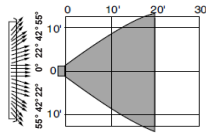


Engineering Data

291L Single Deflection Register (Page 16)
 4720OB Double Deflection Register w/
 OBD (Page 16)

Deflection G



Face Velocity	400	500	600	700	800	900	1000	1100	1200	1300	1400	1600	1800	2000
Pressure Loss	.010	.016	.022	.031	.040	.050	.062	.075	.090	.105	.122	.160	.202	.249
8 x 4 CFM	50	60	70	85	95	105	120	130	145	155	165	190	215	240
Ak .119 Throw	2.5	3.0	4.0	4.5	5.0	5.5	6.5	7.0	8.0	8.5	9.0	10.0	12.0	13.0
10 x 4 CFM	55	70	85	100	115	130	145	155	170	185	200	230	255	285
Ak .143 Throw	2.5	3.5	4.0	5.0	5.5	6.5	7.0	7.5	8.0	9.0	9.5	11.0	12.0	14.0
12 x 4 CFM	70	85	105	120	140	155	175	190	210	225	240	275	310	345
Ak .173 Throw	3.0	3.5	4.5	5.0	6.0	7.0	7.5	8.5	9.0	10.0	11.0	12.0	14.0	15.0
14 x 4 CFM	80	100	120	140	160	180	200	220	240	265	285	325	365	405
Ak .202 Throw	3.0	4.0	5.0	5.5	6.5	7.5	8.0	9.0	9.5	11.0	12.0	13.0	15.0	16.0
12 x 5 CFM	90	110	130	155	175	200	220	240	265	285	310	350	395	440
Ak .220 Throw	3.5	4.5	5.0	6.0	7.0	8.0	8.5	9.5	10.0	11.0	12.0	14.0	15.0	17.0
10 x 6 CFM	90	110	135	155	180	200	220	245	265	290	310	355	400	445
Ak .222 Throw	3.5	4.5	5.0	6.0	7.0	7.5	8.5	9.5	10.0	11.0	12.0	14.0	15.0	17.0
14 x 5 CFM	105	130	155	180	205	230	260	285	310	335	360	415	465	515
Ak .258 Throw	4.0	4.5	5.5	6.5	7.5	8.5	9.5	10.0	11.0	12.0	13.0	15.0	17.0	18.0
12 x 6 CFM	105	135	160	190	215	240	270	295	320	350	375	430	480	535
Ak .268 Throw	4.0	5.0	5.5	6.5	7.5	8.5	9.0	10.0	11.0	12.0	13.0	15.0	17.0	19.0
16 x 5 CFM	120	150	180	205	235	265	295	325	355	385	415	475	535	590
Ak .296 Throw	4.0	5.0	6.0	7.0	8.0	9.0	10.0	11.0	12.0	13.0	14.0	16.0	18.0	20.0
14 x 6 CFM	125	155	190	220	250	285	315	345	375	410	440	500	565	630
Ak .314 Throw	4.0	5.0	6.0	7.0	8.0	9.5	10.0	11.0	12.0	13.0	14.0	16.0	18.0	20.0
16 x 6 CFM	145	180	215	250	290	325	360	395	430	470	505	575	650	720
Ak .360 Throw	4.5	5.5	6.5	7.5	9.0	10.0	11.0	12.0	13.0	14.0	15.0	17.0	20.0	22.0
20 x 5 CFM	150	185	225	260	300	335	370	410	445	485	520	595	670	745
Ak .372 Throw	4.5	5.5	6.5	7.5	9.0	10.0	11.0	12.0	13.0	14.0	15.0	18.0	20.0	22.0
24 x 5 CFM	180	225	270	315	360	405	450	495	540	580	625	715	805	895
Ak .448 Throw	5.0	7.5	7.5	8.5	10.0	11.0	12.0	13.0	15.0	16.0	17.0	19.0	22.0	24.0
20 x 6 CFM	180	225	270	315	360	410	455	500	545	590	635	725	815	905
Ak .453 Throw	5.0	6.0	7.5	8.5	10.0	11.0	12.0	14.0	15.0	16.0	17.0	20.0	22.0	25.0
24 x 6 CFM	220	275	325	380	435	490	545	600	655	710	765	870	980	1090
Ak .545 Throw	5.5	7.0	8.0	9.5	11.0	12.0	13.0	15.0	16.0	18.0	19.0	21.0	24.0	27.0
20 x 8 CFM	245	305	370	430	490	555	615	675	735	800	860	980	1105	1230
Ak .614 Throw	5.5	7.0	8.5	10.0	11.0	13.0	14.0	16.0	17.0	19.0	20.0	23.0	26.0	29.0
30 x 6 CFM	275	340	410	480	545	615	685	750	820	890	955	1095	1230	1365
Ak .683 Throw	6.0	7.5	9.0	11.0	12.0	14.0	15.0	17.0	18.0	20.0	21.0	24.0	27.0	30.0
24 x 8 CFM	295	370	445	515	590	665	740	815	885	960	1035	1180	1330	1480
Ak .739 Throw	6.5	8.0	9.5	11.0	13.0	14.0	16.0	17.0	19.0	20.0	22.0	25.0	28.0	31.0
30 x 8 CFM	370	465	555	650	740	835	925	1020	1110	1205	1295	1480	1665	1850
Ak .926 Throw	7.0	9.0	10.0	12.0	14.0	16.0	17.0	19.0	21.0	23.0	24.0	28.0	31.0	35.0
24 x 10 CFM	375	465	560	650	745	840	930	1025	1120	1210	1305	1490	1675	1865
Ak .932 Throw	7.0	9.0	11.0	12.0	14.0	16.0	18.0	19.0	21.0	23.0	25.0	28.0	32.0	35.0
36 x 8 CFM	445	555	670	780	890	1005	1115	1225	1335	1450	1560	1780	2005	2230
Ak 1.114 Throw	7.5	9.5	12.0	13.0	15.0	17.0	19.0	21.0	23.0	25.0	27.0	31.0	35.0	39.0
24 x 12 CFM	450	565	675	790	900	1015	1125	1240	1350	1465	1575	1800	2025	2250
Ak 1.126 Throw	7.5	9.5	12.0	14.0	15.0	17.0	19.0	21.0	23.0	25.0	27.0	31.0	35.0	39.0
30 x 10 CFM	470	585	700	820	935	1050	1170	1285	1405	1520	1635	1870	2105	2340
Ak 1.169 Throw	8.0	10.0	12.0	14.0	16.0	18.0	20.0	22.0	24.0	26.0	27.0	31.0	35.0	39.0
36 x 10 CFM	560	705	845	985	1125	1265	1405	1545	1685	1830	1970	2250	2530	2810
Ak 1.406 Throw	8.5	11.0	13.0	15.0	17.0	19.0	22.0	24.0	26.0	28.0	30.0	35.0	39.0	43.0
30 x 12 CFM	565	705	845	990	1130	1270	1410	1555	1695	1835	1975	2260	2540	2825
Ak 1.412 Throw	8.5	11.0	13.0	15.0	17.0	19.0	22.0	24.0	26.0	28.0	30.0	35.0	39.0	43.0
36 x 12 CFM	680	850	1020	1190	1360	1530	1700	1870	2040	2210	2375	2715	3055	3395
Ak 1.698 Throw	9.5	12.0	14.0	17.0	19.0	21.0	24.0	26.0	29.0	31.0	33.0	38.0	43.0	48.0

