

# 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
Normal Length	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
48 in. 5 in. Round	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
60 in. 6 in. Round	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
Normal Length	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
48 in. 6 in. Round	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
60 in. 7 in. Round	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
Normal Length	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
48 in. 7 in. Round	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
60 in. 8 in. Round	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<sup>-12</sup> 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
Normal Length	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
Normal Length	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
Normal Length	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<sup>-12</sup> 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.