

PERFORMANCE DATA

Core Area	Core Velocity (fpm)		300	400	500	600	700	800	1000
	Velocity Pressure (in. w.g.)		0.006	0.010	0.016	0.022	0.030	0.040	0.062
Core Area	Total Pressure (in. w.g.)	0°	0.009	0.016	0.026	0.037	0.05	0.065	0.102
		22.5°	0.017	0.03	0.046	0.067	0.091	0.119	0.267
		45°	0.031	0.055	0.086	0.124	0.169	0.221	0.497
Ac = 0.15 ft. ² 7 x 5 6 x 5	Flow Rate (cfm) Sound (NC) Throw (ft)	0°	45	60	75	90	105	120	150
		22.5°	-	-	-	-	-	-	-
		45°	4-6-12	5-8-14	7-10-16	8-12-17	9-13-19	11-14-20	13-16-23
Ac = 0.18 ft. ² 8 x 4 7 x 5 6 x 6	Flow Rate (cfm) Sound (NC) Throw (ft)	0°	55	70	90	110	125	145	180
		22.5°	-	-	-	-	-	-	-
		45°	4-7-13	6-9-16	7-11-17	9-13-19	10-15-21	12-16-22	14-17-25
Ac = 0.22 ft. ² 10 x 4 8 x 5 7 x 6	Flow Rate (cfm) Sound (NC) Throw (ft)	0°	65	90	110	130	155	175	220
		22.5°	-	-	-	-	-	-	-
		45°	4-7-15	6-10-17	8-12-19	10-15-21	11-16-23	13-17-24	16-19-27
Ac = 0.26 ft. ² 12 x 4 10 x 5 8 x 6	Flow Rate (cfm) Sound (NC) Throw (ft)	0°	80	105	130	155	180	210	260
		22.5°	-	-	-	-	-	-	16
		45°	5-8-16	7-11-19	9-13-21	11-16-23	12-18-25	14-19-27	17-21-30
Ac = 0.30 ft. ² 14 x 4	Flow Rate (cfm) Sound (NC) Throw (ft)	0°	90	120	150	180	210	240	300
		22.5°	-	-	-	-	-	-	18
		45°	5-8-17	8-11-20	9-14-23	11-17-25	13-19-27	15-20-28	18-23-32
Ac = 0.34 ft. ² 16 x 4 12 x 5 10 x 6	Flow Rate (cfm) Sound (NC) Throw (ft)	0°	100	135	170	205	240	270	340
		22.5°	-	-	-	-	-	-	19
		45°	6-9-18	8-12-21	10-15-24	12-18-26	14-20-28	16-21-30	20-24-34
Ac = 0.39 ft. ² 18 x 4 14 x 5 12 x 6 8 x 8	Flow Rate (cfm) Sound (NC) Throw (ft)	0°	115	155	195	235	275	310	390
		22.5°	-	-	-	-	-	-	21
		45°	6-10-19	9-13-23	11-16-26	13-19-28	15-21-30	17-23-32	21-26-36

Performance Notes:

- Tested in accordance with ASHRAE Standard 70-2023 "Method of Testing for Rating the Performance of Air Outlets and Inlets."
- Air flow is in cfm.
- All pressures are in in. w.g.
- Throw values are measured in feet for terminal velocities of 150 fpm (minimum), 100 fpm (middle) and 50 fpm (maximum).
- Throw data is based on supply air and room air being at isothermal conditions.
- The NC values are based on a room absorption of 10dB re 10⁻¹² watts @ 0° deflection and one diffuser. Refer to blade position corrections table on page D30 for 22.5° and 45° deflection.
- Blanks "-" indicate an NC level below 15.
- Deflection** 0°–22.5°–45°
The listed deflection settings refer to horizontal deflection.

