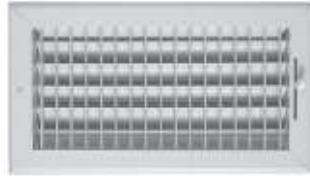


## VERTICAL SINGLE DEFLECTION AIR FOILS WITH MULTI-SHUTTER DAMPER

- Extruded aluminum frame
- Aluminum or white baked on finish
- Individually adjustable extruded aluminum air foil

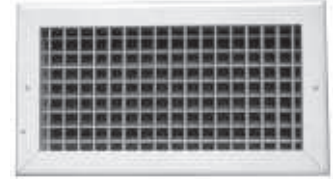


**EXTRUDED ALUMINUM**

**E 200-VM**

## DOUBLE DEFLECTION VERTICAL FRONT & HORIZONTAL REAR AIR FOIL - GRILLE ONLY

- Extruded aluminum frame
- Individually adjustable extruded aluminum air foil

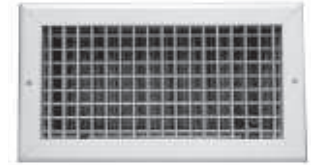


**EXTRUDED ALUMINUM**

**E 240-V**

## DOUBLE DEFLECTION VERTICAL FRONT & HORIZONTAL REAR AIR FOILS WITH KEY OPERATED OPPOSED BLADE DAMPER

- Individually adjustable extruded aluminum air foils
- Extruded aluminum frame
- Key operated opposed blade damper
- Aluminum or white baked on finish

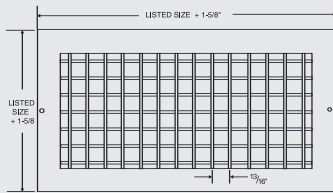


**EXTRUDED ALUMINUM**

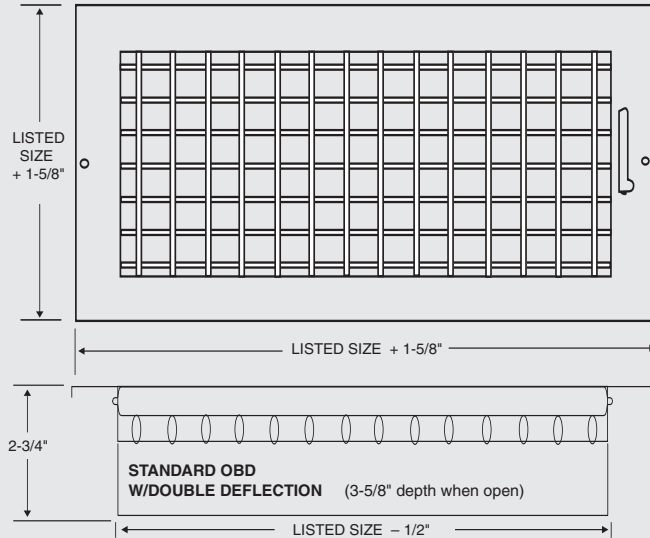
**E 240-VO**

## Dimensional Information

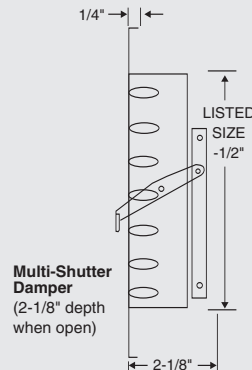
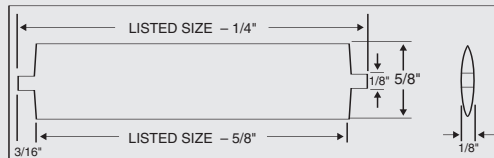
DEFLECTION PATTERN	MODELS/DAMPERS		
	GRILLE	MSD	OBD
SINGLE DEFL. VERTICAL	—	E 200-VM	—
DOUBLE DEFL. VERTICAL	E 240-V	—	E 240-VO



