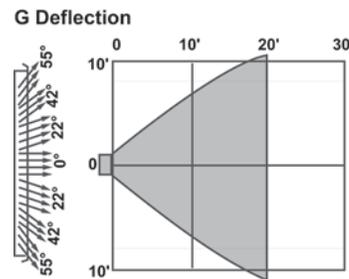
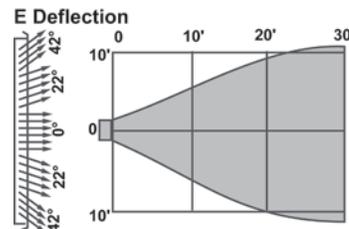
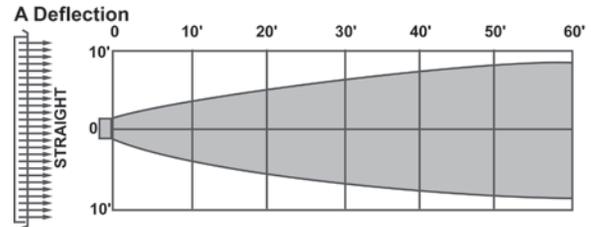


**Recommended NC Criteria**

	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



Series 600 / AL600, Series SW Stamped-Face Register

601 / AL601 / SW1 One-Way

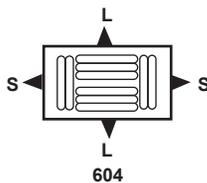
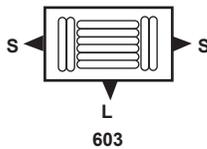
Face Velocity	300	400	500	600	700	800	900	1000
Pressure Loss	.006	.010	.016	.022	.031	.040	.050	.062
8 x 6 CFM	40	55	70	90	100	110	125	140
Ak .140 Throw	5.0	6.0	8.0	9.0	11.0	12.0	14.0	15.0
10 x 6 CFM	55	80	95	110	130	150	165	185
Ak .185 Throw	5.0	7.0	10.0	11.0	13.0	14.0	16.0	18.0
12 x 6 CFM	70	90	115	135	160	180	205	225
Ak .225 Throw	6.0	8.0	12.0	12.0	14.0	16.0	18.0	20.0
14 x 6 CFM	85	115	145	175	205	230	260	290
Ak .290 Throw	7.0	9.0	16.0	14.0	17.0	19.0	21.0	24.0
16 x 6 CFM	100	130	165	200	230	265	295	330
Ak .330 Throw	8.0	10.0	18.0	15.0	18.0	20.0	23.0	25.0
18 x 6 CFM	115	155	195	235	275	310	350	390
Ak .390 Throw	8.0	11.0	21.0	17.0	20.0	22.0	25.0	28.0
20 x 6 CFM	130	175	220	265	310	360	395	440
Ak .440 Throw	5.0	12.0	24.0	18.0	21.0	24.0	27.0	30.0

Terminal Velocity of 75 FPM

602 / AL602 / SW2 Two-Way

Face Velocity	300	400	500	600	700	800	900	1000
Pressure Loss	.006	.010	.016	.022	.031	.040	.050	.062
8 x 4 CFM	25	35	45	55	65	70	80	90
Ak .090 Throw	2.0	3.5	4.5	5.5	6.5	7.0	8.0	9.0
6 x 6 CFM	30	40	50	65	75	85	95	105
Ak .105 Throw	3.0	3.5	4.5	6.0	7.0	8.0	9.0	10.0
10 x 4 CFM	35	45	60	70	80	90	105	115
Ak .115 Throw	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
12 x 4 CFM	40	55	70	85	100	110	125	140
Ak .140 Throw	3.5	4.5	5.5	6.5	8.0	9.0	10.0	11.5
10 x 6 CFM	55	75	95	110	130	150	165	185
Ak .185 Throw	4.0	5.0	6.5	8.0	9.0	10.5	12.0	13.0
8 x 8 CFM	60	80	100	120	140	160	180	200
Ak .200 Throw	4.0	5.5	7.0	8.0	9.5	11.0	12.5	13.5
12 x 6 CFM	70	90	115	135	160	180	205	225
Ak .225 Throw	4.5	6.0	7.5	8.5	10.5	12.0	13.0	14.5
14 x 6 CFM	85	115	145	175	205	230	260	290
Ak .290 Throw	5.0	6.5	8.5	10.0	11.5	13.5	15.0	17.0
10 x 10 CFM	95	125	155	185	215	250	280	310
Ak .310 Throw	5.0	7.0	8.5	10.0	12.0	14.0	15.5	17.0
12 x 8 CFM	95	130	160	190	225	255	290	320
Ak .320 Throw	5.5	7.0	9.0	10.5	12.5	14.0	16.0	18.0
14 x 8 CFM	115	155	195	235	275	310	350	390
Ak .390 Throw	6.0	8.0	10.0	12.0	14.0	16.0	18.0	20.0
12 x 12 CFM	140	190	235	280	330	375	425	470
Ak .470 Throw	6.5	8.5	10.5	12.5	15.0	17.0	19.0	21.0

