

Engineering Data

210 Floor Register (Page 6)

Face Velocity		300	400	500	600	700	800	900	1000
Pressure Loss		.006	.010	.016	.022	.031	.040	.050	.062
4x10 Ak .20	cfm Throw	60 8	80 11	100 13	120 16	140 19	160 22	180 24	200 26
4x12 & 6x8 Ak .25	cfm Throw	75 9	100 12	125 15	150 18	175 21	200 25	225 28	250 31
4x14 Ak .28	cfm Throw	85 6	110 10	140 15	170 19	195 22	225 25	250 28	280 32
6x10 & 8x8 Ak .32	cfm Throw	95 10	130 14	160 17	190 21	225 24	255 27	290 31	320 34
6x12 Ak .38	cfm Throw	115 12	150 15	190 19	230 23	265 26	305 30	340 34	380 38
8x10 Ak .42	cfm Throw	125 12	170 15	210 18	250 24	295 28	335 32	380 37	420 41
6x14 Ak .44	cfm Throw	130 13	175 16	220 20	265 24	310 28	350 32	395 36	440 41
6x16 Ak .49	cfm Throw	145 11	195 16	245 21	295 25	345 30	390 35	440 39	490 44
8x12 & 10x10 Ak .53	cfm Throw	160 12	210 17	265 21	320 26	370 32	425 37	475 43	530 48
9x12 & 8x14 Ak .60	cfm Throw	180 14	240 20	300 24	360 29	420 34	480 39	540 44	600 50
10x12 Ak .65	cfm Throw	195 14	260 18	325 24	390 30	455 35	520 41	585 46	650 51
8x16 & 9x14 Ak .69	cfm Throw	205 15	275 21	345 27	415 32	485 37	550 42	620 48	690 53
10x14 & 12x12 Ak .78	cfm Throw	235 14	310 21	390 28	470 34	545 40	625 46	700 51	780 56
10x16 Ak .88	cfm Throw	265 17	350 23	440 30	530 36	615 41	705 48	790 53	880 60
12x14 Ak .93	cfm Throw	280 18	370 24	465 30	560 37	650 43	745 50	835 56	930 62
12x16 & 14x14 Ak 1.07	cfm Throw	320 20	430 26	535 32	640 39	750 46	855 53	965 59	1070 64
12x18 & 14x16 Ak 1.22	cfm Throw	365 21	490 28	610 34	730 42	855 49	975 56	1100 62	1220 68
14x18 & 16x16 Ak 1.42	cfm Throw	425 22	570 30	710 37	850 45	995 52	1135 58	1280 63	1420 68
12x24 & 14x20 Ak 1.59	cfm Throw	475 23	635 31	795 39	955 46	1115 52	1270 59	1430 65	1590 71

