

Genesis Air™ 2008 PCP Compound



The Compound Populated Catalyst Panel (PCP Compound) is a combination of PCP Standard and Drop-In technologies. This type of panel may be used in all air handlers with sideload, frontload access or rooftop units (RTU's) or in the ductwork. The PCP Compound is a "scalable" technology; it may be engineered for any size air stream using combinations of standard sizes, or by designing custom units for the non-standard pathways.

GENESIS AIR Photocatalysis GAP™

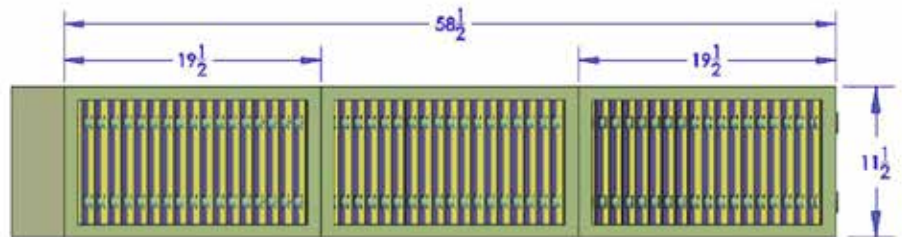
Providing Environmentally Sound Engineered Solutions for

Indoor Air Quality

Special Features:

- Non -ozone producing lamps
- Multi panel configurations
- Voltage: 115 60 hertz
- Amps: 1 per panel Average
- Consult PCP Compound Calculator for estimation of panels

Genesis Air's GAP™ technology (*patent pending*) often eliminates the need for costly HEPA and carbon filtration. Genesis Air units do not produce ozone.



GAP™

Capture

Step 1: Merv Filtration...

Reduces even particles you can't see. High efficiency, high capacity, low resistance particle filter captures most pollen, mold, mildew, ragweed, dust mites, house dust, bacteria, pet dander and many other submicroscopic poisons, allergens and irritants.

Visit our web site:

www.genesisair.com

Clean

Step 2: UVGI Lamps...

GAP™ uses ultraviolet light to energize the photocatalyst and cleans surfaces.

Genesis Air, Inc.
5202 CR 7350 Suite D
Lubbock TX 79424
Phone: 806-745-7000
e-mail: info@genesisair.com

Convert

Step 3: Photocatalysis...

Using Titanium Dioxide energized by UV light Genesis Air, GAP™ produces hydroxyl radicals. Hydroxyl radicals are a natural cleansing agent found in the troposphere. Hydroxyl radicals reduce and oxidize biologics in the air stream such as mold, bacteria and viruses, thus rendering them nonviable. And GAP™ safely reduces concentrations of VOCs.

PCP Compounds

Genesis Air 11.11.11

DIMENSIONAL DATA

A PCP Compound is comprised of PCP Standards connected together with a ballast tray. For example, the drawing below shows three 12"x 20"x 6" PCP Standards clipped together and attached to the spacer/ballast tray. The designation for this style unit requires two numbers. The first is the height, either 12", 16", 20" or 24". The second number is the nominal length of all PCP Standards built into the unit.

A possible letter E located after the length number will designate an external ballast tray is needed. The unit below would be a PCP Compound 1260. The lamps (this example uses 59" lamps) are then inserted thru the holes and attached to the ballast tray by Greensleeves. These are collars permanently mounted to the lamps.

All PCP Compound units are 6" deep nominal; actual dimension is 5 13/16". The catalyst is pleated at one pleat per inch. The ballast tray is incorporated into the unit to house the ballasts internally and to protect the lamps from damage. The table to the right contains all dimensional data for each of the PCP Compounds. All PCP Compounds are rated at 500 fpm. As residence time is the most critical factor in designing a viable solution, do not exceed 500 fpm. Each panel has a 0.05" H₂O pressure drop @ 500 FPM.

POWER

Ballasts are matched to the specific length of lamp. To maintain tested performance, ballasts may not be substituted with another manufacturer's products. The ballasts must be specified as 120v, 60 Hz: contact the factory for other voltage/frequency requirements. The ballast operating temperature range is -20°F to 158°F. Power is delivered from Compound to Compound by a metal conduit running through the catalyst panels.

SAFETY

Safety door switches are recommended and options of a Current Killbox (CKB) on duct/AHU units. This CKB switches off the lamps when air pressure drops below 0.15 inches H₂O. It also includes provisions for a door switch circuit and BAS lamp monitoring circuit.

