

All Wheels Recover Energy Some Do it Better...



DRI™ ECO FRESH™
Energy Recovery Wheels

MS 200 SERIES



Certifications



AHRI Certified Performance



UL Logo



Rotor Media is RoHS Compliant



CE Marked



Zero Flame Spread



ISO 9001:2015 Certified Company



ISO 14001:2015 Certified Company



Bacteria-static.
Does not support microbial growth

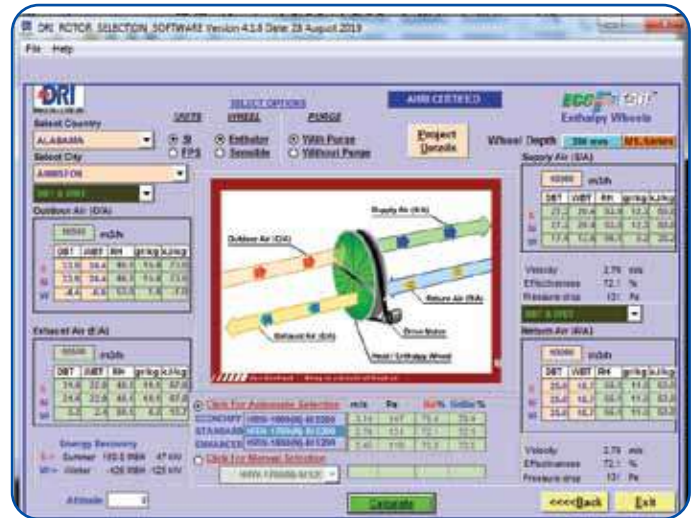
State-of-the-art Facilities



Fully integrated manufacturing facility for :

- Synthesizing / coating.
- Winding.
- Inhouse Metal work.
- Quick response, fast delivery.
- Substantial capacity to meet large orders.
- Experience with strong OEM customer base worldwide.
- Surface finishing including CNC fabrication & powder coating.

Selection Software Available



Benefits of 

.. Beyond Payback

Better ★ Humidity Control ★ Energy Recovery

Thus, better and enhanced IAQ at lower Energy costs

- Pre-conditions incoming fresh air.
- Easily integrated/retrofitted into new/existing ventilation systems.
- Delivers fresh air throughout the year at conditions very near inside conditions.
- Helps to meet ventilation standard without raising energy cost.
- Maintains humidity conditions at no additional cost.
- Allows reduction in system capacity by 30% to 65%.

EcoFresh Wheels have played a major role in many projects for achieving sustainable Green Building status with LEED and other energy certifications.

GBC Memberships



World-Class Manufacturing & Test Facilities



DRI has set up a World-class Test Facility for performance evaluation of Enthalpy Wheels.



Think Afresh . . .with MS 200 series !!



High Selectivity :

EcoFresh Energy Wheels MS 200 series use **Molecular Sieve 3Å (EcoSorb 300)** desiccant coated on aluminum substrate and this results in high latent recovery and control on cross contamination.

Aluminium Substrate :

The aluminium substrate eliminates any fire risks and results in high sensible recovery and high structural strength.

In-built Purge Sector Eliminates Cross Contamination :

Purge section provides strict separation of air flows, preventing carryover of bacteria, dust and pollutants from exhaust air to supply air. Purge section and sealing system limit cross contamination to 0.04% of the exhaust air concentration by volume.

Non Contact Labyrinth Seal :

- No wear and tear.
- Long life.
- Effective sealing.
- Brush seal for wheels upto 2200 mm.

Structural Rigidity, Hardened Edges & Innovative Manufacturing Design :

- State-of-the-art winding technology and adhesives give EcoFresh rotors high structural strength.
- Wheel Edges hardened as standard to suit marine coastal application needs.

Highly Polished Surface :

Vertical run out less than 1 mm per 1000 mm resulting in extremely low leakage across the central divider seals.

Robust Spoke Structure.

Highest Recovery Efficiency Ratio (RER) In The Industry

Industry's Highest Recovery/ Performance :

- High Desiccant loading / coating.
- Nearly equal sensible and latent recovery, thus comparatively higher total enthalpy recovery.
- Higher performance, low pressure drops.
- Laminar airflow due to thin aluminium substrate & uniform desiccant coating.
- Superior airflow characteristics.