**DOUBLE DEFLECTION VERTICAL**



### EXTRUDED ALUMINUM AIR FOIL SPECIFICATIONS



# PERFORMANCE SPECIFICATIONS

Series 200, E 200 & E 240 Single & Double Deflection Register

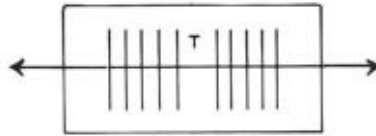


SIDEWALLS/CEILING

Sizes			8x4			8x5 10x4			8x6 10x5 12x4			14x4			10x6 12x5 16x4		
CFM	Deflection Area (Ak) (SQ FT.)		0°	22°	45°	0°	22°	45°	0°	22°	45°	0°	22°	45°	0°	22°	45°
			.14	.12	.11	.18	.16	.14	.23	.20	.18	.25	.23	.20	.28	.25	.23
50	PT		.008	.010	.013	.005	.006	.008									
	T		9	7	5	8	6	5									
	VK		357	416	454	277	312	357									
75	PT		.018	.023	.029	.011	.014	.018	.007	.009	.011	.006	.007	.009			
	T		13	11	9	12	10	8	10	8	6	10	8	6			
	VK		535	625	681	416	468	535	326	375	416	300	326	375			
100	PT		.033	.041	.052	.020	.025	.032	.012	.015	.019	.010	.012	.015	.008	.010	.012
	T		18	15	13	16	13	11	14	12	10	13	11	9	12	10	8
	VK		714	833	909	555	625	714	434	500	555	400	434	500	357	400	434
150	PT		.074	.092	.118	.045	.056	.072	.028	.034	.044	.022	.027	.035	.017	.022	.028
	T		26	22	19	23	20	17	21	18	15	20	17	14	18	15	13
	VK		1071	1250	1363	833	937	1071	652	750	833	600	652	750	535	600	652
200	PT		.130	.163	.208	.080	.100	.128	.049	.061	.078	.038	.048	.062	.031	.039	.050
	T		35	30	26	30	26	22	28	24	20	26	22	19	25	21	18
	VK		1428	1666	1818	1111	1250	1428	869	1000	1118	800	869	1000	704	800	869
250	PT		.204	.255	.327	.125	.156	.200	.076	.094	.121	.061	.075	.097	.048	.061	.079
	T		45	39	33	40	34	29	35	30	26	33	28	24	31	26	22
	VK		1785	2083	2272	1388	1562	1785	1086	1250	1388	1000	1086	1250	892	1000	1086
300	PT					.180	.225	.288	.110	.137	.175	.086	.108	.138	.070	.088	.112
	T					48	41	35	42	36	31	40	34	29	37	32	27
	VK					1666	1875	2142	1304	1500	1666	1200	1304	1500	1071	1200	1304
350	PT								.149	.186	.239	.118	.147	.188	.095	.119	.152
	T								48	41	35	46	40	34	43	37	32
	VK								1521	1750	1944	1400	1521	1750	1250	1400	1521
400	PT								.195	.243	.312	.154	.192	.246	.124	.155	.198
	T								55	47	40	52	45	39	49	42	36
	VK								1739	2000	2222	1600	1739	2000	1428	1600	1739
500	PT														.194	.242	.310
	T														61	53	46
	VK														1785	2000	2173

Sizes			8x8 14x5 18x4			12x6 20x4			10x8 14x6 16x5			18x5 24x4		
CFM	Deflection Area (Ak) (SQ FT.)		0°	22°	45°	0°	22°	45°	0°	22°	45°	0°	22°	45°
			.31	.28	.25	.35	.31	.28	.40	.36	.32	.44	.39	.35
100	PT		.006	.008	.010									
	T		12	10	8									
	VK		322	357	400									
150	PT		.014	.018	.023	.011	.014	.018	.009	.011	.014	.008	.009	.012
	T		17	14	12	17	14	12	15	13	11	14	12	10
	VK		483	535	600	428	483	535	375	416	468	340	384	428
200	PT		.025	.032	.040	.020	.025	.032	.015	.019	.025	.013	.016	.021
	T		23	20	17	22	19	16	20	17	14	20	17	14
	VK		645	714	800	571	645	714	500	555	625	454	512	571
250	PT		.039	.049	.063	.031	.039	.050	.024	.030	.038	.020	.025	.032
	T		29	25	21	28	24	20	26	22	19	25	21	18
	VK		806	892	1000	714	806	892	625	694	781	568	641	714
300	PT		.057	.071	.091	.045	.056	.072	.035	.043	.055	.029	.037	.047
	T		35	30	26	33	28	24	31	26	22	30	26	22
	VK		967	1071	1200	857	967	1071	750	833	937	681	769	857
350	PT		.077	.097	.123	.061	.077	.098	.047	.059	.075	.040	.050	.064
	T		41	35	30	39	33	28	36	31	26	35	30	26
	VK		1129	1250	1400	1000	1129	1250	875	972	1093	795	897	1000



Total pressure loss (PT) includes total static (Ps) and velocity (Pv) pressure losses for register only. Throw is the horizontal distance of the air pattern measured in feet to a terminal velocity (VT) 50 FPM. Face outlet velocity (VK) is the averaged face velocities measured with a 2220A velometer jet.