Terminal Velocity of 75 FPM

470 Fixed Bar Return Air Grille (No Damper) (Page 16)
 490 Fixed Bar Filter Grille (Page 16)

Face Velocity	300	400	500	600	700	800	900	1000
6 x 6 CFM	45	60	75	90	105	120	135	150
Ak .150 Ps	.010	.019	.029	.046	.060	.075	.100	.130
8 x 8 CFM	84	112	140	169	197	225	253	281
Ak .280 Ps	.010	.019	.029	.046	.060	.075	.100	.130
10 x 10 CFM	135	180	225	270	315	360	405	450
Ak .450 Ps	.011	.019	.030	.042	.057	.072	.094	.119
12 x 6 CFM	96	127	159	191	223	255	287	318
Ak .320 Ps	.011	.019	.029	.045	.059	.074	.099	.128
14 x 6 CFM	112	150	187	225	262	300	337	375
Ak .370 Ps	.011	.019	.029	.044	.058	.074	.097	.124
14 x 8 CFM	152	203	254	304	355	406	456	507
Ak .510 Ps	.011	.019	.030	.041	.056	.072	.093	.116
12 x 12 CFM	198	264	330	395	461	527	593	659
Ak .660 Ps	.011	.019	.030	.039	.054	.070	.089	.109
24 x 8 CFM	267	355	444	533	622	711	800	888
Ak .890 Ps	.011	.020	.031	.040	.055	.074	.091	.111
18 x 12 CFM	301	401	502	602	703	803	903	1004
Ak 1.000 Ps	.011	.020	.031	.041	.056	.076	.092	.112
30 x 8 CFM	336	448	560	672	784	895	1007	1119
Ak 1.120 Ps	.011	.020	.031	.041	.056	.078	.093	.114
24 x 12 CFM	406	541	676	811	946	1082	1217	1352
Ak 1.350 Ps	.011	.020	.031	.043	.058	.081	.095	.116
18 x 18 CFM	458	611	764	917	1069	1222	1375	1528
Ak 1.530 Ps	.011	.020	.032	.043	.058	.083	.096	.117
30 x 12 CFM	511	682	852	1023	1193	1364	1534	1704
Ak 1.700 Ps	.011	.020	.032	.044	.059	.084	.097	.118
20 x 20 CFM	571	761	951	1141	1331	1522	1712	1902
Ak 1.900 Ps	.011	.020	.032	.044	.059	.086	.098	.119
36 x 12 CFM	618	824	1030	1236	1442	1649	1855	2061
Ak 2.060 Ps	.011	.020	.032	.045	.060	.087	.099	.120
24 x 20 CFM	690	920	1150	1380	1610	1840	2070	2300
Ak 2.300 Ps	.011	.020	.032	.045	.060	.089	.100	.120
30 x 18 CFM	781	1041	1301	1561	1822	2082	2342	2602
Ak 2.600 Ps	.011	.020	.032	.045	.060	.090	.100	.121
24 x 24 CFM	835	1114	1392	1671	1949	2228	2506	2785
Ak 2.780 Ps	.011	.020	.031	.046	.060	.090	.100	.121
36 x 18 CFM	946	1261	1576	1892	2207	2522	2838	3153
Ak 3.150 Ps	.011	.019	.031	.045	.059	.090	.0	