

Duct Size		Nom Duct	Core Area	Core Velocity	300	400	500	600	700	800	1000	1200											
Nom Width W	Nom Height H	ft2	ft2	Ps																			
8	4	0.22	0.13	0°	0.01	0.01	0.02	0.03	0.04	0.06	0.09	0.13											
				22.5°	0.01	0.02	0.03	0.04	0.05	0.07	0.09	0.11	0.16										
				45°	0.01	0.02	0.04	0.05	0.07	0.09	0.15	0.21	0.21										
				CFM	40	50	70	80	90	110	130	160	160										
				NC	<20	<20	<20	<20	<20	<20	26	31	31										
				Throw	0°	4	13	8	8	17	13	10	19	15	13	23	18	14	14	25	19		
				22.5°	3	9	6	6	12	9	7	14	11	9	17	13	10	18	19	19			
				45°	2	7	4	4	9	7	6	10	10	12	13	12	9	8	14	10			
				6	6	0.25	0.16	0°	5	14	9	8	18	14	11	21	16	14	25	19	19		
								22.5°	4	10	6	6	13	10	8	15	12	10	18	13	12	19	
45°	3	8	5					4	10	8	6	12	8	7	13	10	9	15					
CFM	50	60	80					100	110	130	160	160											
NC	<20	<20	<20					<20	<20	<20	20	27	32										
Throw	0°	5	14					9	8	18	14	11	21	16	14	25	19	19					
22.5°	4	10	6					6	13	10	8	15	12	10	18	13	12	19					
45°	3	8	5					4	10	8	6	12	8	7	13	10	9	15					
8	6	0.33	0.23					0°	6	17	11	9	21	17	14	25	19	17	30	23	33		
								22.5°	4	12	8	6	15	12	10	18	14	12	22	17	14	24	
				45°	3	9	6	5	12	9	8	14	10	9	17	13	10	18					
				CFM	70	90	110	140	160	180	230	230											
				NC	<20	<20	<20	<20	<20	<20	22	28	33										
				Throw	0°	6	17	11	9	21	17	14	25	19	17	30	23	33					
				22.5°	4	12	8	6	15	12	10	18	14	12	22	17	14	24					
				45°	3	9	6	5	12	9	8	14	10	9	17	13	10	18					
				8	8	0.44	0.32	0°	7	20	14	11	25	19	16	30	23	20	35	28	39		
								22.5°	5	14	10	8	18	14	12	22	17	14	25	20	20		
45°	4	11	8					6	14	10	9	17	13	11	19	15	15						
CFM	100	130	160					190	230	260	320	320											
NC	<20	<20	<20					<20	<20	23	30	35											
Throw	0°	7	20					14	11	25	19	16	30	23	20	35	28	39					
22.5°	5	14	10					8	18	14	12	22	17	14	25	20	20						
45°	4	11	8					6	14	10	9	17	13	11	19	15	15						
12	6	0.50	0.36					0°	7	21	14	12	27	21	17	31	24	22	38	29	41		
								22.5°	5	15	10	9	19	15	12	22	17	16	27	21	21		
				45°	4	12	8	7	15	12	9	17	13	12	21	16	16						
				CFM	110	140	180	220	250	290	360	360											
				NC	<20	<20	<20	<20	20	24	30	35											
				Throw	0°	7	21	14	12	27	21	17	31	24	22	38	29	41					
				22.5°	5	15	10	9	19	15	12	22	17	16	27	21	21						
				45°	4	12	8	7	15	12	9	17	13	12	21	16	16						
				10	10	0.69	0.54	0°	9	25	18	15	33	25	21	39	29	27	46	36	50		
								22.5°	6	18	13	11	24	18	15	28	21	19	33	26	21	36	
45°	5	14	10					8	18	14	12	21	16	15	25	20	20						
CFM	160	220	270					320	380	430	540	540											
NC	<20	<20	<20					<20	21	25	32	37											
Throw	0°	9	25					18	15	33	25	21	39	29	27	46	36	50					
22.5°	6	18	13					11	24	18	15	28	21	19	33	26	21	36					
45°	5	14	10					8	18	14	12	21	16	15	25	20	20						
14	8	0.78	0.61					0°	9	27	19	16	34	27	22	41	31	28	49	38	53		
								22.5°	6	19	14	12	24	19	16	30	22	20	35	27	22		
				45°	5	15	10	9	19	15	12	23	17	15	27	21	21						
				CFM	180	240	300	360	420	480	610	610											
				NC	<20	<20	<20	<20	22	26	32	38											
				Throw	0°	9	27	19	16	34	27	22	41	31	28	49	38	53					
				22.5°	6	19	14	12	24	19	16	30	22	20	35	27	22						
				45°	5	15	10	9	19	15	12	23	17	15	27	21	21						
				12	12	1.00	0.81	0°	11	31	21	18	40	31	25	47	36	33	56	44	62		
								22.5°	8	22	15	13	29	22	18	34	26	24	40	32	26	45	
45°	6	17	12					10	22	17	14	26	20	18	31	24	20	34					
CFM	240	320	410					490	570	650	810	810											
NC	<20	<20	<20					<20	23	27	34	39											
Throw	0°	11	31					21	18	40	31	25	47	36	33	56	44	62					
22.5°	8	22	15					13	29	22	18	34	26	24	40	32	26	45					
45°	6	17	12					10	22	17	14	26	20	18	31	24	20	34					
16	10	1.11	0.91					0°	11	33	23	19	42	33	27	50	38	34	60	46	65		
								22.5°	8	24	17	14	30	24	19	36	27	24	43	33	27	47	
				45°	6	18	13	10	23	18	15	28	21	19	33	25	21	36					
				CFM	270	360	450	540	630	730	910	910											
				NC	<20	<20	<20																