Sizes			8x8 14x5 18x4			12x6 20x4			10x8 14x6 16x5			18x5 24x4		
			0°	22°	45°	0°	22°	45°	0°	22°	45°	0°	22°	45°
CFM	Deflection Area (Ak)	(SQ FT.)	.31	.28	.25	.35	.31	.28	.40	.36	.32	.44	.39	.35
400	PT		.101	.126	.162	.080	.100	.128	.061	.077	.098	.052	.065	.083
	T		47	40	34	44	38	33	41	35	30	40	34	29
	VK		1290	1428	1600	1142	1290	1428	1000	1111	1250	909	1025	1142
500	PT		.156	.225	.252	.124	.156	.199	.096	.120	.153	.081	.103	.146
	T		58	50	43	55	47	40	52	45	39	50	43	37
	VK		1612	1785	2000	1428	1612	1785	1250	1388	1562	1136	1282	1428
600	PT				.180	.225	.288	.138	.173	.221	.117	.147	.188	
	T					66	57	49	62	53	46	59	51	44
	VK					1714	1935	2142	1500	1666	1875	1363	1538	1714
700	PT											.159	.199	.254
	T											69	60	52
	VK											1590	1794	2000
Sizes			12x8 16x6 26x4			10x10 28x4			18x6 22x5 30x4					
			0°	22°	45°	0°	22°	45°	0°	22°	45°			
CFM	Deflection Area (Ak)	(SQ FT.)	.49	.43	.39	.52	.46	.41	.54	.48	.43			
150	PT		.006	.007	.009									
	T		14	12	10									
	VK		306	348	384									
200	PT		.010	.013	.017	.009	.012	.015	.009	.011	.014			
	T		19	16	13	18	15	13	17	14	12			
	VK		408	465	512	384	434	487	370	416	465			
250	PT		.016	.021	.026	.015	.018	.023	.014	.017	.022			
	T		23	20	17	22	19	16	21	18	15			
	VK		510	581	641	480	543	609	462	520	581			
300	PT		.024	.030	.038	.021	.026	.034	.019	.024	.031			
	T		28	24	20	27	23	20	26	22	19			
	VK		612	697	769	576	652	731	555	625	697			
350	PT		.032	.040	.051	.029	.036	.046	.026	.033	.042			
	T		33	28	24	32	27	23	31	26	22			
	VK		714	813	897	673	760	853	648	729	813			
400	PT		.042	.053	.067	.083	.047	.060	.034	.043	.055			
	T		37	32	27	36	31	26	36	31	26			
	VK		816	930	1025	769	869	975	740	833	930			
500	PT		.066	.082	.105	.059	.076	.094	.054	.067	.086			
	T		47	40	34	46	40	34	45	39	33			
	VK		1020	1162	1282	931	1086	1219	925	1041	1162			
600	PT		.095	.119	.152	.084	.105	.135	.077	.097	.124			
	T		56	48	41	55	47	40	53	46	40			
	VK		1224	1395	1538	1153	1304	1463	1111	1250	1395			
700	PT		.129	.161	.206	.115	.144	.184	.105	.131	.168			
	T		66	57	49	64	55	47	62	53	46			
	VK		1428	1627	1794	1346	1521	1707	1296	1458	1627			
800	PT		.168	.210	.269	.150	.188	.240	.137	.172	.220			
	T		75	65	56	73	63	54	71	61	53			
	VK		1632	1860	2051	1538	1739	1951	1481	1666	1860			

Total pressure loss (PT) includes total static (Ps) and velocity (Pv) pressure losses for register only. Throw is the horizontal distance of the air pattern measured in feet to a terminal velocity (VT) 50 FPM. Face outlet velocity (VK) is the averaged face velocities measured with a 2220A velometer jet.

# PERFORMANCE SPECIFICATIONS

Series 200, E 200 & E 240 Single & Double Deflection Register



SIDEWALLS/CEILING

Sizes			14x8 24x5			12x10 20x6 32x4			16x8 22x6 36x4			12x12 14x14 24x6		
CFM	Deflection Area (Ak)	(SQ FT.)	0°	22°	45°	0°	22°	45°	0°	22°	45°	0°	22°	45°
			.58	.52	.46	.63	.56	.49	.68	.61	.54	.76	.67	.60
250	PT		.012	.015	.019	.010	.012	.016	.008	.010	.013	.007	.008	.011
	T		21	18	15	21	18	15	20	17	14	19	16	13
	VK		431	480	543	396	446	510	367	409	462	328	373	416
300	PT		.017	.021	.027	.014	.018	.023	.012	.015	.019	.010	.012	.016
	T		25	21	18	25	21	18	24	20	17	23	20	17
	VK		517	576	652	476	535	612	441	491	555	394	447	500
350	PT		.023	.029	.036	.020	.025	.031	.017	.021	.026	.013	.017	.021
	T		30	26	22	29	25	21	28	24	20	26	22	19
	VK		603	673	760	555	625	714	514	573	648	460	522	583
400	PT		.030	.037	.047	.026	.032	.041	.022	.027	.034	.017	.022	.028
	T		34	29	25	33	28	24	32	27	23	30	26	22
	VK		689	769	869	634	714	816	588	655	740	526	597	666
500	PT		.047	.058	.074	.040	.050	.064	.034	.042	.054	.027	.034	.044
	T		43	37	32	42	36	31	40	34	29	38	33	28
	VK		862	961	1086	793	892	1020	735	819	925	657	746	833
600	PT		.067	.084	.107	.057	.072	.092	.048	.061	.077	.039	.049	.063
	T		51	44	38	50	43	37	47	40	34	45	39	33
	VK		1034	1153	1304	952	1071	1224	882	983	1111	789	895	1000
700	PT		.091	.114	.145	.078	.097	.125	.066	.083	.106	.053	.067	.086
	T		60	52	45	58	50	43	55	47	40	53	46	40
	VK		1206	1346	1521	1111	1250	1428	1029	1147	1296	921	1044	1166
800	PT		.118	.148	.189	.102	.127	.163	.086	.107	.137	.070	.087	.112
	T		68	59	51	66	57	49	63	54	46	60	52	45
	VK		1379	1538	1739	1269	1428	1632	1176	1311	1481	1052	1194	1333
900	PT		.151	.188	.241	.129	.161	.206	.109	.136	.174	.088	.110	.141
	T		77	66	57	75	65	56	71	61	53	68	59	51
	VK		1551	1730	1956	1428	1607	1836	1323	1475	1666	1184	1343	1500
1000	PT					.159	.199	.255	.135	.168	.215	.109	.136	.175
	T					83	72	62	79	68	59	75	65	56
	VK					1587	1785	2040	1470	1639	1851	1315	1492	1666

