	2-4-15	3-7-19	4-10-23	6-13-27	8-15-29	10-17-31	12-19-33	15-23-36	18-27-39
Length = 48 in. Inlet = 12 in.	Total Pressure (in. w.g.)	0.029	0.046	0.066	0.090	0.118	0.149	0.184	0.264	0.360
	Static Pressure (in. w.g.)	0.019	0.030	0.044	0.059	0.078	0.098	0.121	0.175	0.238
	Flow Rate (cfm)	314	393	471	550	628	707	785	942	1099
	Sound (NC)	-	-	-	19	23	27	30	36	41
	Throw (ft.)	4-9-22	6-14-27	9-16-30	13-19-33	15-22-35	16-25-37	18-27-39	22-30-43	26-33-47
Length = 60 in. Inlet = 8 in.	Total Pressure (in. w.g.)	0.013	0.020	0.029	0.039	0.051	0.065	0.080	0.116	0.157
	Static Pressure (in. w.g.)	0.003	0.005	0.006	0.009	0.012	0.015	0.018	0.026	0.035
	Flow Rate (cfm)	140	175	209	244	279	314	349	419	489
	Sound (NC)	-	-	-	-	-	-	17	23	28
	Throw (ft.)	1-1-5	1-2-7	1-3-10	2-4-14	2-5-15	3-6-17	3-7-19	5-10-22	6-14-23
Length = 60 in. Inlet = 10 in.	Total Pressure (in. w.g.)	0.018	0.028	0.040	0.055	0.072	0.091	0.112	0.162	0.220
	Static Pressure (in. w.g.)	0.008	0.013	0.018	0.025	0.032	0.041	0.050	0.072	0.098
	Flow Rate (cfm)	218	273	327	382	436	491	545	654	763
	Sound (NC)	-	-	-	-	15	19	23	28	33
	Throw (ft.)	1-3-11	2-4-15	3-6-18	4-9-21	5-11-22	6-14-23	8-15-25	11-18-27	14-21-29
Length = 60 in. Inlet = 12 in.	Total Pressure (in. w.g.)	0.024	0.038	0.055	0.074	0.097	0.123	0.152	0.218	0.297
	Static Pressure (in. w.g.)	0.014	0.022	0.032	0.044	0.057	0.072	0.089	0.128	0.175
	Flow Rate (cfm)	314	393	471	550	628	707	785	942	1099
	Sound (NC)	-	-	-	16	20	24	27	33	38
	Throw (ft.)	3-6-17	4-9-21	6-13-23	8-15-25	10-17-27	13-20-28	14-21-30	17-23-33	20-25-35

Performance Notes:

1. Tested in accordance with ASHRAE Standard 70 – 2023 Method of Testing for Rating the Performance of Air Outlets and Inlets.
2. Airflow is in cubic feet per minute [cfm].
3. NC, sound pressure levels, are based on a room absorption of 10 dB re 10⁻¹² Watts, and a single diffuser/grille.
4. Blanks "-" indicate an NC level below 15.
5. All pressures are in inches of water column [in. w.g.].
6. Pressures not listed can be calculated using the following formula:
Ptotal = Pstatic + Pvelocity
7. Throw data is based on supply air and room air being at isothermal conditions.
8. Throw data is given in feet [ft] to terminal velocities of:
150 fpm (minimum)
100 fpm (middle)
50 fpm (maximum)
9. Blank area outside recommended operating range.
10. Does not include effects of ceiling radiation damper (TBD4-FR).



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