Wide Range & Additional Options :

- Total energy recovery (Enthalpy) & AHRI Certified sensible wheels.
- Customized Flute height and Rotors depth-options.
- Cassette as well as Rotor options.
- Standard and Customized options.
- 500 mm to 5000 mm (dia.)
- Easy retrofit options.

Segmented and Non Segmented Options.

Controls Package Available.

Worldwide Presence

DRI has its Airengineers spread out world over

- | | | | | | |
|---------------|------------|-------------|----------------|---------------|----------|
| • India | • Malaysia | • Indonesia | • Vietnam | • Philippines | • Korea |
| • China | • Japan | • USA | • Canada | • Bangladesh | • Brazil |
| • Switzerland | • Nigeria | • UAE | • Saudi Arabia | | |



DRI™ ECOFRESH™
Energy Recovery Wheels



Heat Recovery Wheel - Performance Data

HRW Series (MS-200-1.9MM)



Velocity	M/S	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0	Height and Width "A" mm Inches	Depth in Flow Direction "B" mm Inches	Net Weight Kg. Pounds
	FPM	200	300	400	500	600	700	800	900	1000			
Sensible		83	80	78	75	73	71	69	66	64			
Latent (Winter Heating)	Effectiveness	80	77	75	72	69	66	63	60	58			
Latent (Summer Cooling)	(Balance)	80	77	75	72	69	66	63	60	58			
Total (Winter Heating)	In %	82	79	77	74	71	69	67	64	62			
Total (Summer Cooling)		81	78	76	73	71	68	65	62	60			
Pressure Drop	Pa	74	85	102	122	143	165	189	214	241			
	in. w.c	0.29	0.33	0.40	0.48	0.56	0.65	0.74	0.84	0.95			
Model Number	Air Volume												
HRW-500(N)-MS 200	CMH	273	409	546	682	765	955	1092	1228	1365	700	295	55
	CFM	161	241	321	402	450	562	642	723	803	27.6	11.6	121
HRW-600(N)-MS 200	CMH	416	623	831	1039	1189	1454	1662	1870	2078	800	295	63
	CFM	245	367	489	611	700	856	978	1100	1223	31.5	11.6	139
HRW-700(N)-MS 200	CMH	586	879	1172	1465	1699	2051	2345	2638	2931	850	295	68
	CFM	345	517	690	862	1000	1207	1380	1552	1725	33.5	11.6	150
HRW-800(N)-MS 200	CMH	785	1177	1569	1962	2379	2746	3139	3531	3923	950	295	77
	CFM	462	693	924	1154	1400	1616	1847	2078	2309	37.4	11.6	170
HRW-900(N)-MS 200	CMH	1011	1517	2022	2528	3059	3539	4044	4550	5055	1030	295	85
	CFM	595	893	1190	1488	1800	2083	2380	2678	2975	40.6	11.6	187
HRW-1000(N)-MS 200	CMH	1265	1898	2531	3164	3738	4429	5062	5695	6327	1130	295	95
	CFM	745	1117	1489	1862	2200	2607	2979	3351	3724	44.5	11.6	209
HRW-1100(N)-MS 200	CMH	1548	2322	3096	3869	4588	5417	6191	6965	7739	1230	295	125
	CFM	911	1366	1822	2277	2700	3188	3643	4099	4554	48.4	11.6	276
HRW-1200(N)-MS 200	CMH	1820	2730	3640	4550	5438	6371	7281	8191	9101	1330	295	146
	CFM	1071	1607	2142	2678	3200	3749	4285	4820	5356	52.4	11.6	322
HRW-1300(N)-MS 200	CMH	2105	3157	4210	5262	6287	7367	8419	9472	10524	1430	295	172
	CFM	1239	1858	2477	3097	3700	4335	4955	5574	6193	56.3	11.6	379
HRW-1400(N)-MS 200	CMH	2467	3701	4934	6168	7307	8635	9869	11103	12336	1530	295	187
	CFM	1452	2178	2904	3630	4300	5082	5808	6534	7260	60.2	11.6	412
HRW-1500(N)-MS 200	CMH	2858	4286	5715	7144	8666	10002	11430	12859	14288	1630	295	199
	CFM	1682	2523	3363	4204	5100	5886	6727	7568	8409	64.2	11.6	439
HRW-1600(N)-MS 200	CMH	3239	4859	6479	8099	9686	11338	12958	14577	16197	1730	325	230
	CFM	1906	2860	3813	4766	5700	6672	7626	8579	9532	68.1	12.8	507
HRW-1700(N)-MS 200	CMH	3683	5524	7366	9207	11045	12890	14732	16573	18415	1830	325	235
	CFM	2167	3251	4335	5418	6500	7586	8670	9753	10837	72.0	12.8	518
