




Engineering Data for SERIES MA

SIZE Eff.Area	Velocity Duct Pt	400 .038	500 .108	600 .155	700 .220	800 .285	1000 .438
6x6 0.11ft ²	CFM	108	139	170	201	216	278
	Throw	5\7\9	6\9\12	7\10\14	8\12\16	9\13\17	11\15\19
	NC	<20	20	25	25-30	30	35
8x8 0.21ft ²	CFM	201	247	293	340	401	494
	Throw	8\10.5\13	9\12\15	10\14\18	11\15.5\20	12\16\21	14\20\26
	NC	<20	20	25	25-30	30	35
10x10 0.33ft ²	CFM	234	297	359	420	470	593
	Throw	10\12.5\15	10\14.5\19	12\16.5\21	13\18\22	14\19\24	16\22\27
	NC	20	20	25	25-30	30	40
12x12 0.475ft ²	CFM	448	525	648	757	865	1081
	Throw	11\15\19	13\17\21	15\19\23	16\20\25	17\22\27	19\26\32
	NC	20	25	25-30	30	35	40
14x14 0.65ft ²	CFM	587	741	896	1034	1189	1482
	Throw	12\17\21	14\19\24	17\22\27	18\23\28	19\24\29	21\29\37
	NC	20	25	25-30	30	35	40
16x16 0.75ft ²	CFM	744	918	1115	1309	1487	1873
	Throw	13\19\25	16\22\28	18\24\30	19\25\31	21\27\33	23\31\39
	NC	<20	25	30	35	35	45
18x18 1.0ft ²	CFM	949	1205	1473	1695	1903	2379
	Throw	15\21\27	18\26\32	20\27\33	22\29\36	24\31\38	25\33\40
	NC	<20	25	30	35	40	45
20x20 1.18ft ²	CFM	1130	1166	1380	1618	1856	2284
	Throw	18\23\28	21\27\33	23\29\35	25\32\39	26\34\41	28\36\44
	NC	<20	25	30	35	40	45
24x24 1.70ft ²	CFM	1726	2122	2546	2971	3395	4244
	Throw	19\27\33	25\32\39	28\27\46	29\38\47	32\40\48	35\45\55
	NC	<20	25	30	40	45	45-50

Throw Multipliers for Different Configurations

	Factor
1. 	1.00
2. 	1.40
3. 	2.00

FOOTNOTE:

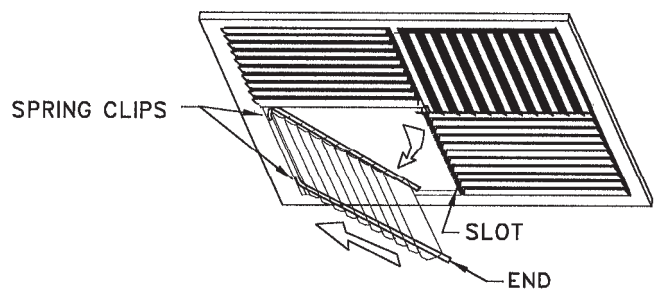
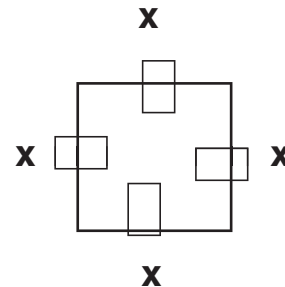
SIZE: Nominal size or the duct opening.

EFFECTIVE AREA: The space between the vanes actually utilized by the air.

VELOCITY: The actual velocity of the air through the vanes measured with a velometer or similar device.

DUCT Pt: The total pressure behind the register in the duct forcing that air through the register.

THROW: The throws noted in the tables are the distance from the register to where the air stream velocity has dropped to not under 100/75/50 F.P.M.



NOISE CRITERIA: NC A scale.

- (1) Below NC25 extremely quiet.
- (2) Below NC30 Quiet Office.
- (3) Below NC35 Conference Rooms; normal voice 10-30 ft.
- (4) Below NC40 Conference Rooms; 6-12 ft. normal voice.
- (5) NC45 Conference Rooms; 3-6 ft. normal voice.