IAQ Solutions™ 2008 PCP Compound

IAQ Solutions
The natural path to clean air

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.

IAQ Solutions Photocatalysis GAP™

Providing Environmentally Sound Engineered Solutions for Indoor Air Quality

IAQ Solutions Inc.™ technology (*patent pending*) often eliminates the need for costly HEPA and carbon filtration. ***IAQ Solutions*** units do not produce ozone.

Special Features:

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

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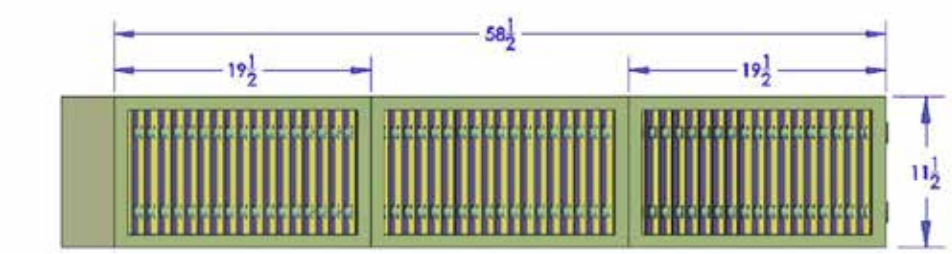
CLASSIFIED C UL US 40HX UL FILE NO. E326567

EPA United States Environmental Protection Agency

OSP-0307-10

FIFRA 87447-TX-001



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.iaqsolutionsinc.net

Clean

Step 2: UVGI Lamps...
uses ultraviolet light to energize the photocatalyst and cleans surfaces.

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Convert

Step 3: Photocatalysis...
Using Titanium Dioxide energized by UV light IAQ Solutions, 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 safely reduces concentrations of VOCs.