HRW-1800(N)-MS 200	CMH	4154	6232	8309	10386	12574	14540	16617	18695	20772	1930	325	263
	CFM	2445	3667	4890	6112	7400	8557	9779	11002	12224	76.0	12.8	580
HRW-1900(N)-MS 200	CMH	4654	6981	9307	11634	13934	16288	18615	20942	23269	2030	325	282
	CFM	2739	4108	5477	6847	8200	9585	10955	12324	13694	79.9	12.8	622
HRW-2000(N)-MS 200	CMH	5181	7771	10362	12952	15633	18133	20724	23314	25905	2130	325	322
	CFM	3049	4574	6098	7623	9200	10672	12196	13721	15245	83.9	12.8	710
HRW-2130(N) (2200-MS 200_MonoG)	CMH	5907	8860	11813	14766	18182	20673	23626	26579	29533	2201	325	375
	CFM	3476	5214	6952	8690	10700	12166	13904	15642	17380	86.7	12.8	827
HRW-2200(N)-MS 200 (H.M. & SEG)	CMH	6355	9532	12709	15887	19031	22241	25419	28596	31773	2400	460	616
	CFM	3740	5610	7479	9349	11200	13089	14959	16829	18699	94.5	18.1	1358
HRW-2400(N)-MS 200 (MonoG)	CMH	7608	11413	15217	19021	22940	26630	30434	34238	38042	2480	325	479
	CFM	4478	6716	8955	11194	13500	15671	17910	20149	22388	97.6	12.8	1056
HRW-2400(N)-MS 200 (H.M. & SEG)	CMH	7608	11413	15217	19021	22940	26630	30434	34238	38042	2600	460	696
	CFM	4478	6716	8955	11194	13500	15671	17910	20149	22388	102.4	18.1	1534
HRW-2600(N)-MS 200	CMH	8974	13461	17948	22435	27018	31409	35896	40383	44870	2800	460	764
	CFM	5281	7922	10562	13203	15900	18484	21125	23765	26406	110.2	18.1	1684
HRW-2800(N)-MS 200	CMH	10451	15677	20902	26128	31436	36579	41805	47030	52256	3000	460	832
	CFM	6150	9226	12301	15376	18500	21527	24602	27677	30752	118.1	18.1	1834
HRW-3000(N)-MS 200	CMH	12040	18060	24080	30100	36194	42140	48160	54180	60200	3200	460	909
	CFM	7086	10628	14171	17714	21300	24800	28342	31885	35428	126.0	18.1	2003
HRW-3200(N)-MS 200	CMH	13741	20611	27481	34352	41291	48093	54963	61833	68704	3400	514	1000
	CFM	8086	12130	16173	20216	24300	28302	32346	36389	40432	133.9	20.2	2204
HRW-3400(N)-MS 200	CMH	15553	23330	31106	38883	46729	54436	62213	69989	77766	3600	514	1060
	CFM	9153	13730	18306	22883	27500	32036	36612	41189	45765	141.7	20.2	2336
HRW-3600(N)-MS 200	CMH	17477	26216	34954	43693	52506	61170	69909	78648	87386	3800	514	1154
	CFM	10285	15428	20571	25713	30900	35999	41141	46284	51427	149.6	20.2	2543
HRW-3800(N)-MS 200	CMH	19513	29270	39026	48783	58624	68296	78052	87809	97565	4000	514	1358
	CFM	11483	17225	22967	28709	34500	40192	45934	51676	57417	157.5	20.2	2993
HRW-4000(N)-MS 200	CMH	21661	32491	43321	54152	65081	75812	86643	97473	108303	4200	514	1448
	CFM	12747	19121	25495	31868	38300	44616	50989	57363	63737	165.4	20.2	3191
HRW-4200(N)-MS 200	CMH	23920	35880	47840	59800	71878	83720	95680	107640	119600	4400	514	2413
	CFM	14077	21115	28154	35192	42300	49269	56308	63346	70384	173.2	20.2	5318
HRW-4400(N)-MS 200	CMH	26291	39436	52582	65727	79014	92018	105164	118309	131455	4600	514	2550
	CFM	15472	23208	30944	38681	46500	54153	61889	69625	77361	181.1	20.2	5620
HRW-4600(N)-MS 200	CMH	28774	43161	57547	71934	86321	100708	115095	129482	143869	4800	514	2691
	CFM	16933	25400	33867	42333	50800	59267	67733	76200	84667	189.0	20.2	5931
HRW-4800(N)-MS 200	CMH	31368	47052	62736	78421	94138	109789	125473	141157	156841	5000	514	2835
	CFM	18460	27690	36920	46150	55400	64611	73841	83071	92301	196.9	20.2	6248
HRW-5000(N)-MS 200	CMH	34074	51112	68149	85186	102294	119260	136298	153335	170372	5200	514	2964
	CFM	20053	30079	40106	50132	60200	70185	80211	90238	100264	204.7	20.2	6533

