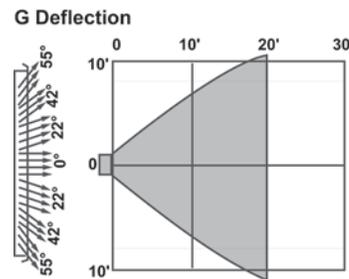
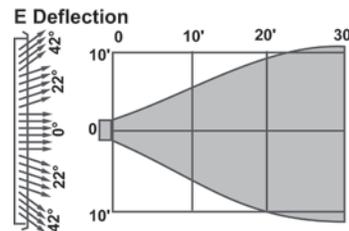
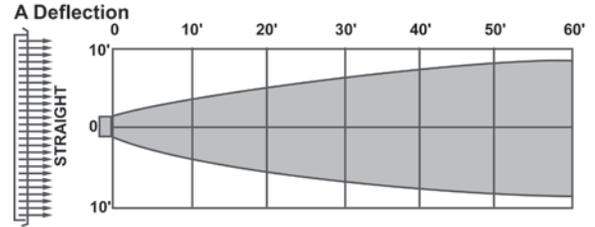


Recommended NC Criteria

	Communication Environment	Typical Occupancy
< NC 25	Extremely quiet environment; suppressed speech is quite audible; suitable for acute pickup of all sounds.	Broadcasting studios, concert halls, music rooms.
NC 30	Very quiet office; suitable for large conferences; telephone use satisfactory.	Residences, theaters, libraries, executive offices, directors rooms.
NC 35	Quiet office; satisfactory for conference at a 15-foot table; normal voice 10 to 30 feet; telephone use satisfactory.	Private offices, schools, hotel guestrooms, courtrooms, churches, hospital rooms.
NC 40	Satisfactory for conferences at a 6-to 8-foot table; normal voice 6 to 12 feet; telephone use satisfactory.	General office, labs, dining rooms.
NC 45	Satisfactory for conferences at a 4- to 5-foot table; normal voice 3 to 6 feet; raised voice 6 to 12 feet; telephone use occasionally difficult.	Retail stores, cafeterias, lobby areas, large drafting and engineering offices, reception areas.
> NC 50	Unsatisfactory for conference of more than two or three persons; normal voice 1 to 2 feet; raised voice 3 to 6 feet; telephone use slightly difficult.	Computer rooms, stenographic pools, print machine rooms, process areas.

Air Pattern Obtained with Various Deflection Settings



Velocity Limitations for Various Applications

The sound caused by an air outlet in operation is directly proportional to the velocity of the air passing through it. By selecting outlets of proper sizes, face velocities can be controlled within safe sound limits.

The following recommended face velocities are within the safe sound limits for most applications, when NC data are not available.

Application	Recommended Velometer Velocities
Broadcasting Studios	500 FPM
Residences	500 to 750 FPM
Apartments	500 to 750 FPM
Churches	500 to 750 FPM
Hotel Guestrooms	500 to 750 FPM
Legitimate Theaters	500 to 1000 FPM
Private Offices, acoustically treated	500 to 1000 FPM
Private Offices, not treated	1000 to 1250 FPM
Motion Picture Theaters	1000 to 1250 FPM
General Offices	1250 to 1500 FPM
Stores, upper floors	1500 FPM
Stores, main floors	1500 FPM
Industrial Buildings	1500 to 2000 FPM

Rezzin Floor Register

Face Velocity		300	400	500	600	700	800	900	1000
2 x 12 Ak .084	CFM	25	34	42	50	59	67	76	84
	Ps	.01	.02	.03	.05	.06	.08	.10	.12
	Throw	2.0	2.5	3.5	4.0	4.5	5.5	6.0	6.5
	Spread	1.5	2.0	2.5	3.0	3.0	3.5	4.0	4.5
4 x 10 Ak .141	CFM	42	56	71	85	99	113	127	141
	Ps	.02	.02	.03	.04	.06	.07	.09	.11
	Throw	2.0	2.5	3.0	3.5	4.5	5.0	5.5	6.0
	Spread	0.5	1.5	2.5	3.0	4.0	5.0	5.5	6.5
4 x 12 Ak .157	CFM	47	63	79	94	110	126	141	157
	Ps	.02	.03	.04	.05	.07	.09	.11	.13
	Throw	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0
	Spread	0.5	1.5	2.5	4.0	5.0	6.0	7.0	8.0

