

RM & RA SERIES

Round Diffusers, 3 and 4 Cones



PERFORMANCE DATA | RM1, 5RM1 (3-CONES, 2-POSITION) | HORIZONTAL THROW, NO DAMPER

DIFFUSERS | ROUND

SIZE	IP DATA								METRIC DATA						
	NECK VEL	AIR FLOW	POS 2		POS 1 THROW	POS 2 THROW	POS 1	POS 2	NECK VEL	AIR FLOW	POS 2		POS 1 THROW	POS 2 THROW	
			Ps	Pt							Ps	Pt			
in	fpm	cfm	in wg	in wg	ft	ft	NC	NC	m/s	L/s	Pa	Pa	m	m	
6	400	79	0.037	.047	2-2-5	2-3-6	-	-	2.03	37	9.3	11.7	0.5-0.7-1.5	0.6-0.9-1.7	
	600	118	0.084	.106	2-4-7	3-4-7	-	18	3.05	56	20.8	26.4	0.7-1.1-2.1	0.9-1.3-2.1	
	800	157	0.149	.189	3-5-8	4-6-8	19	26	4.06	74	37.1	47.0	1.0-1.5-2.4	1.1-1.7-2.5	
	1000	196	0.233	.295	4-6-9	5-6-9	26	32	5.08	93	57.9	73.4	1.2-1.9-2.7	1.4-2.0-2.8	
	1200	236	0.335	.425	5-7-10	6-7-10	32	38	6.10	111	83.4	105.7	1.5-2.1-3.0	1.7-2.1-3.0	
	1400	275	0.456	.578	6-7-11	6-8-11	37	42	7.11	130	113.5	143.9	1.7-2.3-3.2	1.9-2.3-3.3	
	1600	314	0.595	.755	7-8-11	7-8-12	41	46	8.13	148	148.2	188.0	2.0-2.4-3.4	2.0-2.5-3.5	
	1800	353	0.753	.955	7-8-12	7-9-12	45	50	9.14	167	187.6	237.9	2.1-2.6-3.6	2.1-2.6-3.7	
2000	393	0.930	1.180	7-9-13	7-9-13	48	53	10.16	185	231.6	293.7	2.2-2.7-3.8	2.3-2.8-3.9		
8	200	70	0.009	.012	1-2-3	1-2-4	-	-	1.02	33	2.3	2.9	0.3-0.5-1.0	0.4-0.6-1.1	
	600	209	0.084	.106	3-5-9	4-6-9	12	19	3.05	99	20.8	26.4	1.0-1.5-2.8	1.1-1.7-2.9	
	800	279	0.149	.189	4-7-11	5-8-11	21	28	4.06	132	37.1	47.0	1.3-2.0-3.2	1.5-2.3-3.3	
	1000	349	0.233	.295	5-8-12	6-9-12	28	34	5.08	165	57.9	73.4	1.7-2.5-3.6	1.9-2.6-3.7	
	1200	419	0.335	.425	7-9-13	8-9-13	34	39	6.10	198	83.4	105.7	2.0-2.8-4.0	2.3-2.9-4.0	
	1400	489	0.456	.578	8-10-14	8-10-14	39	44	7.11	231	113.5	143.9	2.3-3.0-4.3	2.5-3.1-4.4	
	1600	559	0.595	.755	9-11-15	9-11-15	44	48	8.13	264	148.2	188.0	2.6-3.2-4.6	2.7-3.3-4.7	
	1800	628	0.753	.955	9-11-16	9-12-16	47	51	9.14	297	187.6	237.9	2.8-3.4-4.8	2.9-3.5-5.0	
2000	698	0.930	1.180	10-12-17	10-12-17	51	54	10.16	329	231.6	293.7	3.0-3.6-5.1	3.0-3.7-5.2		
10	400	218	0.037	.047	3-4-8	3-5-9	-	-	2.03	103	9.3	11.7	0.8-1.2-2.5	1.0-1.4-2.9	
	600	327	0.084	.106	4-6-12	5-7-12	14	20	3.05	154	20.8	26.4	1.2-1.9-3.5	1.4-2.1-3.6	
	800	436	0.149	.189	5-8-13	6-9-14	23	29	4.06	206	37.1	47.0	1.7-2.5-4.0	1.9-2.9-4.1	
	1000	545	0.233	.295	7-10-15	8-11-15	30	35	5.08	257	57.9	73.4	2.1-3.1-4.5	2.4-3.3-4.6	
	1200	654	0.335	.425	8-12-16	9-12-17	36	41	6.10	309	83.4	105.7	2.5-3.5-4.9	2.9-3.6-5.1	
	1400	764	0.456	.578	10-12-18	10-13-18	41	45	7.11	360	113.5	143.9	2.9-3.8-5.3	3.2-3.9-5.5	
	1600	873	0.595	.755	11-13-19	11-14-19	45	49	8.13	412	148.2	188.0	3.3-4.0-5.7	3.4-4.1-5.8	