Sizes			26x6 32x5			16x10 28x6 28x8			14x12 22x8 30x6			18x8 24x8 32x6		
CFM	Deflection Area (Ak)	(SQ FT.)	0°	22°	45°	0°	22°	45°	0°	22°	45°	0°	22°	45°
			.79	.70	.63	.86	.76	.68	.90	.81	.72	1.00	.89	.79
300	PT		.009	.011	.014	.008	.010	.012						
	T		32	19	16	21	18	15						
	VK		379	428	476	348	394	441						
350	PT		.012	.015	.019	.011	.013	.017	.009	.012	.015	.008	.010	.013
	T		26	22	19	25	21	18	24	20	17	23	20	17
	VK		443	500	555	406	460	514	388	432	486	350	393	443
400	PT		.015	.019	.024	.014	.017	.022	.012	.015	.019	.010	.013	.016
	T		29	26	22	28	24	20	27	23	20	26	22	19
	VK		506	571	634	465	526	588	444	493	555	400	449	506
500	PT		.022	.029	.036	.021	.027	.034	.019	.024	.030	.016	.020	.025
	T		36	32	28	35	30	26	34	29	25	33	28	24
	VK		632	714	793	581	657	735	555	617	694	500	561	632
600	PT		.032	.039	.050	.031	.038	.049	.028	.034	.044	.023	.029	.036
	T		43	38	33	42	36	31	41	35	30	39	33	28
	VK		759	857	952	697	789	882	666	740	833	600	674	759
700	PT		.043	.053	.069	.042	.052	.067	.037	.047	.060	.031	.039	.050
	T		51	45	38	50	43	37	48	41	35	46	40	34
	VK		886	1000	1111	813	921	1029	777	864	972	700	786	886

Total pressure loss (PT) includes total static (Ps) and velocity (Pv) pressure losses for register only. Throw is the horizontal distance of the air pattern measured in feet to a terminal velocity (VT) 50 FPM. Face outlet velocity (VK) is the averaged face velocities measured with a 2220A velometer jet.