Note: (1) Monolithic wheel up to HRW-2200(MonoG), HRW-2200 is also available in Half moon/Segmented construction for specific requirement. (2) 2400mm diameter and above rotor are available with removable segmented media. Half moon cassettes complete with half moon rotors for containerisation and ease of shipping are available as options. Dimensions and weight shall vary in such cases. (3) Because of our policy of continuous product improvements, specifications are subject to change without notice.



World Leader

in Energy Recovery

MS
270A
SERIES

DRI™ ECO FRESH™
Energy Recovery Wheels



World Class Features

High Selectivity :

EcoFresh Energy Wheels MS 270A series use **Molecular Sieve 3Å (EcoSorb 300)** desiccant coated on aluminium substrate. This results in high latent recovery and control on cross contamination.

Aluminium Substrate :

The aluminium substrate eliminates any fire risks and results in high sensible recovery and high structural strength.

In-built purge sector eliminates cross contamination :

Purge section provides strict separation of air flows, preventing carryover of bacteria, dust and pollutants from exhaust air to supply air.

Purge section and sealing system limit cross contamination to 0.04% of the exhaust air concentration by volume.

Non-Contact Labyrinth Seal :

- No wear and tear • Effective sealing • Long life • Brush seal for wheels upto 2200 mm.

Structural Rigidity, Hardened Edges and Innovative Manufacturing Design :

- State-of-the-art winding technology and adhesives give EcoFresh rotors high structural strength.
- Wheel edges hardened as standard to suit [marine coastal application needs](#).

Highly Polished Surface :

Vertical run-out less than 1 mm per 1000 mm resulting in extremely low leakage across the central divider seals.

Robust Spoke Structure

Highest Recovery Efficiency Ratio (RER) in the industry

Industry's Highest Recovery Performance :

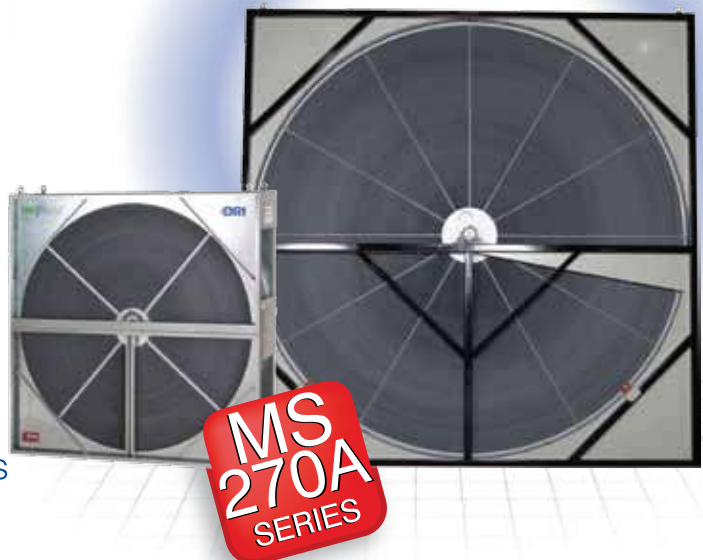
- High Desiccant loading / coating.
- Equal sensible and latent recovery, thus, comparatively higher total enthalpy recovery.
- Higher performance, low pressure drops.
- Laminar airflow due to thin aluminium substrate and uniform desiccant coating.
- Superior airflow characteristics.