	1800	982	0.753	.955	12-14-20	12-14-20	49	52	9.14	463	187.6	237.9	3.5-4.3-6.1	3.6-4.4-6.2	
1900	1036	0.839	1.065	12-14-20	12-15-21	51	54	9.65	489	209.0	265.1	3.6-4.4-6.2	3.7-4.5-6.4		
12	200	157	0.009	.012	2-2-5	2-3-6	-	-	1.02	74	2.3	2.9	0.5-0.7-1.5	0.6-0.9-1.7	
	500	393	0.058	.074	4-6-12	5-7-13	-	16	2.54	185	14.5	18.4	1.2-1.9-3.7	1.4-2.1-3.9	
	800	628	0.149	.189	7-10-16	8-11-16	25	30	4.06	297	37.1	47.0	2.0-3.0-4.8	2.3-3.4-5.0	
	900	707	0.188	.239	7-11-17	8-12-17	29	33	4.57	334	46.9	59.5	2.2-3.3-5.1	2.6-3.7-5.3	
	1000	785	0.233	.295	8-12-18	9-13-18	32	36	5.08	371	57.9	73.4	2.5-3.7-5.4	2.9-3.9-5.5	
	1100	864	0.281	.357	9-13-19	10-14-19	35	39	5.59	408	70.1	88.8	2.7-4.0-5.7	3.1-4.1-5.8	
	1200	942	0.335	.425	10-14-20	11-14-20	38	42	6.10	445	83.4	105.7	3.0-4.2-5.9	3.4-4.3-6.1	
	1400	1100	0.456	.578	11-15-21	12-15-22	43	46	7.11	519	113.5	143.9	3.5-4.5-6.4	3.8-4.6-6.6	
1600	1257	0.595	.755	13-16-23	13-16-23	47	50	8.13	593	148.2	188.0	4.0-4.8-6.9	4.0-5.0-7.0		
14	200	214	0.009	.012	2-3-6	2-3-7	-	-	1.02	101	2.3	2.9	0.6-0.9-1.7	0.7-1.0-2.0	
	400	428	0.037	.047	4-6-11	4-7-13	-	11	2.03	202	9.3	11.7	1.2-1.7-3.5	1.3-2.0-4.0	
	600	641	0.084	.106	6-9-16	7-10-16	17	22	3.05	303	20.8	26.4	1.7-2.6-4.9	2.0-3.0-5.0	
	800	855	0.149	.189	8-11-19	9-13-19	26	31	4.06	404	37.1	47.0	2.3-3.5-5.7	2.7-4.0-5.8	
	900	962	0.188	.239	9-13-20	10-14-20	30	34	4.57	454	46.9	59.5	2.6-3.9-6.0	3.0-4.3-6.1	
	1000	1069	0.233	.295	10-14-21	11-15-21	33	37	5.08	505	57.9	73.4	2.9-4.3-6.3	3.3-4.6-6.5	
	1100	1176	0.281	.357	10-15-22	12-16-22	36	40	5.59	555	70.1	88.8	3.2-4.7-6.6	3.7-4.8-6.8	
	1200	1283	0.335	.425	11-16-23	13-16-23	39	42	6.10	605	83.4	105.7	3.5-4.9-6.9	4.0-5.0-7.1	
1400	1497	0.456	.578	13-17-25	15-18-25	44	47	7.11	706	113.5	143.9	4.0-5.3-7.5	4.4-5.4-7.7		
16	200	279	0.009	.012	2-3-7	3-4-8	-	-	1.02	132	2.3	2.9	0.7-1.0-2.0	0.8-1.1-2.3	
	400	559	0.037	.047	4-7-13	5-8-15	-	11	2.03	264	9.3	11.7	1.3-2.0-4.0	1.5-2.3-4.6	
	600	838	0.084	.106	7-10-18	8-11-19	18	23	3.05	395	20.8	26.4	2.0-3.0-5.6	2.3-3.4-5.7	
	800	1117	0.149	.189	9-13-21	10-15-22	27	31	4.06	527	37.1	47.0	2.6-4.0-6.5	3.0-4.6-6.6	
	900	1257	0.188	.239	10-15-23	11-16-23	31	35	4.57	593	46.9	59.5	3.0-4.5-6.9	3.4-5.0-7.0	
	1000	1396	0.233	.295	11-16-24	13-17-24	34	38	5.08	659	57.9	73.4	3.3-5.0-7.2	3.8-5.2-7.4	
	1100	1536	0.281	.357	12-18-25	14-18-25	38	41	5.59	725	70.1	88.8	3.6-5.4-7.6	4.2-5.5-7.8	
	1200	1676	0.335	.425	13-18-26	15-19-27	40	43	6.10	791	83.4	105.7	4.0-5.6-7.9	4.6-5.7-8.1	
1400	1955	0.456	.578	15-20-28	17-20-29	45	48	7.11	923	113.5	143.9	4.6-6.0-8.6	5.0-6.2-8.7		

NOTE: See notes on next page.