Terminal Velocity of 75 FPM



603/AL603/SW3 Three-Way

Face Velocity	300	400	500	600	700	800	900	1000
Pressure Loss	.006	.010	.016	.022	.031	.040	.050	.062
8 x 4 Total CFM	25	35	45	55	65	70	80	90
Ak .090 CFM L/S	13/6	17/9	24/11	29/13	34/16	37/17	42/19	48/22
Throw L/S	3.0/2.5	4.0/3.0	5.0/3.5	6.0/4.0	7.0/5.0	7.5/5.5	8.5/6.0	10.0/6.5
6 x 6 Total CFM	30	40	50	65	75	85	95	105
Ak .105 CFM L/S	10/10	13/14	16/17	21/22	24/26	27/29	30/32	34/36
Throw L/S	3.0/3.0	3.5/3.5	4.0/4.0	5.5/5.5	6.0/6.0	7.0/7.0	8.0/8.0	9.0/9.0
10 x 4 Total CFM	35	45	60	70	80	90	105	115
Ak .115 CFM L/S	21/7	29/8	38/11	45/13	51/14	58/16	67/19	74/21
Throw L/S	4.0/2.0	5.0/2.5	6.0/3.5	7.5/4.0	8.5/4.5	9.5/5.0	11.0/6.0	12.0/6.5
12 x 4 Total CFM	40	55	70	85	100	110	125	140
Ak .140 CFM L/S	21/10	29/13	36/17	44/20	52/24	57/26	65/30	73/34
Throw L/S	3.5/2.5	5.0/3.0	6.0/4.0	7.5/5.0	8.5/5.5	9.5/6.0	10.5/7.0	12.0/8.0
10 x 6 Total CFM	55	75	95	110	130	150	165	185
Ak .185 CFM L/S	35/10	48/14	61/17	70/20	83/23	96/27	106/30	118/33
Throw L/S	4.5/2.5	6.5/3.5	8.0/4.0	9.0/5.0	11.0/5.5	12.5/6.5	14.0/7.5	15.5/8.0
8 x 8 Total CFM	60	80	100	120	140	160	180	200
Ak .200 CFM L/S	31/14	42/19	52/24	62/29	73/34	83/38	94/43	104/48
Throw L/S	4.5/3.0	6.0/4.0	7.5/5.0	8.5/6.0	10.5/7.0	11.5/8.0	13.0/9.0	14.5/10.0
12 x 6 Total CFM	70	90	115	135	160	180	205	225
A. 225 CFM L/S	36/17	47/22	60/28	70/32	83/38	94/43	107/49	117/54
Throw L/S	4.5/3.5	6.0/4.0	8.0/5.5	9.0/6.0	11.0/7.5	12.5/8.0	14.0/6.5	15.5/10.5
14 x 6 Total CFM	85	115	145	175	205	230	260	290
Ak .290 CFM L/S	51/17	69/23	87/29	105/35	123/41	138/46	156/52	174/58
Throw L/S	5.5/3.5	7.5/4.5	10.0/5.5	12.0/6.5	14.0/8.0	15.5/9.0	18.0/10.0	20.0/11.0
10 x 10 Total CFM	95	125	155	185	215	250	280	310
Ak .310 CFM L/S	61/17	80/23	99/28	118/33	138/39	160/45	179/50	198/56
Throw L/S	6.0/3.5	8.0/4.5	10.0/5.5	12.0/6.5	14.0/7.5	16.5/9.0	18.0/10.5	20.0/10.5
12 x 8 Total CFM	95	130	160	190	225	255	290	320
Ak .320 CFM L/S	49/23	68/31	83/38	99/46	117/54	133/61	151/70	166/77
Throw L/S	5.5/4.0	7.5/5.0	9.5/6.0	11.0/7.5	13.0/9.0	15.0/10.0	17.0/11.5	19.0/12.5
14 x 8 Total CFM	115	155	195	235	275	310	350	390
Ak .390 CFM L/S	69/23	93/31	117/39	141/47	165/55	186/62	210/70	234/78
Throw L/S	6.5/4.0	9.0/5.0	11.0/6.0	13.5/7.5	16.0/9.0	18.0/10.0	20.0/11.5	22.0/12.5
12 x 12 Total CFM	140	190	235	280	330	375	425	470
Ak .470 CFM L/S	73/34	99/46	122/56	146/67	172/79	195/90	221/102	244/113
Throw L/S	7.0/4.5	9.0/6.0	11.5/7.5	13.5/9.0	16.0/10.5	18.0/12.0	20.0/14.0	23.0/15.5
14 x 14 Total CFM	195	260	325	390	455	520	585	650
Ak .650 CFM L/S	117/39	156/52	195/65	234/78	273/91	312/104	351/117	390/130
Throw L/S	8.5/5.0	11.5/6.5	14.0/8.0	17.0/9.5	20.0/11.5	23.0/13.0	26.0/14.5	28.0/16.0
16 x 16 Total CFM	280	370	465	560	650	745	835	930
Ak .930 CFM L/S	164/67	192/89	242/112	291/134	338/156	387/179	434/200	484/223
Throw L/S	10.0/6.5	13.0/9.0	16.5/11.0	20.0/13.0	23.0/15.5	26.0/17.0	29.0/20.0	33.0/22.0