Duct Size		Nom Duct	Core Area	Core Velocity	300	400	500	600	700	800	1000	1200																	
Nom Width W	Nom Height H	ft2	ft2	Ps	0°	0.01	0.01	0.02	0.03	0.04	0.06	0.09	0.13																
					22.5°	0.01	0.02	0.03	0.04	0.05	0.07	0.11	0.16																
					45°	0.01	0.02	0.04	0.05	0.07	0.09	0.15	0.21																
24	18	3.00	2.66	CFM	800	1070	1330	1600	1860	2130	2660	3200																	
				NC	<20	<20	<20	24	28	32	39	44																	
				Throw	0°	20	30	56	26	40	65	33	49	72	39	56	79	112											
					22.5°	14	22	40	19	29	47	24	35	52	28	40	57	33	43	61	38	47	66	42	52	73	47	57	81
					45°	11	17	31	14	22	36	18	27	40	21	31	43	25	33	47	29	36	50	32	40	56	36	43	62
				22	22	3.36	3.01	CFM	900	1200	1500	1800	2110	2410	3010	3610													
NC	<20	<20	<20					25	29	33	39	45																	
Throw	0°	21	31					59	28	42	69	35	52	77	42	59	84	49	64	91	56	69	97	63	77	109	69	84	119
	22.5°	15	22					42	20	30	50	25	37	55	30	42	60	35	46	66	40	50	70	45	55	78	50	60	86
	45°	12	17					32	15	23	38	19	29	42	23	32	46	27	35	50	31	38	53	35	42	60	38	46	65
24	24	4.00	3.61					CFM	1080	1450	1810	2170	2530	2890	3610	4340													
				NC	<20	<20	20	25	30	34	40	45																	
				Throw	0°	23	34	65	31	46	75	38	58	84	46	65	92	54	70	100	61	75	106	69	84	119	75	92	130
					22.5°	17	24	47	22	33	54	27	42	60	33	47	66	39	50	72	44	54	76	50	60	86	54	66	94
					45°	13	19	36	17	25	41	21	32	46	25	36	51	30	39	55	34	41	58	38	46	65	41	51	72
				28	22	4.28	3.88	CFM	1160	1550	1940	2330	2710	3100	3880	4650													
NC	<20	<20	20					26	30	34	40	46																	
Throw	0°	24	36					67	32	48	78	40	60	87	48	68	96	55	73	103	63	78	110	71	87	123	78	95	135
	22.5°	17	26					48	23	35	56	29	43	63	35	49	69	40	53	74	45	56	79	51	63	89	56	68	97
	45°	13	20					37	18	26	43	22	33	48	26	37	53	30	40	57	35	43	61	39	48	68	43	52	74
36	18	4.50	4.06					CFM	1220	1630	2030	2440	2850	3250	4060	4880													
				NC	<20	<20	21	26	30	34	41	46																	
				Throw	0°	24	37	69	33	49	80	41	61	89	49	69	98	57	75	106	65	80	113	73	89	126	80	98	138
					22.5°	17	27	50	24	35	58	30	44	64	35	50	71	41	54	76	47	58	81	53	64	91	58	71	99
					45°	13	20	38	18	27	44	23	34	49	27	38	54	31	41	58	36	44	62	40	49	69	44	54	76
				32	22	4.89	4.45	CFM	1340	1780	2230	2670	3120	3560	4450	5340													
NC	<20	<20	21					26	31	35	41	46																	
Throw	0°	26	38					72	34	51	84	43	64	93	51	72	102	60	78	111	68	84	118	76	93	132	84	102	145
	22.5°	19	27					52	24	37	60	31	46	67	37	52	73	43	56	80	49	60	85	55	67	95	60	73	104
	45°	14	21					40	19	28	46	24	35	51	28	40	56	33	43	61	37	46	65	42	51	73	46	56	80
30	24	5.00	4.56					CFM	1370	1830	2280	2740	3200	3650	4560	5480													
				NC	<20	<20	21	26	31	35	41	46																	
				Throw	0°	26	39	73	34	52	85	43	64	95	52	73	104	60	79	112	69	85	120	77	95	134	85	104	147
					22.5°	19	28	53	24	37	61	31	46	68	37	53	75	43	57	81	50	61	86	55	68	96	61	75	106
					45°	14	21	40	19	29	47	24	35	52	29	40	57	33	43	62	38	47	66	42	52	74	47	57	81