Wide Range & Additional Options :

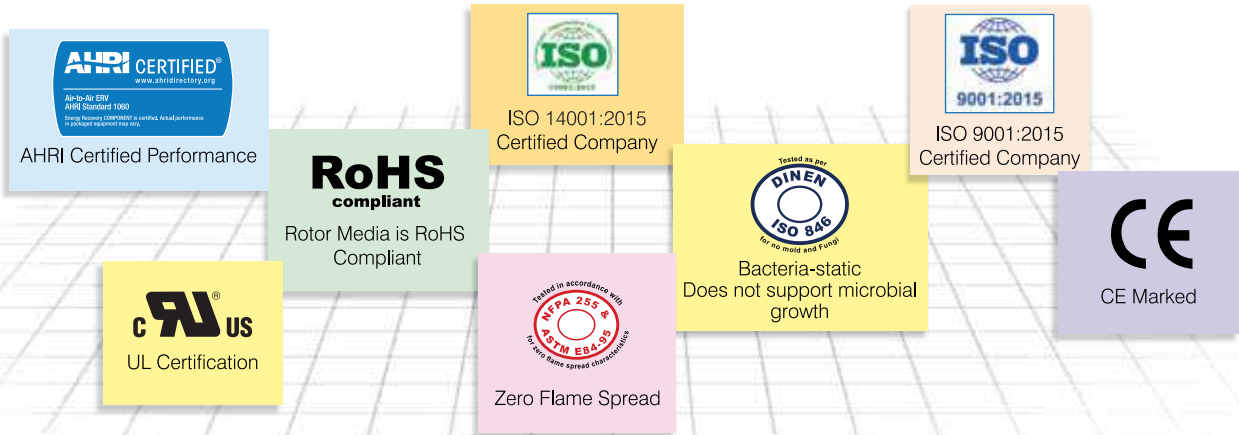
- Total energy recovery (Enthalpy) and AHRI Certified sensible wheels
- Customized flute height and rotor depth options
- Cassette as well as rotor options
- Standard and Customized options
- 500 mm to 5000 mm (dia.)
- Easy retrofit options

Segmented and Non-Segmented Options

Controls Package Available



Worldwide Recognition

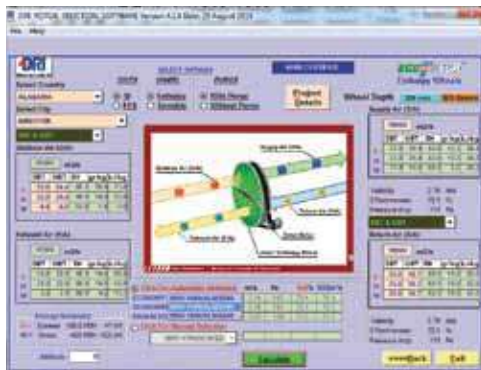


State-of-the-art Manufacturing & Test Facilities



Fully integrated Manufacturing Plant

Selection Software Available



World's largest installation base

DRI has the world's largest installation base of **3Å Molecular Sieve Coated Wheels**.

DRI Green building products help to maintain indoor Air Quality (IAQ) requirements and recover energy from exhaust air, resulting in considerable reduction in installed tonnage and utility bills.

They also assist in enhancing Indoor Air Quality (IAQ), maintaining desired temperature and humidity and increasing productivity.