PERFORMANCE DATA

Core Area	Core Velocity (fpm)		300	400	500	600	700	800	1000
	Velocity Pressure (in. w.g.)		0.006	0.010	0.016	0.022	0.030	0.040	0.062
	Total Pressure (in. w.g.)	0°	0.009	0.016	0.026	0.037	0.05	0.065	0.102
		22.5°	0.017	0.03	0.046	0.067	0.091	0.119	0.267
		45°	0.031	0.055	0.086	0.124	0.169	0.221	0.497
Ac = 0.46 ft. ² 20 x 4 14 x 6 16 x 5 10 x 8	Flow Rate (cfm) Sound (NC)		140	185	230	275	320	370	460
			-	-	-	-	-	16	23
		Throw (ft)	0°	6-10-21	9-14-25	12-17-28	14-21-31	16-23-33	19-25-35
22.5°	5-8-17		7-11-20	9-14-22	11-17-24	13-19-26	15-20-28	18-22-32	
45°	3-5-10		5-7-12	6-9-14	7-10-15	8-12-16	9-12-18	11-14-20	
Ac = 0.52 ft. ² 24 x 4 16 x 6 18 x 5	Flow Rate (cfm) Sound (NC)		155	210	260	310	365	415	520
			-	-	-	-	-	17	24
		Throw (ft)	0°	7-11-22	10-15-27	12-19-30	15-22-32	17-25-35	20-27-37
22.5°	5-9-18		8-12-21	10-15-24	12-18-26	14-20-28	16-21-30	19-24-34	
45°	3-6-11		5-7-13	6-9-15	7-11-16	9-12-18	10-13-19	12-15-21	
Ac = 0.60 ft. ² 20 x 5 18 x 6 10 x 10 12 x 8	Flow Rate (cfm) Sound (NC)		180	240	300	360	420	480	600
			-	-	-	-	15	19	26
		Throw (ft)	0°	7-12-24	11-16-28	13-20-32	16-24-35	19-27-38	21-28-40
22.5°	6-10-19		9-13-23	11-16-25	13-19-28	15-21-30	17-23-32	21-25-36	
45°	4-6-12		5-8-14	7-10-16	8-12-17	9-13-19	11-14-20	13-16-23	
Ac = 0.69 ft. ² 24 x 5 20 x 6 12 x 10 14 x 8	Flow Rate (cfm) Sound (NC)		205	275	345	415	485	550	690
			-	-	-	-	17	21	27
		Throw (ft)	0°	8-13-26	11-17-31	14-21-34	17-26-37	20-29-40	23-31-43
22.5°	6-10-21		9-14-24	11-17-27	14-21-30	16-23-32	18-24-35	22-27-39	
45°	4-6-13		6-9-15	7-11-17	9-13-19	10-14-20	11-15-22	14-17-24	
Ac = 0.81 ft. ² 22 x 6 14 x 10 16 x 8	Flow Rate (cfm) Sound (NC)		245	325	405	485	565	650	810
			-	-	-	-	19	23	29
		Throw (ft)	0°	9-14-28	12-19-33	15-23-37	19-28-41	22-31-44	25-33-47
22.5°	7-11-22		10-15-26	12-19-30	15-22-32	17-25-35	20-26-37	24-30-42	
45°	4-7-14		6-9-17	8-12-18	9-14-20	11-15-22	12-17-23	15-18-26	
Ac = 0.90 ft. ² 18 x 8 16 x 10 12 x 12	Flow Rate (cfm) Sound (NC)		270	360	450	540	630	720	900
			-	-	-	15	20	24	30
		Throw (ft)	0°	9-15-29	13-20-35	16-24-39	20-29-43	23-33-46	26-35-49
22.5°	7-12-23		10-16-28	13-20-31	16-23-34	18-26-37	21-28-39	25-31-44	
45°	5-7-15		7-10-17	8-12-20	10-15-21	11-16-23	13-17-25	16-20-28	
Ac = 1.07 ft. ² 22 x 8 18 x 10 14 x 12	Flow Rate (cfm) Sound (NC)		320	430	535	640	750	855	1070
			-	-	-	17	22	26	32
		Throw (ft)	0°	10-16-32	14-21-38	18-27-43	21-32-47	25-36-50	28-38-54
22.5°	8-13-26		11-17-30	14-21-34	17-26-37	20-28-40	23-30-43	28-34-48	
45°	5-8-16		7-11-19	9-13-21	11-16-23	12-18-25	14-19-27	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. Air flow is in cfm.
3. All pressures are in in. w.g.
4. Throw values are measured in feet for terminal velocities of 150 fpm (minimum), 100 fpm (middle) and 50 fpm (maximum).
5. Throw data is based on supply air and room air being at isothermal conditions.
6. The NC values are based on a room absorption of 10dB re 10⁻¹² watts @ 0° deflection and one diffuser. Refer to blade position corrections table on page D30 for 22.5° and 45° deflection.
7. Blanks "-" indicate an NC level below 15.
8. **Deflection** 0°–22.5°–45°
The listed deflection settings refer to horizontal deflection.