Sizes			26x6 32x5			16x10 28x6 28x8			14x12 22x8 30x6			18x8 24x8 32x6		
CFM	Deflection Area (Ak)	(SQ FT.)	0°	22°	45°	0°	22°	45°	0°	22°	45°	0°	22°	45°
			.79	.70	.63	.86	.76	.68	.90	.81	.72	1.00	.89	.79
800	PT		.063	.079	.101	.055	.068	.087	.049	.061	.078	.041	.051	.065
	T		58	50	43	57	49	42	55	47	40	52	45	39
	VK		1012	1142	1269	930	1052	1176	888	987	1111	800	898	1012
900	PT		.080	.100	.128	.069	.087	.111	.062	.077	.099	.051	.064	.082
	T		66	57	49	64	55	47	61	53	46	59	51	44
	VK		1139	1285	1428	1046	1184	1323	1000	1111	1250	900	1011	1139
1000	PT		.099	.124	.159	.086	.107	.137	.076	.095	.122	.064	.080	.102
	T		73	63	54	71	61	53	68	59	51	66	57	49
	VK		1265	1428	1587	1162	1315	1470	1111	1234	1388	1000	1123	1265
1200	PT		.143	.179	.228	.123	.154	.197	.110	.137	.176	.091	.114	.146
	T		88	76	66	85	73	63	82	71	61	79	68	59
	VK		1518	1714	1904	1395	1578	1764	1333	1481	1666	1200	1348	1518
Sizes			14x14 16x12 20x10			18x12 22x10 36x6			16x14 20x12 30x8			16x16 16x14 32x8		
CFM	Deflection Area (Ak)	(SQ FT.)	0°	22°	45°	0°	22°	45°	0°	22°	45°	0°	22°	45°
			1.08	.96	.85	1.18	1.05	.93	1.29	1.14	1.01	1.39	1.24	1.10
400	PT		.009	.011	.014	.007	.009	.011						
	T		25	21	18	24	20	17						
	VK		370	416	468	338	380	429						
500	PT		.013	.016	.021	.011	.014	.018	.009	.012	.015	.008	.010	.013
	T		31	26	22	30	26	22	29	25	21	28	24	20
	VK		460	517	588	423	472	537	387	438	492	359	403	454
600	PT		.019	.024	.030	.016	.020	.026	.014	.017	.022	.012	.014	.018
	T		38	33	28	36	31	26	35	30	26	33	28	24
	VK		555	625	705	508	571	645	465	523	594	430	483	543
700	PT		.026	.032	.042	.022	.027	.035	.018	.023	.030	.016	.019	.025
	T		44	38	33	42	36	31	40	34	29	38	33	28
	VK		645	725	815	590	663	745	542	613	689	503	562	632
800	PT		.034	.042	.054	.029	.036	.046	.024	.030	.039	.021	.025	.033
	T		50	43	37	48	41	35	46	40	34	44	38	33
	VK		735	826	941	675	759	853	620	697	792	575	645	726
900	PT		.043	.054	.069	.036	.045	.057	.031	.038	.049	.026	.032	.042
	T		56	48	41	54	46	40	52	45	39	50	43	37
	VK		830	933	1049	760	855	961	697	787	885	645	725	815
1000	PT		.053	.066	.085	.044	.055	.071	.038	.047	.060	.032	.040	.051
	T		63	54	46	60	52	45	58	50	43	55	47	40
	VK		920	1035	1164	845	950	1068	775	871	990	719	806	909
1200	PT		.077	.095	.122	.064	.080	.103	.054	.068	.087	.046	.058	.074
	T		75	65	56	72	62	53	69	60	52	67	58	50
	VK		1105	1243	1398	1010	1136	1278	930	1046	1188	860	967	1087
1400	PT		.104	.130	.166	.087	.109	.139	.074	.092	.118	.063	.079	.101
	T		88	76	66	84	73	63	81	70	60	78	67	58
	VK		1290	1451	1632	1180	1327	1492	1085	1226	1379	1007	1125	1265
1600	PT		.132	.165	.216	.114	.142	.182	.096	.120	.154	.082	.102	.131
	T		100	87	75	96	83	72	92	80	69	89	77	66
	VK		1475	1659	1866	1350	1518	1706	1240	1395	1569	1145	1288	1449

Total pressure loss (PT) includes total static (Ps) and velocity (Pv) pressure losses for register only. Throw is the horizontal distance of the air pattern measured in feet to a terminal velocity (VT) 50 FPM. Face outlet velocity (VK) is the averaged face velocities measured with a 2220A velometer jet.

# PERFORMANCE SPECIFICATIONS

Series 200, E 200 & E 240 Single & Double Deflection Register



SIDEWALLS/CEILING

Sizes			22x12 38x4			20x14 28x10 36x8			18x16 24x12 30x10			22x14 26x12 32x10			18x18 20x16		
			0°	22°	45°	0°	22°	45°	0°	22°	45°	0°	22°	45°	0°	22°	45°
CFM	Deflection Area (Ak)	(SQ FT.)	1.45	1.29	1.15	1.53	1.36	1.21	1.60	1.42	1.26	1.73	1.54	1.37	1.79	1.59	1.41
600	PT		.011	.013	.016	.010	.012	.015	.009	.011	.014	.008	.006	.012			
	T		32	27	23	31	26	22	31	26	22	30	26	22			
	VK		414	465	522	390	438	492	375	421	473	345	388	436			
700	PT		.014	.017	.023	.013	.016	.021	.012	.015	.019	.010	.013	.016			
	T		38	33	28	37	32	27	36	31	26	35	30	26			
	VK		483	543	607	457	514	578	435	492	555	404	454	510			
800	PT		.019	.023	.030	.017	.021	.027	.016	.019	.025	.013	.016	.021	.012	.015	.020
	T		43	37	32	42	36	31	41	35	30	40	34	29	39	33	28
	VK		550	618	695	520	585	658	500	562	632	460	517	581	445	503	567
900	PT		.024	.030	.038	.022	.027	.034	.020	.024	.031	.017	.021	.027	.016	.020	.025
	T		49	42	36	48	41	35	46	40	34	45	39	33	44	38	33
	VK		620	697	782	588	661	743	560	630	714	520	584	656	502	566	638
1000	PT		.029	.037	.047	.027	.033	.043	.024	.030	.039	.021	.026	.033	.019	.024	.031
	T		54	46	40	53	46	40	52	45	39	50	43	37	49	42	36
	VK		685	770	866	650	731	822	625	703	790	575	646	726	558	628	708
1200	PT		.043	.053	.068	.038	.048	.061	.035	.044	.056	.030	.037	.048	.028	.035	.045
	T		65	56	48	63	54	46	62	53	46	60	52	45	59	51	44
	VK		825	928	1043	784	882	991	750	843	948	690	776	873	670	753	851
1400	PT		.058	.072	.092	.052	.065	.083	.048	.059	.076	.041	.051	.065	.038	.048	.061
	T		76	66	57	74	64	55	72	62	53	70	60	52	68	59	51
	VK		960	1080	1215	915	1029	1157	875	984	1107	809	909	1021	780	877	992
1600	PT		.076	.095	.121	.068	.085	.109	.062	.077	.099	.053	.066	.085	.050	.062	.080
	T		87	75	65	85	73	63	82	71	61	79	68	59	78	67	58
	VK		1100	1237	1391	1045	1175	1321	995	1119	1269	920	1035	1164	893	1006	1131
2000	PT					.106	.133	.170	.097	.121	.155	.083	.104	.133	.078	.097	.125
	T					106	92	80	103	89	77	99	86	74	98	85	73
	VK					1300	1462	1644	1245	1400	1575	1150	1293	1454	1117	1257	1417
2400	PT								.140	.175	.223	.120	.149	.191	.112	.140	.180
	T								123	107	93	119	103	89	117	101	87
	VK								1495	1681	1904	1380	1552	1746	1340	1507	1695