Terminal Velocity of 75 FPM

604/AL604/SW4 Four-Way

Face Velocity	300	400	500	600	700	800	900	1000
Pressure Loss	.006	.010	.016	.022	.031	.040	.050	.062
6 x 6 Total CFM	30	40	50	65	75	85	95	105
Ak .105 CFM L/S	4/11	6/14	8/17	10/22	12/26	14/29	15/32	17/36
Throw L/S	2.0/3.0	2.0/3.5	3.0/4.0	3.5/5.5	4.5/6.5	5.0/7.0	5.5/8.0	6.0/9.0
8 x 8 Total CFM	60	80	100	120	140	160	180	200
Ak .200 CFM L/S	16/14	21/19	26/24	31/29	37/34	42/38	47/43	52/48
Throw L/S	3.0/3.0	4.0/4.0	5.0/5.0	6.0/6.0	7.5/7.0	8.5/8.0	9.5/9.0	10.5/10.0
10 x 10 Total CFM	95	125	155	185	215	250	280	310
Ak .310 CFM L/S	31/17	40/23	50/28	59/33	69/39	80/45	90/50	99/56
Throw L/S	4.5/3.5	6.0/4.5	7.0/5.5	8.5/6.5	10.0/7.5	11.0/9.0	13.0/9.5	14.5/10.5
12 x 12 Total CFM	140	190	235	280	330	375	425	470
Ak .470 CFM L/S	37/34	50/46	61/56	73/67	86/79	98/90	111/102	122/113
Throw L/S	5.0/4.5	6.5/6.0	8.0/7.5	9.5/9.0	11.5/10.5	13.0/12.0	14.5/14.0	16.0/15.5
14 x 14 Total CFM	195	260	325	390	455	520	585	650
Ak .650 CFM L/S	59/39	78/52	98/65	117/78	137/91	156/104	176/117	195/130
Throw L/S	6.0/5.0	8.0/6.5	10.0/8.0	12.0/9.5	14.0/11.5	16.0/13.0	18.0/14.5	20.0/16.0
16 x 16 Total CFM	280	370	465	560	650	745	835	930
Ak .930 CFM L/S	73/67	96/89	121/112	146/134	169/156	194/179	217/200	242/223
Throw L/S	7.0/6.5	9.0/9.0	11.5/11.0	14.0/13.0	16.0/15.5	19.0/17.0	21.0/20.0	23.0/22.0

Terminal Velocity of 75 FPM