PCP Compounds
IAQ Solutions 11.11.11

DIMENSIONAL DATA

A PCP Compound is comprised of PCP Standards connected together with a ballast tray. For example, the drawing to the right 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	Built From Standards			Actual Height	Total Length with Ballast Tray and Bolted 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	6,480
1216	2	12	16	16			11.5	18.938	2	16"	0.296	0.59	8,224	7,264
1220	3	12	20	20			11.5	22.938	2	20"	0.367	0.73	9,099	8,239
1221	4	12	21	21			11.5	24.063	2	20"	0.367	0.73	9,335	8,475
1224	5	12	24	24			11.5	26.938	2	24"	0.519	1.04	9,975	9,115
1228	6	12	28	16	12		11.5	30.438	2	28"	0.604	1.21	12,327	11,030
1232	7	12	32	22	9		11.5	34.438	2	31"	0.659	1.32	13,203	11,906
1233	8	12	33	24	9		11.5	35.938	2	31"	0.659	1.32	13,489	12,192
1236	9	12	36	24	12		11.5	38.438	2	36"	0.752	1.50	14,078	12,781
1237	10	12	37	24	13		11.5	39.688	2	36"	0.752	1.50	14,331	13,034
1240	11	12	40	20	20		11.5	42.438	2	40"	0.844	1.69	14,954	13,657
1241	12	12	41	21	20		11.5	43.563	2	40"	0.844	1.69	15,190	13,892
1244	13	12	44	24	20		11.5	46.438	2	44"	0.908	1.82	15,829	14,532
1245	14	12	45	24	21		11.5	47.563	2	44"	0.908	1.82	16,065	14,768
1248	15	12	46	24	22		11.5	48.938	2	44"	0.908	1.82	16,334	15,037
1248	16	12	48	24	24		11.5	50.438	2	48"	0.981	1.96	16,705	15,408
1252	17	12	52	24	16	12	11.5	53.938	2	51.5"	1.033	2.07	19,057	17,323
1253	18	12	53	24	20	9	11.5	55.438	2	51.5"	1.033	2.07	19,343	17,609
1256	19	12	56	24	22	9	11.5	57.938	2	55"	1.105	2.21	19,933	18,199
1257	20	12	57	24	24	9	11.5	59.438	2	55"	1.105	2.21	20,219	18,485
1259	21	12	59	21	21	17	11.5	61.688	2	59"	1.17	2.34	20,690	18,956
1260	22	12	60	24	24	12	11.5	61.938	2	59"	1.17	2.34	20,808	19,074
1261	23	12	61	24	24	14a	11.5	63.438	2	59"	1.17	2.34	21,095	19,360
1262	24	12	62	24	24	14b	11.5	64.188	2	59"	1.17	2.34	21,280	19,546
1612	25	16	12	12			15.5	14.938	3	12"	0.224	0.67	9,753	8,556
1616	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"	0.367	1.10	11,730	10,532
1621	28	16	21	21			15.5	24.063	3	20"	0.367	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
1628	30	16	28	16	12		15.5	30.438	3	28"	0.604	1.81	15,855	14,030
1632	31	16	32	22	9		15.5	34.438	3	31"	0.659	1.98	16,843	15,019
1633	32	16	33	24	9		15.5	35.938	3	31"	0.659	1.98	17,157	15,333
1636	33	16	36	24	12		15.5	38.438	3	36"	0.752	2.26	17,831	16,007
1637	34	16	37	24	13		15.5	39.688	3	36"	0.752	2.26	18,112	16,288
1640	35	16	40	20	20		15.5	42.438	3	40"	0.844	2.53	18,890	16,595
1641	36	16	41	21	20		15.5	43.563	3	40"	0.844	2.53	19,084	17,259
1644	37	16	44	24	20		15.5	46.438	3	44"	0.908	2.72	19,808	17,984
1645	38	16	45	24	21		15.5	47.563	3	44"	0.908	2.72	20,072	18,248
1648	39	16	46	24	22		15.5	48.938	3	44"	0.908	2.72	20,370	18,545
1648	40	16	48	24	24		15.5	50.438	3	48"	0.981	2.94	20,797	18,972
1652	41	16	52	24	16	12	15.5	53.938	3	51.5"	1.033	3.10	23,933	21,482
1653	42	16	53	24	20	9	15.5	55.438	3	51.5"	1.033	3.10	24,247	21,796
1656	43	16	56	24	22	9	15.5	57.938	3	55"	1.105	3.32	24,922	22,470
1657	44	16	57	24	24	9	15.5	59.438	3	55"	1.105	3.32	25,236	22,784
1659	45	16	59	21	21	17	15.5	61.688	3	59"	1.17	3.51	25,764	23,312
1660	46	16	60	24	24	12	15.5	61.938	3	59"	1.17	3.51	25,910	23,458
1661	47	16	61	24	24	14a	15.5	63.438	3	59"	1.17	3.51	26,224	23,773
1662	48	16	62	24	24	14b	15.5	64.188	3	59"	1.17	3.51	26,438	23,986
1728	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	9,556
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"	0.367	1.10	13,217	11,758
2021	53	20	21	21			19.5	24.063	3	20"	0.367	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		19.5	30.438	3	28"	0.604	1.81	17,970	15,770
2032	56	20	32	22	9		19.5	34.438	3	31"	0.659	1.98	19,071	16,872
2033	57	20	33	24	9		19.5	35.938	3	31"	0.659	1.98	19,414	17,214
2036	58	20	36	24	12		19.5	38.438	3	36"	0.752	2.26	20,173	17,973
2037	59	20	37	24	13		19.5	39.688	3	36"	0.752	2.26	20,481	18,282
2040	60	20	40	20	20		19.5	42.438	3	40"	0.844	2.53	21,274	19,074
2041	61	20	41	21	20		19.5	43.563	3	40"	0.844	2.53	21,566	19,366
2044	62	20	44	24	20		19.5	46.438	3	44"	0.908	2.72	22,375	20,175
2045	63	20	45	24	21		19.5	47.563	3	44"	0.908	2.72	22,667	20,468
2048	64	20	46	24	22		19.5	48.938	3	44"	0.908	2.72	22,993	20,793
2048	65	20	48	24	24		19.5	50.438	3	48"	0.981	2.94	23,476	21,277
2052	66	20	52	24	16	12	19.5	53.938	3	51.5"	1.033	3.10	27,128	24,185
2053	67	20	53	24	20	9	19.5	55.438	3	51.5"	1.033	3.10	27,471	24,530
2056	68	20	56	24	22	9	19.5	57.938	3	55"	1.105	3.32	28,230	25,289
2057	69	20	57	24	24	9	19.5	59.438	3	55"	1.105	3.32	28,572	25,631
2059	70	20	59	21	21	17	19.5	61.688	3	59"	1.17	3.51	29,156	26,216
2060	71	20	60	24	24	12	19.5	61.938	3	59"	1.17	3.51	29,331	26,390
2061	72	20	61	24	24	14a	19.5	63.438	3	59"	1.17	3.51	29,673	26,733
2062	73	20	62	24	24	14b	19.5	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	11,527
2416	75	24	16	16			23.5	18.938	4	16"	0.296	1.18	14,499	12,741
2420	76	24	20	20			23.5	22.938	4	20"	0.367	1.47	15,713	13,955
2421	77	24	21	21			23.5	24.063	4	20"	0.367	1.47	16,033	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		23.5	30.438	4	28"	0.604	2.42	21,229	18,578
2432	80	24	32	22	9		23.5	34.438	4	31"	0.659	2.64	22,443	19,792
2433	81	24	33	24	9		23.5	35.938	4	31"	0.659	2.64	22,814	20,163
2436	82	24	36	24	12		23.5	38.438	4	36"	0.752	3.01	23,657	21,006
2437	83	24	37	24	13		23.5	39.688	4	36"	0.752	3.01	23,994	21,343
2440	84	24	40	20	20		23.5	42.438	4	40"	0.844	3.38	24,871	22,220
2441	85	24	41	21	20		23.5	43.563	4	40"	0.844	3.38	25,192	22,541
2444	86	24	44	24	20		23.5	46.438	4	44"	0.908	3.63	26,085	23,434
2445	87	24	45	24	21		23.5	47.563	4	44"	0.908	3.63	26,406	23,755
2448	88	24	46	24	22		23.5	48.938	4	44"	0.908	3.63	26,759	24,109
2448	89	24	48	24	24		23.5	50.438	4	48"	0.981	3.92	27,299	24,649
2452	90	24	52	24	16	12	23.5	53.938	4	51.5"	1.033	4.13	31,601	28,057
2453	91	24	53	24	20	9	23.5	55.438	4	51.5"	1.033	4.13	31,972	28,428
2456	92	24	56	24	22	9	23.5	57.938	4	55"	1.105	4.42	32,815	29,272
2457	93	24	57	24	24	9	23.5	59.438	4	55"	1.105	4.42	33,186	29,642
2459	94	24	59	21	21	17	23.5	61.688	4	59"	1.17	4.68	33,827	30,283
2460	95	24	60	24	24	12	23.5	61.938	4	59"	1.17	4.68	34,030	30,486
2461	96	24	61	24	24	14a	23.5	63.438	4	59"	1.17	4.68	34,400	30,856
2462	97	24	62	24	24	14b	23.5	64.188	4	59"	1.17	4.68	34,670	31,126