		Height Designation	Width Designation	Ball From Standards	Actual Height	Total Length with Ballast Tray and Bolled frames	Lamps	Lamp Length	Amp per Lamp	Total Amps	Approx Weight Gal. lbs.	Approx Weight SS. lbs.	
1212	1	12	12	12	11.5	14,938	2	12"	0.224	0.45	7.348	6.488	
1216	2	12	16	16	11.5	18,938	2	16"	0.296	0.59	8.224	7.364	
1220	3	12	20	20	11.5	22,938	2	20"	0.267	0.73	9.099	8.239	
1224	4	12	24	24	11.5	26,938	2	24"	0.367	0.73	9.305	8.475	
1228	5	12	24	24	11.5	26,938	2	24"	0.519	1.04	9.975	9.115	
1228	6	12	28	16	12	30,438	2	28"	0.604	1.21	12.327	11.030	
1232	7	12	32	22	9	34,438	2	31"	0.659	1.32	13.203	11.906	
1233	6	12	33	24	9	35,938	2	31"	0.659	1.32	13.489	12.192	
1236	9	12	36	24	12	36,438	2	36"	0.752	1.50	14.078	12.781	
1237	10	12	37	24	13	39,668	2	36"	0.752	1.50	14.331	13.034	
1240	11	12	40	20	20	42,438	2	40"	0.844	1.69	14.954	13.657	
1241	12	12	41	21	20	43,543	2	40"	0.844	1.69	15.190	13.892	
1244	13	12	44	24	20	44,438	2	44"	0.908	1.82	15.829	14.522	
1245	14	12	45	24	21	47,543	2	44"	0.908	1.82	16.065	14.768	
1246	15	12	46	24	22	48,938	2	44"	0.908	1.82	16.304	15.017	
1248	16	12	48	24	24	50,438	2	48"	0.981	1.96	16.705	15.405	
1252	17	12	52	24	16	53,938	2	51.5"	1.033	2.07	19.057	17.323	
1253	16	12	53	24	20	9	55,438	2	51.5"	1.033	2.07	19.343	17.609
1256	19	12	56	24	22	9	57,938	2	55"	1.105	2.21	19.933	18.199
1257	20	12	57	24	24	9	59,438	2	55"	1.105	2.21	20.219	18.485
1260	21	12	59	21	17	11.5	61,688	2	59"	1.17	2.34	20.590	18.966
1260	22	12	60	24	24	12	61,938	2	59"	1.17	2.34	20.808	19.074
1261	23	12	61	24	24	14a	63,438	2	59"	1.17	2.34	21.095	19.260
1262	24	12	62	24	24	14b	64,188	2	59"	1.17	2.34	21.286	19.546
1612	25	16	12	12	15.5	14,938	3	12"	0.224	0.67	9.753	8.556	
1618	26	16	16	16	15.5	18,938	3	16"	0.296	0.89	10.741	9.544	
1620	27	16	20	20	15.5	22,938	3	20"	0.267	1.10	11.730	10.532	
1621	28	16	21	21	15.5	24,043	3	20"	0.267	1.10	11.994	10.796	
1624	29	16	24	24	15.5	26,938	3	24"	0.519	1.56	12.718	11.521	
1626	30	16	28	16	12	30,438	3	28"	0.604	1.81	15.855	14.020	
1632	31	16	32	22	9	34,438	3	31"	0.659	1.98	16.843	15.019	
1633	32	16	33	24	9	35,938	3	31"	0.659	1.98	17.157	15.233	
1636	33	16	36	24	12	36,438	3	36"	0.752	2.25	17.831	16.007	
1637	34	16	37	24	13	39,668	3	36"	0.752	2.25	18.112	16.288	
1640	35	16	40	20	20	42,438	3	40"	0.844	2.53	18.890	16.995	
1641	36	16	41	21	20	43,543	3	40"	0.844	2.53	19.084	17.259	
1644	37	16	44	24	20	44,438	3	44"	0.908	2.72	19.808	17.984	
1645	38	16	45	24	21	47,543	3	44"	0.908	2.72	20.072	18.248	
1646	39	16	46	24	22	48,938	3	44"	0.908	2.72	20.370	18.545	
1648	40	16	48	24	24	50,438	3	48"	0.981	2.94	20.797	18.972	
1652	41	16	52	24	16	53,938	3	51.5"	1.033	3.10	23.933	21.482	
1653	42	16	53	24	20	9	55,438	3	51.5"	1.033	3.10	24.247	21.796
1656	43	16	56	24	22	9	57,938	3	55"	1.105	3.32	24.922	22.470
1657	44	16	57	24	24	9	59,438	3	55"	1.105	3.32	25.236	22.784
1659	45	16	59	21	17	15.5	61,688	3	59"	1.17	3.51	25.764	23.212
1660	46	16	60	24	24	12	61,938	3	59"	1.17	3.51	25.910	23.485
1661	47	16	61	24	24	14a	63,438	3	59"	1.17	3.51	26.224	23.773