Sizes			24x14 28x12 34x10			20x18 30x12 36x10			24x16 28x14 32x12		
			0°	22°	45°	0°	22°	45°	0°	22°	45°
CFM	Deflection Area (Ak)	(SQ FT.)	1.87	1.66	1.48	2.01	1.79	1.59	2.17	1.93	1.72
800	PT		.011	.014	.018	.010	.012	.016	.009	.011	.014
	T		38	33	28	37	32	27	36	31	26
	VK		427	481	540	398	446	503	368	414	465
900	PT		.014	.018	.023	.013	.016	.020	.011	.013	.017
	T		43	37	32	41	35	30	40	34	29
	VK		480	540	607	447	502	566	414	466	523
1000	PT		.018	.022	.028	.015	.019	.025	.013	.016	.021
	T		48	41	35	46	40	34	44	38	33
	VK		534	601	675	497	556	628	460	517	581
1200	PT		.026	.032	.041	.022	.028	.035	.019	.024	.030
	T		57	49	42	55	47	40	53	46	40
	VK		640	720	810	597	669	752	552	621	695
1400	PT		.035	.044	.056	.030	.038	.048	.026	.032	.042
	T		67	58	50	64	55	47	62	53	46
	VK		748	843	945	695	781	878	645	725	813
1600	PT		.046	.057	.073	.039	.049	.063	.034	.042	.054
	T		76	66	57	73	63	54	71	61	53
	VK		855	961	1081	795	893	1005	735	826	929

Total pressure loss (PT) includes total static (Ps) and velocity (Pv) pressure losses for register only. Throw is the horizontal distance of the air pattern measured in feet to a terminal velocity (VT) 50 FPM. Face outlet velocity (VK) is the averaged face velocities measured with a 2220A velometer jet.

Sizes			24x14 8x4			20x18 8x5 10x4			24x16 28x14 32x12					
CFM	Deflection Area (Ak)	(SQ FT.)	0°	22°	45°	0°	22°	45°	0°	22°	45°			
2000	PT		.071	.089	.114	.062	.077	.098	.053	.066	.085			
	T		95	82	71	92	80	69	89	77	66			
	VK		1069	1203	1351	995	1113	1252	920	1035	1162			
2400	PT		.103	.128	.164	.089	.111	.142	.076	.095	.122			
	T		114	99	86	110	95	82	106	92	80			
	VK		1280	1440	1620	1190	1338	1502	1105	1243	1395			
2800	PT		.140	.174	.223	.121	.151	.193	.106	.132	.169			
	T		133	115	100	129	112	97	124	107	93			
	VK		1495	1681	1891	1390	1563	1758	1290	1451	1627			
Sizes			20x20 26x16 30x14			24x18 32x14 36x12			24x20 30x16 34x14					
CFM	Deflection Area (Ak)	(SQ FT.)	0°	22°	45°	0°	22°	45°	0°	22°	45°	0°	22°	45°
			2.35	2.09	1.86	2.50	2.22	1.97	2.72	2.42	2.15	2.85	2.54	2.26
1000	PT		.011	.014	.018	.010	.012	.016	.008	.010	.012	.008	.010	.012
	T		43	37	32	41	35	30	40	34	29	39	33	28
	VK		425	478	537	400	450	506	368	413	465	350	393	442
1200	PT		.016	.020	.026	.014	.018	.023	.012	.015	.019	.011	.014	.018
	T		51	44	38	50	43	37	47	40	34	46	40	34
	VK		510	573	644	480	540	607	440	495	556	420	472	531
1400	PT		.022	.028	.035	.020	.024	.031	.016	.021	.026	.015	.019	.024
	T		60	52	45	58	50	43	55	47	40	54	46	40
	VK		595	669	752	560	630	708	515	579	651	490	551	619
1600	PT		.029	.036	.046	.026	.032	.041	.021	.027	.034	.020	.025	.031
	T		68	59	51	66	57	49	63	54	46	62	53	46
	VK		680	765	860	640	720	810	588	661	744	560	630	708
2000	PT		.045	.056	.072	.040	.050	.064	.034	.042	.054	.031	.038	.049
	T		85	73	63	83	72	62	79	68	59	77	66	57
	VK		850	956	1075	800	900	1012	735	826	929	700	787	885
2400	PT		.065	.082	.104	.058	.072	.092	.048	.060	.077	.044	.055	.071
	T		102	88	76	99	86	74	95	82	71	93	80	69
	VK		1020	1147	1290	960	1080	1215	880	990	1113	840	945	1063
2800	PT		.089	.111	.142	.078	.098	.125	.066	.082	.105	.060	.075	.096
	T 1		19	103	89	116	100	87	111	96	83	108	93	80
	VK		1190	1338	1505	1120	1260	1417	1029	1153	1297	980	1102	1239
3200	PT		.115	.144	.185	.102	.128	.164	.086	.107	.137	.079	.098	.125
	T		136	118	102	132	114	99	126	109	94	123	107	93
	VK		1360	1530	1721	1280	1440	1620	1175	1321	1486	1120	1260	1417
Sizes			26x20 26x20			28x20 30x18 34x16			24x24 26x22 36x16			28x22 30x20 34x18		
CFM	Deflection Area (Ak)	(SQ FT.)	0°	22°	45°	0°	22°	45°	0°	22°	45°	0°	22°	45°
			2.97	2.64	2.35	3.11	2.76	2.46	3.29	2.93	2.61	3.52	3.13	2.79
1200	PT		.010	.013	.016	.009	.012	.015	.008	.010	.013	.007	.009	.012
	T		46	40	34	45	39	33	43	37	32	42	36	31
	VK		404	454	510	385	434	487	365	409	459	340	383	429
1400	PT		.014	.017	.022	.013	.016	.020	.011	.014	.018	.010	.012	.016
	T		53	6	40	52	45	39	50	43	37	49	42	36
	VK		470	530	594	450	507	569	425	477	537	397	447	502
1600	PT		.018	.023	.029	.017	.021	.027	.015	.018	.023	.013	.016	.021
	T		61	53	46	59	51	44	57	49	42	56	48	41
	VK		538	606	681	515	579	651	485	545	613	455	511	573

