672/674 Return Air Grille (Page 20, 11)
673 Return Air Filter Grille (Page 20)

Face velocity *		300	400	500	600	700
6 x 4	CFM	34	45	56	68	79
Ak 0.11	Ps.	0.020	0.035	0.054	0.079	0.108
6 x 6	CFM	50	67	84	101	117
Ak 0.17	Ps.	0.019	0.035	0.054	0.079	0.107
8 x 4	CFM	45	60	75	90	105
Ak 0.15	Ps.	0.019	0.035	0.054	0.079	0.108
8 x 6	CFM	67	89	111	134	156
Ak 0.22	Ps.	0.019	0.035	0.054	0.079	0.107
8 x 8	CFM	89	118	148	178	207
Ak 0.30	Ps.	0.019	0.035	0.054	0.078	0.107
10 x 4	CFM	56	74	93	112	130
Ak 0.19	Ps.	0.019	0.035	0.054	0.079	0.107
10 x 6	CFM	83	111	139	167	194
Ak 0.28	Ps.	0.019	0.035	0.054	0.078	0.107
10 x 8	CFM	111	147	184	221	258
Ak 0.37	Ps.	0.019	0.034	0.054	0.078	0.106
10 x 10	CFM	138	184	230	276	322
Ak 0.46	Ps.	0.019	0.034	0.054	0.078	0.106
12 x 6	CFM	100	133	166	199	233
Ak 0.33	Ps.	0.019	0.034	0.054	0.078	0.106
12 x 8	CFM	132	177	221	265	309
Ak 0.44	Ps.	0.019	0.034	0.054	0.078	0.106
12 x 10	CFM	165	220	275	330	385
Ak 0.55	Ps.	0.019	0.034	0.053	0.077	0.105
12 x 12	CFM	197	263	329	395	461
Ak 0.66	Ps.	0.019	0.034	0.053	0.077	0.104
12 x 18	CFM	294	392	491	589	687
Ak 0.98	Ps.	0.019	0.034	0.053	0.075	0.102
14 x 6	CFM	116	155	193	232	271
Ak 0.39	Ps.	0.019	0.034	0.054	0.078	0.106
14 x 8	CFM	154	205	257	308	360
Ak 0.51	Ps.	0.019	0.034	0.053	0.077	0.105
14 x 10	CFM	192	256	320	384	448
Ak 0.64	Ps.	0.019	0.034	0.053	0.077	0.104
14 x 12	CFM	230	306	383	460	536
Ak 0.77	Ps.	0.019	0.034	0.053	0.076	0.103
14 x 14	CFM	267	357	446	535	624
Ak 0.89	Ps.	0.019	0.034	0.053	0.075	0.103
14 x 18	CFM	343	457	571	685	800
Ak 1.14	Ps.	0.019	0.033	0.052	0.074	0.101

Face velocity*		300	400	500	600	700
16 x 6	CFM	132	177	221	265	309
Ak 0.44	Ps.	0.019	0.034	0.054	0.078	0.106
16 x 8	CFM	176	234	293	352	410
Ak 0.59	Ps.	0.019	0.034	0.053	0.077	0.105
16 x 10	CFM	219	292	365	438	511
Ak 0.73	Ps.	0.019	0.034	0.053	0.076	0.104
16 x 12	CFM	262	349	437	524	612
Ak 0.87	Ps.	0.019	0.034	0.053	0.076	0.103
16 x 14	CFM	305	407	509	610	712
Ak 1.02	Ps.	0.019	0.034	0.052	0.075	0.102
16 x 16	CFM	348	464	580	696	812
Ak 1.16	Ps.	0.019	0.033	0.052	0.074	0.101
16 x 24	CFM	519	692	865	1038	1211
Ak 1.73	Ps.	0.018	0.033	0.051	0.071	0.097
16 x 25	CFM	540	720	900	1081	1261
Ak 1.80	Ps.	0.018	0.033	0.051	0.071	0.097
18 x 6	CFM	149	198	248	297	347
Ak 0.50	Ps.	0.019	0.034	0.054	0.077	0.105
18 x 18	CFM	439	585	732	878	1024
Ak 1.46	Ps.	0.019	0.033	0.052	0.073	0.099
18 x 24	CFM	583	777	971	1166	1360
Ak 1.94	Ps.	0.018	0.032	0.051	0.070	0.096
20 x 6	CFM	165	220	275	330	385
Ak 0.55	Ps.	0.019	0.034	0.053	0.077	0.105
20 x 10	CFM	273	364	455	546	637
Ak 0.91	Ps.	0.019	0.034	0.053	0.075	0.103
20 x 12	CFM	327	435	544	653	762
Ak 1.09	Ps.	0.019	0.033	0.052	0.074	0.101
20 x 14	CFM	380	507	634	760	887
Ak 1.27	Ps.	0.019	0.033	0.052	0.074	0.100
20 x 20	CFM	540	720	900	1081	1261
Ak 1.80	Ps.	0.018	0.033	0.051	0.071	0.097
20 x 24	CFM	647	862	1078	1293	1509
Ak 2.16	Ps.	0.018	0.032	0.050	0.069	0.094
20 x 25	CFM	673	898	1122	1346	1571
Ak 2.24	Ps.	0.018	0.032	0.050	0.069	0.094
24 x 4	CFM	132	177	221	265	309
Ak 0.44	Ps.	0.019	0.034	0.054	0.078	0.106
24 x 6	CFM	197	263	329	395	461
Ak 0.66	Ps.	0.019	0.034	0.053	0.077	0.104
24 x 8	CFM	262	349	437	524	612
Ak 0.87	Ps.	0.019	0.034	0.053	0.076	0.103
24 x 10	CFM	327	435	544	653	762
Ak 1.09	Ps.	0.019	0.033	0.052	0.074	0.101
24 x 12	CFM	391	521	651	782	912
Ak 1.30	Ps.	0.019	0.033	0.052	0.073	0.100
24 x 14	CFM	455	607	758	910	1062
Ak 1.52	Ps.	0.019	0.033	0.051	0.072	0.098
24 x 22	CFM	710	947	1184	1421	1657
Ak 2.37	Ps.	0.018	0.032	0.050	0.068	0.093
24 x 24	CFM	774	1032	1290	1548	1806
Ak 2.58	Ps.	0.018	0.032	0.049	0.067	0.091
30 x 4	CFM	165	220	275	330	385
Ak 0.55	Ps.	0.019	0.034	0.053	0.077	0.105
30 x 6	CFM	246	328	410	492	574
Ak 0.82	Ps.	0.019	0.034	0.053	0.076	0.103
30 x 8	CFM	327	435	544	653	762
Ak 1.09	Ps.	0.019	0.033	0.052	0.074	0.101
30 x 10	CFM	407	543	678	814	949
Ak 1.36	Ps.	0.019	0.033	0.052	0.073	0.100
30 x 12	CFM	487	649	812	974	1136
Ak 1.62	Ps.	0.018	0.033	0.051	0.072	0.098
30 x 14	CFM	567	756	945	1134	1323
Ak 1.89	Ps.	0.018	0.032	0.051	0.071	0.096
30 x 18	CFM	726	968	1210	1452	1694
Ak 2.42	Ps.	0.018	0.032	0.050	0.068	0.092
30 x 20	CFM	806	1074	1343	1611	1880
Ak 2.69	Ps.	0.018	0.031	0.049	0.067	0.091
30 x 24	CFM	964	1286	1607	1928	2250
Ak 3.21	Ps.	0.017	0.031	0.048	0.064	0.087
30 x 24	CFM	964	1286	1607	1928	2250
Ak 3.21	Ps.	0.017	0.031	0.048	0.064	0.087
30 x 30	CFM	1201	1602	2002	2403	2803
Ak 4.00	Ps.	0.017	0.030	0.046	0.060	0.082
36 x 6	CFM	294	392	491	589	687
Ak 0.98	Ps.	0.019	0.034	0.053	0.075	0.102
36 x 8	CFM	391	521	651	782	912
Ak 1.30	Ps.	0.019	0.033	0.052	0.073	0.100