PERFORMANCE DATA

Core Area	Core Velocity (fpm)	300	400	500	600	700	800	1000	
	Velocity Pressure (in. w.g.)	0.006	0.010	0.016	0.022	0.030	0.040	0.062	
	Total Pressure (in. w.g.)								
Ac = 1.18 ft. ² 24 x 8 16 x 12 20 x 10 14 x 14	Flow Rate (cfm)	355	470	590	710	825	945	1180	
	Sound (NC)	-	-	-	18	23	27	33	
	Throw (ft)	0°	10-17-34	15-22-40	19-28-45	22-34-49	26-37-53	30-40-56	36-45-63
		22.5°	8-13-27	12-18-32	15-22-36	18-27-39	21-30-42	24-32-45	29-36-51
45°		5-8-17	7-11-20	9-14-22	11-17-24	13-19-26	15-20-28	18-22-32	
Ac = 1.34 ft. ² 22 x 10 18 x 12 16 x 14	Flow Rate (cfm)	400	535	670	805	940	1070	1340	
	Sound (NC)	-	-	15	20	24	28	35	
	Throw (ft)	0°	11-18-36	16-24-43	20-30-48	24-36-52	28-40-56	32-43-60	39-48-67
		22.5°	9-14-29	13-19-34	16-24-38	19-29-42	22-32-45	25-34-48	31-38-54
45°		6-9-18	8-12-21	10-15-24	12-18-26	14-20-28	16-21-30	19-24-34	
Ac = 1.60 ft. ² 22 x 12 18 x 14	Flow Rate (cfm)	480	640	800	960	1120	1280	1600	
	Sound (NC)	-	-	17	22	26	30	37	
	Throw (ft)	0°	12-20-39	17-26-47	22-33-52	26-39-57	30-44-62	35-47-66	42-52-74
		22.5°	10-16-31	14-21-37	17-26-42	21-31-46	24-35-49	28-37-53	34-42-59
45°		6-10-20	9-13-23	11-16-26	13-20-28	15-22-31	17-23-33	21-26-37	
Ac = 1.80 ft. ² 24 x 12 20 x 14	Flow Rate (cfm)	540	720	900	1080	1260	1440	1800	
	Sound (NC)	-	-	18	23	28	32	38	
	Throw (ft)	0°	13-21-42	18-28-49	23-35-55	28-42-60	32-46-65	37-49-70	45-55-78
		22.5°	10-17-33	15-22-39	18-28-44	22-33-48	26-37-52	30-39-56	36-44-62
45°		6-10-21	9-14-25	12-17-28	14-21-30	16-23-33	18-25-35	23-28-39	
Ac = 2.08 ft. ² 24 x 14	Flow Rate (cfm)	625	830	1040	1250	1455	1665	2080	
	Sound (NC)	-	-	20	25	29	33	40	
	Throw (ft)	0°	14-22-45	20-30-53	25-37-59	30-45-65	35-50-70	40-53-75	48-59-84
		22.5°	11-18-36	16-24-42	20-30-47	24-36-52	28-40-56	32-42-60	39-47-67
45°		7-11-22	10-15-27	12-19-30	15-22-32	17-25-35	20-27-37	24-30-42	

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- Throw data is based on supply air and room air being at isothermal conditions.
- The NC values are based on a room absorption of 10dB re 10⁻¹² watts @ 0° deflection and one diffuser. Refer to blade position corrections table on page D30 for 22.5° and 45° deflection.
- Blanks "-" indicate an NC level below 15.
- Deflection** 0°–22.5°–45°
The listed deflection settings refer to horizontal deflection.

Corrections for various blade positons

Core Style	Deflection	Add NC
540/540S/640/640S	0°	0
540/540S/640/640S	22.5°	+4
540/540S/640/640S	45°	+12