Terminal Velocity of 50 FPM

Rezzin T-Bar Directional Diffuser

		Neck Velocity FPM									
		400	500	600	700	800	900	1000	1200	1400	1600
6"	CFM	79	98	118	137	157	177	196	236	275	314
	Static Pressure	.003	.005	.006	.008	.011	.013	.016	.023	.031	.041
	Total Pressure	.015	.024	.034	.046	.060	.076	.094	.134	.183	.238
	NC	-	-	-	-	-	-	15	22	26	31
8"	CFM	140	175	209	244	279	314	349	419	489	559
	Static Pressure	.009	.014	.021	.028	.037	.046	.057	.082	.111	.145
	Total Pressure	.019	.030	.043	.058	.076	.096	.118	.170	.231	.301
	NC	-	-	-	-	18	22	23	31	35	39
10"	CFM	218	273	327	382	436	491	545	654	764	873
	Static Pressure	.009	.014	.021	.028	.037	.047	.058	.083	.113	.148
	Total Pressure	.019	.029	.042	.058	.075	.095	.117	.169	.230	.300
	NC	-	-	-	-	18	22	26	31	36	40
12"	CFM	314	393	471	550	628	707	785	942	1100	1257
	Static Pressure	.015	.022	.032	.044	.059	.076	.095	.142	.198	.264
	Total Pressure	.025	.038	.054	.074	.098	.126	.157	.231	.319	.422
	NC	-	-	-	18	20	26	29	36	41	45
14"	CFM	428	535	641	748	855	962	1069	1283	1497	1710
	Static Pressure	.015	.023	.033	.044	.057	.072	.089	.128	.175	.228
	Total Pressure	.025	.037	.053	.072	.094	.119	.146	.211	.287	.375
	NC	-	-	-	15	21	25	29	35	40	44

Rezzin T-Bar Throw - Terminal Velocity of 75 FPM

Neck Velocity	400	500	600	700	800	900	1000	1200	1400	1600
CFM	79	98	118	137	157	177	196	236	275	314
6"	3.1	3.9	4.6	5.4	6.2	7.0	7.7	9.3	10.8	12.4
CFM	140	175	209	244	279	314	349	419	489	559
8"	5.3	6.7	8.0	9.3	10.7	12.0	13.3	16.0	18.7	21.3
CFM	218	273	327	382	436	491	545	654	764	873
10"	6.3	7.9	9.4	11.0	12.6	14.1	15.7	18.8	22.0	25.1
CFM	314	393	471	550	628	707	785	942	1100	1257
12"	7.1	8.8	10.6	12.4	14.2	15.9	17.7	21.2	24.8	28.3
CFM	428	535	641	748	855	962	1069	1283	1497	1710
14"	9.1	11.3	13.6	15.9	18.1	20.4	22.7	27.2	31.8	36.3

Rezzin T-Bar Throw - Terminal Velocity of 150 FPM

Neck Velocity	400	500	600	700	800	900	1000	1200	1400	1600
CFM	79	98	118	137	157	177	196	236	275	314
6"	1.3	1.7	2.0	2.4	2.7	3.0	3.4	4.0	4.7	5.4
CFM	140	175	209	244	279	314	349	419	489	559
8"	2.2	2.7	3.3	3.8	4.4	4.9	5.5	6.6	7.7	8.8
CFM	218	273	327	382	436	491	545	654	764	873
10"	2.5	3.1	3.7	4.4	5.0	5.6	6.2	7.5	8.7	10.0
CFM	314	393	471	550	628	707	785	942	1100	1257
12"	3.8	4.8	5.8	6.7	7.7	8.6	9.6	11.5	13.4	15.3
CFM	428	535	641	748	855	962	1069	1283	1497	1710
14"	4.2	5.2	6.3	7.3	8.3	9.4	10.4	12.5	14.6	16.7