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PERFORMANCE DATA | RM1, 5RM1 (3-CONES, 2-POSITION) | HORIZONTAL THROW, NO DAMPER

SIZE	IP DATA								METRIC DATA						
	NECK VEL	AIR FLOW	POS 2		POS 1 THROW	POS 2 THROW	POS 1	POS 2	NECK VEL	AIR FLOW	POS 2		POS 1 THROW	POS 2 THROW	
			Ps	Pt							Ps	Pt			
in	fpm	cfm	in wg	in wg	ft	ft	NC	NC	m/s	L/s	Pa	Pa	m	m	
18	200	353	0.009	.012	2-4-7	3-4-8	-	-	1.02	167	2.3	2.9	0.7-1.1-2.2	0.9-1.3-2.6	
	400	707	0.037	.047	5-7-15	6-8-17	-	12	2.03	334	9.3	11.7	1.5-2.2-4.5	1.7-2.6-5.1	
	600	1060	0.084	.106	7-11-21	8-13-21	19	24	3.05	500	20.8	26.4	2.2-3.3-6.3	2.6-3.9-6.4	
	800	1414	0.149	.189	10-15-24	11-17-24	28	32	4.06	667	37.1	47.0	3.0-4.5-7.3	3.4-5.1-7.4	
	900	1590	0.188	.239	11-17-25	13-18-26	32	36	4.57	751	46.9	59.5	3.3-5.0-7.7	3.9-5.6-7.9	
	1000	1767	0.233	.295	12-18-27	14-19-27	35	39	5.08	834	57.9	73.4	3.7-5.6-8.1	4.3-5.9-8.3	
	1100	1944	0.281	.357	13-20-28	16-20-29	39	41	5.59	917	70.1	88.8	4.1-6.0-8.5	4.7-6.2-8.7	
	1200	2121	0.335	.425	15-21-29	17-21-30	41	44	6.10	1001	83.4	105.7	4.5-6.3-8.9	5.1-6.4-9.1	
1400	2474	0.456	.578	17-22-32	19-23-32	46	48	7.11	1168	113.5	143.9	5.2-6.8-9.6	5.7-7.0-9.8		
20*	200	436	0.009	.012	3-4-8	3-5-9	-	-	1.02	206	2.3	2.9	0.8-1.2-2.5	1.0-1.4-2.9	
	400	873	0.037	.047	5-8-16	6-9-19	-	13	2.03	412	9.3	11.7	1.7-2.5-5.0	1.9-2.9-5.7	
	600	1309	0.084	.106	8-12-23	9-14-24	20	24	3.05	618	20.8	26.4	2.5-3.7-7.0	2.9-4.3-7.2	
	800	1745	0.149	.189	11-16-27	13-19-27	29	33	4.06	824	37.1	47.0	3.3-5.0-8.1	3.8-5.7-8.3	
	900	1963	0.188	.239	12-18-28	14-20-29	33	36	4.57	927	46.9	59.5	3.7-5.6-8.6	4.3-6.2-8.8	
	1000	2182	0.233	.295	14-20-30	16-21-30	36	39	5.08	1030	57.9	73.4	4.1-6.2-9.0	4.8-6.5-9.2	
	1100	2400	0.281	.357	15-22-31	17-23-32	39	42	5.59	1133	70.1	88.8	4.5-6.7-9.5	5.2-6.9-9.7	
	1200	2618	0.335	.425	16-23-33	19-24-33	42	45	6.10	1236	83.4	105.7	5.0-7.0-9.9	5.7-7.2-10.1	
1400	3054	0.456	.578	19-25-35	21-25-36	47	49	7.11	1441	113.5	143.9	5.8-7.6-10.7	6.3-7.7-10.9		
24*	200	628	0.009	.012	3-5-10	4-6-11	-	-	1.02	297	2.3	2.9	1.0-1.5-3.0	1.1-1.7-3.4	
	400	1257	0.037	.047	7-10-20	8-11-23	-	14	2.03	593	9.3	11.7	2.0-3.0-5.9	2.3-3.4-6.9	
	600	1885	0.084	.106	10-15-28	11-17-28	22	25	3.05	890	20.8	26.4	3.0-4.5-8.4	3.4-5.1-8.6	
	800	2513	0.149	.189	13-20-32	15-23-33	31	34	4.06	1186	37.1	47.0	4.0-5.9-9.7	4.6-6.9-9.9	
	900	2827	0.188	.239	15-22-34	17-24-35	35	37	4.57	1334	46.9	59.5	4.5-6.7-10.3	5.1-7.4-10.5	
	1000	3142	0.233	.295	16-24-36	19-26-36	38	40	5.08	1483	57.9	73.4	5.0-7.4-10.8	5.7-7.8-11.1	