				34	22	5.19	4.74	CFM	1420	1900	2370	2850	3320	3790	4740	5690													
NC	<20	<20	21					26	31	35	41	46																	
Throw	0°	26	39					75	35	53	86	44	66	96	53	75	106	61	81	114	70	86	122	79	96	136	86	106	149
	22.5°	19	28					54	25	38	62	32	48	69	38	54	76	44	58	82	50	62	88	57	69	98	62	76	107
	45°	14	21					41	19	29	47	24	36	53	29	41	58	34	45	63	39	47	67	43	53	75	47	58	82
40	20	5.56	5.07					CFM	1520	2030	2540	3040	3550	4060	5070	6080													
				NC	<20	<20	22	27	31	35	41	46																	
				Throw	0°	27	41	77	36	54	89	45	68	100	54	77	109	63	83	118	73	89	126	81	100	141	89	109	154
					22.5°	19	30	55	26	39	64	32	49	72	39	55	78	45	60	85	53	64	91	58	72	102	64	78	111
					45°	15	23	42	20	30	49	25	37	55	30	42	60	35	46	65	40	49	69	45	55	78	49	60	85
				36	24	6.00	5.51	CFM	1650	2210	2760	3310	3860	4410	5510	6620													
NC	<20	<20	22					27	32	35	42	47																	
Throw	0°	28	42					80	38	57	93	47	71	104	57	81	114	66	87	123	76	93	131	85	104	147	93	114	161
	22.5°	20	30					58	27	41	67	34	51	75	41	58	82	48	63	89	55	67	94	61	75	106	67	82	116
	45°	15	23					44	21	31	51	26	39	57	31	45	63	36	48	68	42	51	72	47	57	81	51	63	89
30	30	6.25	5.76					CFM	1730	2310	2880	3460	4040	4610	5760	6920													
				NC	<20	<20	22	27	32	35	42	47																	
				Throw	0°	29	44	82	39	58	95	48	72	106	58	82	116	68	89	126	77	95	134	87	106	150	95	116	165
					22.5°	21	32	59	28	42	68	35	52	76	42	59	84	49	64	91	55	68	96	63	76	108	68	84	119
					45°	16	24	45	21	32	52	26	40	58	32	45	64	37	49	69	42	52	74	48	58	83	52	64	91
				36	26	6.50	6.00	CFM	1800	2400	3000	3600	4200	4800	6000	7200													
NC	<20	<20	22					28	32	35	42	48																	
Throw	0°	30	44					84	39	59	97	49	74	108	59	84	119	69	91	128	79	97	137	89	108	153	97	119	168
	22.5°	22	32					60	28	42	70	35	53	78	42	60	86	50	66	92	57	70	99	64	78	110	70	86	121
	45°	17	24					46	21	32	53	27	41	59	32	46	65	38	50	70	43	53	75	49	59	84	53	65	92
32	32	7.11	6.59					CFM	1980	2640	3300	3960	4620	5270	6590	7910													
				NC	<20	<20	23	28	32	35	42	48																	
				Throw	0°	31	47	88	41	62	102	52	78	114	62	88	125	72	95	135	83	102	144	93	114	161	102	125	176
					22.5°	22	34	63	30	45	73	37	56	82	45	63	90	52	68	97	60	73	104	67	82	116	73	90	127
					45°	17	26	48	23	34	56	29	43	63	34	48	69	40	52	74	46	56	79	51	63	89	56	69	97

Test Standard

- ANSI / ASHRAE standard 70
- Isothermal air used during testing. For large grilles with a cooling differential, the drop of the air stream should be evaluated.

Throw

- The numbers shown are throw distances, in feet, measured along the jet trajectory axis relating to terminal velocities of 150, 100, & 50 fpm, with the jet attached to the ceiling surface. For exposed duct installation with free, unattached jet, multiple throw distance in table x .70
- 0°, 22.5°, 45° represent the spread angle settings
- Terminal velocity is the air speed, in feet per minute, measured in the supply air stream.

Sound Levels</