Worldwide Memberships



DRI has its Airineers spread out world over

- India
- Indonesia
- Philippines
- China
- USA
- Bangladesh
- Switzerland
- UAE
- Malaysia
- Vietnam
- Korea
- Japan
- Canada
- Brazil
- Nigeria
- Saudi Arabia

Heat Recovery Wheel - Performance Data

HRW SERIES (MS-270A-1.8mm)



Velocity	M/S	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0			
	FPM	200	300	400	500	600	700	800	900	1000			
Sensible	Efficiency in %	90	88	85	82	80	78	77	75	73			
Latent (Winter Heating)		89	86	83	80	78	76	74	72	70			
Latent (Summer Cooling)		88	85	82	79	77	75	73	71	69			
Total (Winter Heating)		90	87	84	81	79	78	76	74	72			
Total (Summer Cooling)		89	86	83	80	78	76	75	73	71			
Pressure Drop	Pa	76	97	127	165	203	234	264	295	325			
	in. w.c	0.30	0.38	0.50	0.65	0.80	0.92	1.04	1.16	1.28			
Model Number		Air Volume											
HRW-500(N)-MS 270A	CMH	273	409	546	682	765	955	1092	1228	1365			
	CFM	161	241	321	402	450	562	642	723	803			
HRW-600(N)-MS 270A	CMH	416	623	831	1039	1189	1454	1662	1870	2078			
	CFM	245	367	489	611	700	856	978	1100	1223			
HRW-700(N)-MS 270A	CMH	586	879	1172	1465	1699	2051	2345	2638	2931			
	CFM	345	517	690	862	1000	1207	1380	1552	1725			
HRW-800(N)-MS 270A	CMH	785	1177	1569	1962	2379	2746	3139	3531	3923			
	CFM	462	693	924	1154	1400	1616	1847	2078	2309			
HRW-900(N)-MS 270A	CMH	1011	1517	2022	2528	3059	3539	4044	4550	5055			
	CFM	595	893	1190	1488	1800	2083	2380	2678	2975			
HRW-1000(N)-MS 270A	CMH	1265	1898	2531	3164	3738	4429	5062	5695	6327			
	CFM	745	1117	1489	1862	2200	2607	2979	3351	3724			
HRW-1100(N)-MS 270A	CMH	1548	2322	3096	3869	4588	5417	6191	6965	7739			
	CFM	911	1366	1822	2277	2700	3188	3643	4099	4554			
HRW-1200(N)-MS 270A	CMH	1820	2730	3640	4550	5438	6371	7281	8191	9101			
	CFM	1071	1607	2142	2678	3200	3749	4285	4820	5356			
HRW-1300(N)-MS 270A	CMH	2105	3157	4210	5262	6287	7367	8419	9472	10524			
	CFM	1239	1858	2477	3097	3700	4335	4955	5574	6193			
HRW-1400(N)-MS 270A	CMH	2467	3701	4934	6168	7307	8635	9869	11103	12336			
	CFM	1452	2178	2904	3630	4300	5082	5808	6534	7260			
HRW-1500(N)-MS 270A	CMH	2858	4286	5715	7144	8666	10002	11430	12859	14288			
	CFM	1682	2523	3363	4204	5100	5886	6727	7568	8409			
HRW-1600(N)-MS 270A	CMH	3239	4859	6479	8099	9686	11338	12958	14577	16197			
	CFM	1906	2860	3813	4766	5700	6672	7626	8579	9532			
HRW-1700(N)-MS 270A	CMH	3683	5524	7366	9207	11045	12890	14732	16573	18415			
	CFM	2167	3251	4335	5418	6500	7586	8670	9753	10837			
HRW-1800(N)-MS 270A	CMH	4154	6232	8309	10386	12574	14540	16617	18695	20772			
	CFM	2445	3667	4890	6112	7400	8557	9779	11002	12224			
HRW-1900(N)-MS 270A	CMH	4654	6981	9307	11634	13934	16288	18615	20942	23269			
	CFM	2739	4108	5477	6847	8200	9585	10955	12324	13694			