Total pressure loss (PT) includes total static (Ps) and velocity (Pv) pressure losses for register only. Throw is the horizontal distance of the air pattern measured in feet to a terminal velocity (VT) 50 FPM. Face outlet velocity (VK) is the averaged face velocities measured with a 2220A velometer jet.



# PERFORMANCE SPECIFICATIONS

Series 200, E 200 & E 240 Single & Double Deflection Register



SIDEWALLS/CEILING

Sizes			24x22 26x20			28x20 30x18 34x16			24x24 26x22 36x36			28x22 30x20 34x18			
CFM	Deflection Area (Ak)	(SQ FT.)	0°	22°	45°	0°	22°	45°	0°	22°	45°	0°	22°	45°	
			2.97	2.64	2.35	3.11	2.76	2.46	3.29	2.93	2.61	3.52	3.13	2.79	
2000	PT		.028	.035	.045	.026	.032	.041	.023	.029	.037	.020	.026	.032	
	T		76	66	57	74	64	55	72	62	53	70	60	52	
	VK		673	757	851	643	725	813	608	683	766	568	638	717	
2400	PT		.041	.051	.065	.037	.047	.060	.033	.041	.053	.029	.036	.047	
	T		91	79	68	89	77	66	86	74	64	84	73	63	
	VK		808	909	1021	771	871	976	729	819	919	681	765	860	
2800	PT		.055	.069	.089	.051	.064	.081	.045	.056	.072	.039	.049	.063	
	T		106	92	80	104	90	78	100	87	75	98	85	73	
	VK		940	1057	1189	900	1012	1138	850	956	1072	795	894	1005	
3200	PT		.072	.091	.116	.067	.083	.106	.059	.073	.094	.052	.065	.083	
	T		121	105	91	119	103	89	115	100	87	111	96	83	
	VK		1075	1209	1360	1030	1158	1302	970	1091	1227	909	1023	1147	
3600	PT		.092	.115	.147	.084	.105	.134	.074	.093	.119	.065	.081	.104	
	T		136	118	102	134	116	100	129	112	97	125	108	93	
	VK		1210	1361	1531	1157	1305	1463	1094	1226	1379	1022	1150	1290	
Sizes			26x24 32x20 36x18			28x24 30x22 34x20			30x24 34x22 36x20			30x25 34x24 36x22			
CFM	Deflection Area (Ak)	(SQ FT.)	0°	22°	45°	0°	22°	45°	0°	22°	45°	0°	22°	45°	
			3.73	3.32	2.95	3.88	3.45	3.07	4.21	3.74	3.33	4.60	4.09	3.64	
1200	PT		.007	.008	.010	.006	.007	.009							
	T		41	35	30	40	34	29							
	VK		322	361	407	309	348	391							
1400	PT		.009	.011	.014	.008	.010	.013	.007	.009	.011	.006	.007	.009	
	T		47	40	34	46	40	34	44	38	33	43	37	32	
	VK		375	421	474	361	405	455	332	374	420	304	342	384	
1600	PT		.012	.014	.018	.011	.013	.017	.009	.011	.014	.008	.009	.012	
	T		54	46	40	53	46	40	51	44	38	49	42	36	
	VK		429	482	543	412	464	521	380	427	480	348	391	439	
2000	PT		.018	.022	.029	.016	.021	.027	.014	.018	.022	.012	.015	.019	
	T		68	59	51	66	47	49	64	55	47	61	53	46	
	VK		535	601	678	515	579	651	475	534	600	434	488	549	
2400	PT		.026	.032	.041	.024	.030	.038	.020	.025	.032	.017	.021	.027	
	T		81	70	60	79	68	59	76	66	57	73	63	54	
	VK		643	723	813	618	695	782	570	641	721	521	586	658	
2800	PT		.035	.044	.056	.032	.040	.052	.028	.035	.044	.023	.029	.037	
	T		95	82	71	93	80	69	89	77	66	85	73	63	
	VK		750	843	948	720	810	911	665	748	841	608	684	769	
3200	PT		.046	.057	.074	.042	.053	.068	.036	.045	.058	.030	.038	.048	
	T		108	93	80	106	92	80	102	88	76	97	84	73	
	VK		858	964	1085	825	927	1044	760	855	961	695	781	878	
3600	PT		.058	.073	.093	.054	.067	.085	.046	.057	.073	.038	.048	.061	
	T		122	106	92	119	103	89	115	100	87	110	95	82	
	VK		965	1084	1220	927	1043	1170	855	962	1081	782	880	989	