1662	48	16	62	24	24	14b	64,188	3	59"	1.17	3.51	26.438	23.986
1726	49	17	28	25	17	28,000	3	24"	0.519	1.56	14.000	12.292	
2012	50	20	12	12	19.5	14,938	3	12"	0.224	0.67	11.014	9.856	
2016	51	20	16	16	19.5	18,938	3	16"	0.296	0.89	12.115	10.657	
2020	52	20	20	20	19.5	22,938	3	20"	0.267	1.10	13.217	11.758	
2021	53	20	21	21	19.5	24,043	3	20"	0.267	1.10	13.509	12.050	
2024	54	20	24	24	19.5	26,938	3	24"	0.519	1.56	14.318	12.859	
2028	55	20	28	16	12	30,438	3	28"	0.604	1.81	17.970	15.270	
2032	56	20	32	22	9	34,438	3	31"	0.659	1.98	19.071	16.672	
2033	57	20	33	24	9	35,938	3	31"	0.659	1.98	19.414	17.214	
2036	58	20	36	24	12	36,438	3	36"	0.752	2.25	20.170	17.973	
2037	59	20	37	24	13	39,668	3	36"	0.752	2.25	20.481	18.282	
2040	60	20	40	20	20	42,438	3	40"	0.844	2.53	21.274	19.074	
2041	61	20	41	21	20	43,543	3	40"	0.844	2.53	21.566	19.286	
2044	62	20	44	24	20	44,438	3	44"	0.908	2.72	22.375	20.175	
2045	63	20	45	24	21	47,543	3	44"	0.908	2.72	22.667	20.468	
2046	64	20	46	24	22	48,938	3	44"	0.908	2.72	22.993	20.793	
2048	65	20	48	24	24	50,438	3	48"	0.981	2.94	23.476	21.277	
2052	66	20	52	24	16	53,938	3	51.5"	1.033	3.10	27.128	24.189	
2053	67	20	53	24	20	9	55,438	3	51.5"	1.033	3.10	27.471	24.530
2056	68	20	56	24	22	9	57,938	3	55"	1.105	3.32	28.230	25.289
2057	69	20	57	24	24	9	59,438	3	55"	1.105	3.32	28.572	25.631
2060	70	20	59	21	17	19.5	61,688	3	59"	1.17	3.51	29.156	26.216
2060	71	20	60	24	24	12	61,938	3	59"	1.17	3.51	29.331	26.290
2061	72	20	61	24	24	14a	63,438	3	59"	1.17	3.51	29.673	26.733
2062	73	20	62	24	24	14b	64,188	3	59"	1.17	3.51	29.915	26.974
2412	74	24	12	12	23.5	14,938	4	12"	0.224	0.90	13.285	11.827	
2416	75	24	16	16	23.5	18,938	4	16"	0.296	1.15	14.499	12.741	
2420	76	24	20	20	23.5	22,938	4	20"	0.267	1.47	15.713	13.955	
2421	77	24	21	21	23.5	24,043	4	20"	0.267	1.47	16.003	14.275	
2424	78	24	24	24	23.5	26,938	4	24"	0.519	2.08	16.927	15.169	
2428	79	24	28	16	12	30,438	4	28"	0.604	2.42	21.229	18.578	
2432	80	24	32	22	9	34,438	4	31"	0.659	2.64	22.443	19.792	
2433	81	24	33	24	9	35,938	4	31"	0.659	2.64	22.814	20.163	
2436	82	24	36	24	12	36,438	4	36"	0.752	3.01	23.657	21.006	
2437	83	24	37	24	13	39,668	4	36"	0.752	3.01	23.994	21.343	
2440	84	24	40	20	20	42,438	4	40"	0.844	3.38	24.871	22.220	
2441	85	24	41	21	20	43,543	4	40"	0.844	3.38	25.192	22.541	
2444	86	24	44	24	20	44,438	4	44"	0.908	3.63	26.085	23.434	
2445	87	24	45	24	21	47,543	4	44"	0.908	3.63	26.406	23.755	
2446	88	24	46	24	22	48,938	4	44"	0.908	3.63	26.759	24.109	
2448	89	24	48	24	24	50,438	4	48"	0.981	3.92	27.299	24.649	
2452	90	24	52	24	16	53,938	4	51.5"	1.033	4.13	31.601	28.057	
2453	91	24	53	24	20	9	55,438	4	51.5"	1.033	4.13	31.972	28.428
2456	92	24	56	24	22	9	57,938	4	55"	1.105	4.42	32.615	29.272
2457	93	24	57	24	24	9	59,438	4	55"	1.105	4.42	33.186	29.642
2459	94	24	59	21	17	23.5	61,688	4	59"	1.17	4.68	33.627	30.283
2460	95	24	60	24	24	12	61,938	4	59"	1.17	4.68	34.000	30.486
2461	96	24	61	24	24	14a	63,438	4	59"	1.17	4.68	34.400	30.856
2462	97	24	62	24	24	14b	64,188	4	59"	1.17	4.68	34.670	31.126