HRW-2000(N)-MS 270A	CMH	5181	7771	10362	12952	15633	18133	20724	23314	25905			
	CFM	3049	4574	6098	7623	9200	10672	12196	13721	15245			
HRW-2130(N)-MS 270A	CMH	6024	9036	12049	15061	18182	21085	24097	27109	30122			
	CFM	3545	5318	7091	8863	10700	12409	14181	15954	17727			
HRW-2200(N)-MS 270A (MonoG)	CMH	6355	9532	12709	15887	19031	22241	25419	28596	31773			
	CFM	3740	5610	7479	9349	11200	13089	14959	16829	18699			
HRW-2200(N)-MS 270A (H.M. & SEG)	CMH	6355	9532	12709	15887	19031	22241	25419	28596	31773			
	CFM	3740	5610	7479	9349	11200	13089	14959	16829	18699			
HRW-2400(N)-MS 270A (MonoG)	CMH	7608	11413	15217	19021	22940	26630	30434	34238	38042			
	CFM	4478	6716	8955	11194	13500	15671	17910	20149	22388			
HRW-2400(N)-MS 270A (H.M. & SEG)	CMH	7608	11413	15217	19021	22940	26630	30434	34238	38042			
	CFM	4478	6716	8955	11194	13500	15671	17910	20149	22388			
HRW-2600(N)-MS 270A	CMH	8974	13461	17948	22435	27018	31409	35896	40383	44870			
	CFM	5281	7922	10562	13203	15900	18484	21125	23765	26406			
HRW-2800(N)-MS 270A	CMH	10451	15677	20902	26128	31436	36579	41805	47030	52256			
	CFM	6150	9226	12301	15376	18500	21527	24602	27677	30752			
HRW-3000(N)-MS 270A	CMH	12040	18060	24080	30100	36194	42140	48160	54180	60200			
	CFM	7086	10628	14171	17714	21300	24800	28342	31885	35428			
HRW-3200(N)-MS 270A	CMH	13741	20611	27481	34352	41291	48093	54963	61833	68704			
	CFM	8086	12130	16173	20216	24300	28302	32346	36389	40432			
HRW-3400(N)-MS 270A	CMH	15553	23330	31106	38883	46729	54436	62213	69989	77766			
	CFM	9153	13730	18306	22883	27500	32036	36612	41189	45765			
HRW-3600(N)-MS 270A	CMH	17477	26216	34954	43693	52506	61170	69909	78648	87386			
	CFM	10285	15428	20571	25713	30900	35999	41141	46284	51427			
HRW-3800(N)-MS 270A	CMH	19513	29270	39026	48783	58624	68296	78052	87809	97565			
	CFM	11483	17225	22967	28709	34500	40192	45934	51676	57417			
HRW-4000(N)-MS 270A	CMH	21661	32491	43321	54152	65081	75812	86643	97473	108303			
	CFM	12747	19121	25495	31868	38300	44616	50989	57363	63737			
HRW-4200(N)-MS 270A	CMH	23920	35880	47840	59800	71878	83720	95680	107640	119600			
	CFM	14077	21115	28154	35192	42300	49269	56308	63346	70384			
HRW-4400(N)-MS 270A	CMH	26291	39436	52582	65727	79014	92018	105164	118309	131455			
	CFM	15472	23208	30944	38681	46500	54153	61889	69625	77361			
HRW-4600(N)-MS 270A	CMH	28774	43161	57547	71934	86321	100708	115095	129482	143869			
	CFM	16933	25400	33867	42333	50800	59267	67733	76200	84667			
HRW-4800(N)-MS 270A	CMH	31368	47052	62736	78421	94138	109789	125473	141157	156841			
	CFM	18460	27690	36920	46150	55400	64611	73841	83071	92301			
HRW-5000(N)-MS 270A	CMH	34074	51112	68149	85186	102294	119260	136298	153335	170372			
	CFM	20053	30079	40106	50132	60200	70185	80211	90238	100264			