Total pressure loss (PT) includes total static (Ps) and velocity (Pv) pressure losses for register only. Throw is the horizontal distance of the air pattern measured in feet to a terminal velocity (VT) 50 FPM. Face outlet velocity (VK) is the averaged face velocities measured with a 2220A velometer jet.



Sizes			30x28			30x30			32x30			32x32			34x32		
			36x26 36x24			32x28 34x26			34x28 36x26			34x30 36x28			34x30		
CFM	Deflection Area (Ak) (SQ FT.)		0°	22°	45°	0°	22°	45°	0°	22°	45°	0°	22°	45°	0°	22°	45°
			4.89	4.35	3.91	5.23	4.66	4.14	5.58	4.96	4.41	5.98	5.32	4.73	6.34	5.64	5.01
1600	PT		.007	.009	.011	.006	.007	.009									
	T		47	40	34	46	40	34									
	VK		327	368	409	306	343	386									
2000	PT		.011	.013	.017	.009	.011	.015	.008	.010	.013	.007	.009	.011	.006	.008	.010
	T		59	51	44	57	49	42	55	47	40	53	46	40	52	45	39
	VK		409	460	512	382	429	483	358	403	453	334	376	423	315	354	399
2400	PT		.015	.019	.024	.013	.016	.021	.012	.014	.018	.010	.013	.016	.009	.011	.014
	T		71	61	53	69	60	52	67	58	50	64	55	47	62	53	46
	VK		490	552	614	459	515	580	430	484	544	401	451	507	378	425	479
2800	PT		.021	.025	.033	.018	.022	.029	.016	.020	.025	.014	.017	.022	.012	.015	.019
	T		83	72	62	80	69	60	78	67	58	75	65	56	73	63	54
	VK		573	644	716	535	601	676	502	564	635	468	526	592	442	496	559
3200	PT		.027	.033	.043	.024	.029	.038	.021	.026	.033	.018	.022	.029	.016	.020	.025
	T		95	82	71	92	80	69	89	77	66	86	74	64	83	72	62
	VK		654	736	818	612	687	773	573	645	726	535	601	676	505	567	639
3600	PT		.034	.042	.054	.030	.037	.047	.026	.032	.042	.023	.028	.036	.020	.025	.033
	T		106	92	80	103	89	77	100	87	75	96	83	72	94	81	70
	VK		736	826	921	688	773	870	645	725	816	602	677	761	568	638	718

Sizes			34x34			36x34			36x36		
			36x32								
CFM	Deflection Area (Ak) (SQ FT.)		0°	22°	45°	0°	22°	45°	0°	22°	45°
			6.79	6.04	5.37	7.20	6.41	5.71	7.63	6.80	6.05
2400	PT		.008	.010	.012	.007	.009	.011	.006	.008	.009
	T		60	52	45	58	50	43	57	49	42
	VK		353	397	447	333	374	421	315	353	397
2800	PT		.011	.013	.017	.009	.012	.015	.008	.010	.013
	T		70	60	52	68	59	51	66	57	49
	VK		412	463	521	389	437	491	367	412	463
3200	PT		.014	.017	.022	.012	.015	.020	.011	.014	.018
	T		80	69	60	78	67	58	76	66	57
	VK		471	530	596	445	500	561	419	471	529
3600	PT		.018	.022	.028	.016	.019	.025	.014	.017	.022
	T		91	79	68	88	76	66	85	73	63
	VK		530	596	670	500	562	632	472	529	595

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