Terminal Velocity of 50 fpm

265 Return Air Grille (Page 6)

Average Face Velocity		400	500	600	700	800	900	1000
4x12 Ak .295	cfm Pt	120 .011	150 .017	175 .024	205 .033	235 .043	265 .054	295 .065
4x14 Ak .335	cfm Pt	135 .011	170 .016	200 .023	235 .032	270 .042	300 .052	335 .064
6x10 Ak .37	cfm Pt	150 .010	185 .016	220 .022	260 .031	295 .041	335 .051	370 .063
6x12 Ak .445	cfm Pt	180 .010	225 .015	265 .021	310 .030	355 .039	400 .049	445 .060
8x10 Ak .49	cfm Pt	195 .010	245 .015	295 .021	345 .029	390 .038	440 .047	490 .059
6x14 Ak .51	cfm Pt	205 .010	255 .015	305 .020	355 .029	410 .038	460 .047	510 .058
8x12 Ak .585	cfm Pt	235 .009	295 .014	350 .020	410 .028	470 .036	525 .046	585 .057
8x14 Ak .68	cfm Pt	270 .009	340 .014	410 .019	475 .027	545 .035	610 .044	680 .055
10x12 Ak .72	cfm Pt	290 .009	360 .014	430 .019	505 .027	575 .035	650 .043	720 .054
12x12 & 6x24 Ak .85	cfm Pt	340 .009	425 .013	510 .019	595 .026	680 .033	765 .042	850 .053
6x30 Ak 1.03	cfm Pt	410 .008	515 .012	620 .018	720 .024	825 .032	925 .040	1030 .049
8x24 Ak 1.11	cfm Pt	445 .008	555 .012	665 .018	775 .024	890 .031	1000 .039	1110 .048
14x14 Ak 1.15	cfm Pt	460 .008	575 .012	690 .018	805 .024	920 .031	1035 .039	1150 .048
8x30 Ak 1.35	cfm Pt	540 .008	675 .012	810 .017	945 .023	1080 .030	1215 .037	1350 .046
14x20 Ak 1.58	cfm Pt	630 .007	790 .011	950 .016	1105 .022	1265 .029	1420 .036	1580 .045
12x24 Ak 1.64	cfm Pt	655 .007	820 .011	985 .016	1150 .022	1310 .029	1475 .036	1690 .044
10x30 Ak 1.68	cfm Pt	670 .007	840 .011	1010 .016	1175 .022	1345 .029	1510 .036	1680 .044
18x18 Ak 1.80	cfm Pt	720 .007	900 .011	1080 .015	1260 .021	1440 .028	1620 .035	1800 .043
14x24 Ak 1.87	cfm Pt	750 .007	935 .011	1120 .015	1310 .021	1495 .028	1685 .035	1870 .043
12x30 Ak 2.00	cfm Pt	800 .007	1000 .011	1200 .015	1400 .021	1600 .027	1800 .034	2000 .042
14x30 Ak 2.35	cfm Pt	940 .007	1175 .010	1410 .015	1645 .020	1880 .026	2115 .033	2350 .040
24x24 Ak 3.10	cfm Pt	1240 .006	1550 .010	1860 .014	2170 .019	2480 .024	2790 .031	3100 .038
30x30 Ak 4.70	cfm Pt	1880 .006	2350 .009	2820 .012	3290 .017	3760 .022	4230 .028	4700 .034

* Velocity measured 1" from face.

411 Floor Diffuser (Page 6)

Face Velocity		300	400	500	600	700	800	900	1000
Pressure Loss		.006	.010	.016	.022	.031	.040	.050	.062
2 1/4 x10 Ak .09	cfm Spread Throw	25 2 3	35 2.5 4	45 3 5	55 4 6.5	60 4.5 7.5	70 5 9	80 6 10	90 6.5 11
2 1/4 x12 Ak .11	cfm Spread Throw	35 2 3	45 3 4.5	55 3.5 6	65 4 7	75 5 8.5	90 6 9.5	100 6.5 11	110 7 12
2 1/4 x14 Ak .13	cfm Spread Throw	40 2.5 3.5	50 3 5	65 4 7	80 4.5 8	90 5.5 9.5	105 6.5 10.5	115 7 12	130 8 13
4x10 Ak .17	cfm Spread Throw	50 3 4	70 3.5 6	85 4.5 7.5	100 5.5 9	120 6.5 11	135 7 12	155 8 13.5	170 9 15.5
4x12 Ak .21	cfm Spread Throw	65 3 5	85 4 7	105 5 8.5	125 6 10	145 7 12	170 8 13.5	190 9 15.5	210 10 17
4x14 Ak .25	cfm Spread Throw	75 5.5 3.5	100 7.5 4.5	125 9.5 5.5	150 11 6.5	175 13 7.5	200 15 9	225 17 10	250 18.5 11
6x10 Ak .27	cfm Spread Throw	80 6 3.5	110 8 4.5	135 10 6	160 11.5 7	190 13.5 8	215 15.5 9	245 17.5 10.5	270 19.5 11.5
6x12 Ak .33	cfm Spread Throw	100 6.5 4	130 8.5 5	165 11 6.5	200 13 7.5	230 15 9	265 17 10	295 19.5 11.5	330 21.5 12.5
6x14 Ak .39	cfm Spread Throw	115 7.5 4.5	155 9.5 5.5	195 12 7	235 14 8.5	275 17 10	310 19 11	350 21.5 12.5	390 23.5 14

Terminal velocity of 50 fpm.