*Tested without filters. Typical disposable 1-inch capacity is 2 cfm per square inch of gross filter area. Recommended velocity is 300-400 fpm. Velocities higher than 500 fpm will decrease filter performance. Increase flow resistance, and possibly blow off agglomerates of collected dirt. Velocity measured 1" from face.

661 & A661 2-Way Supply Register (Page 19)

Face Velocity		300	400	500	600	700	800	900	1000
Pressure Loss		**.006**	**.010**	**.016**	**.022**	**.031**	**.040**	**.050**	**.062**
6x4	cfm	25	30	40	50	55	65	70	80
Ak .080	Throw	4	4.5	6	7	8.5	10	11	12.5
8x4	cfm	35	45	55	65	75	90	100	110
Ak .110	Throw	4.5	5.5	7	8.5	10	11.5	13	14.5
10x4 & 8x5	cfm	45	60	75	85	100	115	130	145
Ak .145	Throw	5	6.5	8	9.5	11.5	13	14.5	16
12x4 & 8x6	cfm	55	70	90	110	125	145	160	180
Ak .180	Throw	5.5	7	9	10.5	12.5	14	16	18
14x4	cfm	65	85	110	130	150	170	195	215
Ak .215	Throw	6	7.5	9.5	11.5	13.5	15.5	17	19
10x6 & 12x5	cfm	75	100	125	145	170	195	220	245
Ak .245	Throw	6	8	10	12	14	16	18	20
12x6 & 14x5	cfm	90	120	150	175	205	235	265	295
Ak .295	Throw	6.5	8.5	11	13	15.5	17.5	19.5	22
10x8	cfm	105	140	175	205	240	275	310	345
Ak .345	Throw	7	9	11.5	13.5	16.5	18.5	21	23.5
14x6	cfm	110	145	180	215	250	290	325	360
Ak .360	Throw	7	9.5	12	14	16.5	19	21.5	24
16x6 & 12x8	cfm	130	170	215	255	300	340	385	425
Ak .425	Throw	7.5	10	12.5	15	18	20.5	23	25.5
14x8	cfm	155	205	260	310	360	410	465	515
Ak .515	Throw	8	10.5	14	16	19.5	22	25	28
20x6	cfm	165	220	275	330	385	440	495	550
Ak .550	Throw	8.5	11	14.5	17	20	23	25.5	29
16x8	cfm	180	240	300	360	420	480	540	600
Ak .600	Throw	8.5	11	14.5	17	20	23	25.5	29
24x6 & 18x8	cfm	205	270	340	410	475	545	610	680
Ak .680	Throw	9.5	12	15.5	18.5	22	25	28	31.5
20x8	cfm	230	305	380	455	530	610	685	760
Ak .760	Throw	10	13	16.5	19	23	26	28.5	33
30x6	cfm	265	350	440	530	615	705	790	880
Ak .880	Throw	10.5	14	17.5	20.5	24.5	28	31.5	35
24x8	cfm	295	390	490	590	685	785	880	980
Ak .980	Throw	11	14	18	21.5	25.5	29	33	37
30x8	cfm	375	500	625	750	875	1000	1125	1250
Ak 1.25	Throw	12	16	20	24	28.5	32	37	41

Terminal velocity of 75 fpm