	1100	3456	0.281	.357	18-26-37	21-27-38	41	43	5.59	1631	70.1	88.8	5.5-8.0-11.4	6.3-8.2-11.6	
	1200	3770	0.335	.425	20-28-39	23-28-40	44	46	6.10	1779	83.4	105.7	5.9-8.4-11.9	6.9-8.6-12.1	
1400	4398	0.456	.578	23-30-42	25-31-43	49	50	7.11	2076	113.5	143.9	6.9-9.1-12.8	7.6-9.3-13.1		
30*	200	982	0.009	.012	4-6-12	5-7-14	-	-	1.02	463	2.3	2.9	1.2-1.9-3.7	1.4-2.1-4.3	
	400	1963	0.037	.047	8-12-24	9-14-28	-	15	2.03	927	9.3	11.7	2.5-3.7-7.4	2.9-4.3-8.6	
	600	2945	0.084	.106	12-18-35	14-21-35	23	27	3.05	1390	20.8	26.4	3.7-5.6-10.5	4.3-6.4-10.7	
	800	3927	0.149	.189	16-24-40	19-28-41	33	35	4.06	1853	37.1	47.0	5.0-7.4-12.1	5.7-8.6-12.4	
	900	4418	0.188	.239	18-28-42	21-31-43	37	38	4.57	2085	46.9	59.5	5.6-8.4-12.9	6.4-9.3-13.1	
	1000	4909	0.233	.295	20-31-45	23-32-46	40	41	5.08	2317	57.9	73.4	6.2-9.3-13.6	7.1-9.8-13.9	
	1100	5400	0.281	.357	22-33-47	26-34-48	43	44	5.59	2548	70.1	88.8	6.8-10.1-14.2	7.9-10.3-14.5	
	1200	5890	0.335	.425	24-35-49	28-35-50	46	47	6.10	2780	83.4	105.7	7.4-10.5-14.8	8.6-10.7-15.2	
1400	6872	0.456	.578	29-37-53	31-38-54	51	51	7.11	3243	113.5	143.9	8.7-11.3-16.0	9.5-11.6-16.4		
36*	200	1414	0.009	.012	5-7-15	6-8-17	-	-	1.02	667	2.3	2.9	1.5-2.2-4.5	1.7-2.6-5.1	
	400	2827	0.037	.047	10-15-29	11-17-34	12	16	2.03	1334	9.3	11.7	3.0-4.5-8.9	3.4-5.1-10.3	
	600	4241	0.084	.106	15-22-41	17-25-42	25	28	3.05	2002	20.8	26.4	4.5-6.7-12.6	5.1-7.7-12.9	
	800	5655	0.149	.189	20-29-48	23-34-49	34	36	4.06	2669	37.1	47.0	5.9-8.9-14.5	6.9-10.3-14.9	
	900	6362	0.188	.239	22-33-51	25-37-52	38	39	4.57	3002	46.9	59.5	6.7-10.0-15.4	7.7-11.2-15.8	
	1000	7069	0.233	.295	24-37-54	28-39-55	41	43	5.08	3336	57.9	73.4	7.4-11.2-16.3	8.6-11.8-16.6	
	1100	7775	0.281	.357	27-40-56	31-41-57	45	45	5.59	3670	70.1	88.8	8.2-12.1-17.1	9.4-12.3-17.4	
	1200	8482	0.335	.425	29-41-59	34-42-60	47	48	6.10	4003	83.4	105.7	8.9-12.6-17.8	10.3-12.9-18.2	
1400	9896	0.456	.578	34-45-63	37-46-65	52	52	7.11	4670	113.5	143.9	10.4-13.6-19.2	11.4-13.9-19.7		

NOTES: Throw values are given for isothermal conditions and terminal velocities of 150, 100, and 50 FPM (0.75, 0.50, and 0.25 m/s). NC values are based on octave band 2 - 7 sound power levels minus a room absorption of 10dB, re 10⁻¹² Watts. Dash in space denotes a NC value of less than 10. Data was obtained from tests conducted in accordance with ANSI/ASHRAE Standard 70, ISO Standard 5219, and ISO Standard 3741. See selection software for performance data not shown, including octave band data.

* Available in model RM1 only.