

# ENVISIVENT AIR FLOW DATA



## Supply Vents

Product Identifier	Opening Width [in]	Opening Height [in]	Core Area [ft <sup>2</sup> ]	Core Velocity [FPM]	300	400	500	600	700	800	1000	1200	1400
				Core Velocity Pressure [“wc]	0.006	0.010	0.016	0.022	0.030	0.040	0.062	0.090	0.122
REM Air Supply 10 x 4	9	3	0.1875	Flow [CFM]	39	53	66	79	92	105	132	158	184
				Static Pressure [“wc]	0.018	0.031	0.049	0.070	0.095	0.125	0.195	0.280	0.382
				Throw [ft] (150 100 50)	3   5   10	5   7   14	6   9   17	7   10   21	8   12   24	9   14   28	17   35	14   21   42	16   24   49
REM Air Supply 12 x 4	11	3	0.2292	Flow [CFM]	45	60	75	90	105	120	150	180	210
				Static Pressure [“wc]	0.014	0.024	0.038	0.054	0.074	0.096	0.150	0.217	0.295
				Throw [ft] (150 100 50)	3   5   11	5   7   15	6   9   19	7   11   23	8   13   27	10   15   32	19   40	15   23   49	18   27   57
REM Air Supply 10 x 6	9	5	0.3125	Flow [CFM]	63	85	106	127	148	169	212	254	296
				Static Pressure [“wc]	0.016	0.029	0.045	0.065	0.088	0.115	0.180	0.259	0.352
				Throw [ft] (150 100 50)	3   4   8	3   5   10	4   6   13	5   8   15	6   9   18	7   10   20	13   25	10   15   30	12   18   35
REM Air Supply Round 6	6 Dia	6 Dia	0.1963	Flow [CFM]	39	52	65	78	91	104	131	157	183
				Static Pressure [“wc]	0.011	0.020	0.031	0.045	0.061	0.079	0.124	0.179	0.243
				Throw [ft] (150 100 50)	4   6   13	5   8   18	7   10   23	8   13   29	10   15   34	11   18   40	23   51	18   29   63	21   34   75

## Cold Air Returns

Product Identifier	Opening Width [in]	Opening Height [in]	Core Area [ft <sup>2</sup> ]	Core Velocity [FPM]	300	400	500	600	700	800	1000	1200	1400
				Core Velocity Pressure [“wc]	0.006	0.010	0.016	0.022	0.030	0.040	0.062	0.090	0.122
PER Air Return 14 x 8	12	7.5	0.625	Flow [CFM]	138	185	231	277	323	369	461	554	646
				Static Pressure [“wc]	0.025	0.044	0.069	0.099	0.135	0.176	0.275	0.396	0.539
PER Air Return 20 x 6	20.5	6	0.854	Flow [CFM]	174	232	290	348	406	464	581	697	813
				Static Pressure [“wc]	0.025	0.044	0.068	0.098	0.134	0.175	0.273	0.393	0.535
PER Air Return 30 x 8	28	6	1.167	Flow [CFM]	225	300	376	451	526	601	751	901	1052
				Static Pressure [“wc]	0.028	0.050	0.078	0.112	0.153	0.199	0.311	0.448	0.610
REM Air Return 14 x 8	12	8.75	0.729	Flow [CFM]	153	204	255	306	357	408	510	612	714
				Static Pressure [“wc]	0.027	0.048	0.076	0.109	0.148	0.194	0.303	0.436	0.594
REM Air Return 24 x 8	24	8	1.333	Flow [CFM]	267	356	445	534	623	712	890	1068	1246
				Static Pressure [“wc]	0.027	0.048	0.075	0.108	0.147	0.192	0.300	0.432	0.588
REM Air Return 30 x 8	28	8	1.556	Flow [CFM]	283	377	471	565	659	754	942	1130	1319
				Static Pressure [“wc]	0.024	0.042	0.065	0.094	0.128	0.167	0.261	0.376	0.512
REM Air Return 8 x 8	5.613	5.613	0.219	Flow [CFM]	48	64	80	96	112	128	160	192	224
				Static Pressure [“wc]	0.027	0.048	0.075	0.107	0.146	0.191	0.298	0.430	0.585
REM Air Return 10 x 10	7.645	7.645	0.406	Flow [CFM]	86	115	144	173	201	230	288	345	403
				Static Pressure [“wc]	0.023	0.040	0.063	0.090	0.123	0.160	0.250	0.361	0.491
REM Air Return 12 x 12	9.75	9.75	0.66	Flow [CFM]	140	187	234	281	328	374	468	561	655
				Static Pressure [“wc]	0.025	0.044	0.069	0.100	0.136	0.178	0.278	0.400	0.544

### Notes:

1. The test procedures are based on ASHRAE 70.
2. Core Velocity – The average airstream velocity at the face of the grille, measured in feet per minute.
3. Core Velocity Pressure – The dynamic pressure of the airstream at the grille face. This pressure is relative to the core velocity and reported in inches of water (“wc).
4. Flow Rate – The volumetric rate of airflow through the grille, measured in cubic feet per minute (CFM)
5. Static Pressure – The air pressure difference across the grille at a given flow rate or velocity, measured in inches of water (“wc).
6. Throw – The distance away from a supply grille (i.e. perpendicular to the grille face) where the airstream velocity has slowed to a particular envelope velocity.
7. PER = PERMANENT/REM = REMOVABLE.

tested by: Airflow Sciences Corporation