Note: (1) 2200mm diameter and above rotor are available with removable segmented media. Half moon cassettes complete with half moon rotors for containerisation and ease of shipping are available as options. Dimensions and weight shall vary in such cases. (2) Because of our policy of continuous product improvements, specifications are subject to change without notice.



ALL WHEELS RECOVERY ENERGY SOME DO IT BETTER...



F2 200 SERIES

DRI™ ECO FRESH™
Energy Recovery Wheels



Think Afresh...with F2 200 series !!

Worldwide Memberships



High Selectivity :

EcoFresh Energy Wheels *F2 200 series* use special, Selective Zeolite Desiccant coated on aluminum substrate and this results in high latent recovery and control on cross contamination.

Aluminium Substrate :

The aluminium substrate eliminates any fire risks and results in high sensible recovery and high structural strength.

In-built purge sector eliminates cross contamination :

Purge section provides strict separation of air flows, preventing carryover of bacteria, dust and pollutants from exhaust air to supply air. Purge section and sealing system limit cross contamination to 0.04% of the exhaust air concentration by volume.

Non Contact Labyrinth seal :

- ✓ No wear and tear.
- ✓ Effective sealing.
- ✓ Long life.
- ✓ Brush seal for wheels upto 2200 mm.

Structural Rigidity, Hardened Edges and Innovative Manufacturing Design :

- ✓ State-of-the-art winding technology and adhesives give *EcoFresh* rotors high structural strength.
- ✓ Wheel Edges hardened as standard to suit marine coastal application needs.

Highly Polished Surface :

Vertical run out less than 1 mm per 1000 mm resulting in extremely low leakage across the central divider seals.

Robust spoke Structure.

Highest Recovery Efficiency Ratio (RER) in the industry

Industry's highest recovery/performance :

- ✓ High Desiccant loading / coating.
- ✓ Nearly equal sensible and latent recovery, thus, comparatively higher total enthalpy recovery.
- ✓ Higher performance, low pressure drops.
- ✓ Laminar airflow due to thin aluminium substrate and uniform desiccant coating.
- ✓ Superior airflow characteristics.

Wide Range & Additional options :

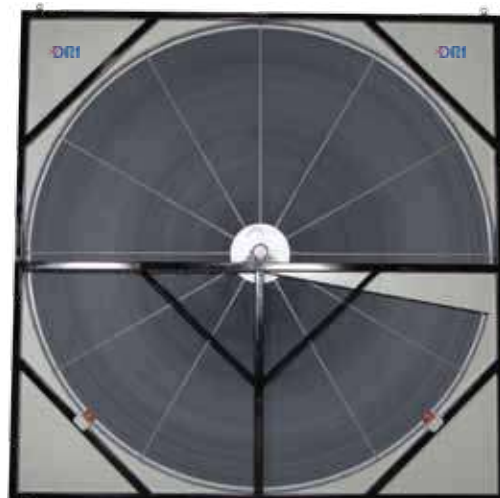
- ✓ Total energy recovery (Enthalpy) and AHRI Certified sensible wheels.
- ✓ Customized Flute height and Rotor depth options.
- ✓ Cassette as well as Rotor options.
- ✓ Standard and Customized options.
- ✓ 500 mm to 5000 mm (dia.)
- ✓ Easy retrofit options.
- ✓ Segmented and Non Segmented options.
- ✓ Controls Package available.

ECO FRESH™

Eurovent Certified



F2 200 SERIES



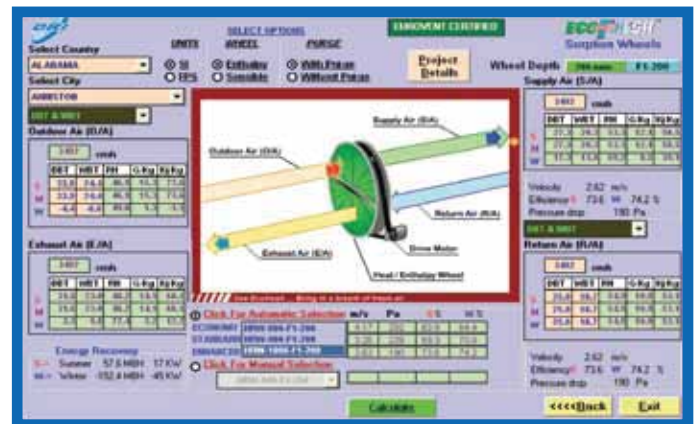
State-of-the-art Test Facilities



Why DRI ?

- ✓ Largest global producer of Enthalpy Wheels.
- ✓ #1 in performance... worldwide.
- ✓ First choice of Engineers and Consultants globally.
- ✓ Eurovent Certified Wheels.
- ✓ DRI also participates in the AHRI Certification Programme.
- ✓ Integrated Rotor manufacturing facility.
- ✓ World Class Rotor test facility\ (Enthalpy as well as Desiccant).

Selection Software Available



Fully Integrated Manufacturing Plant



Give Your Dehumidifiers the Winning Edge

with

Desiccant Dehumidifying Rotors & Cassettes



Desiccant Dehumidifying
Rotors & Cassettes

Absorbent
Non Toxic
Non Flammable
Fully water washable

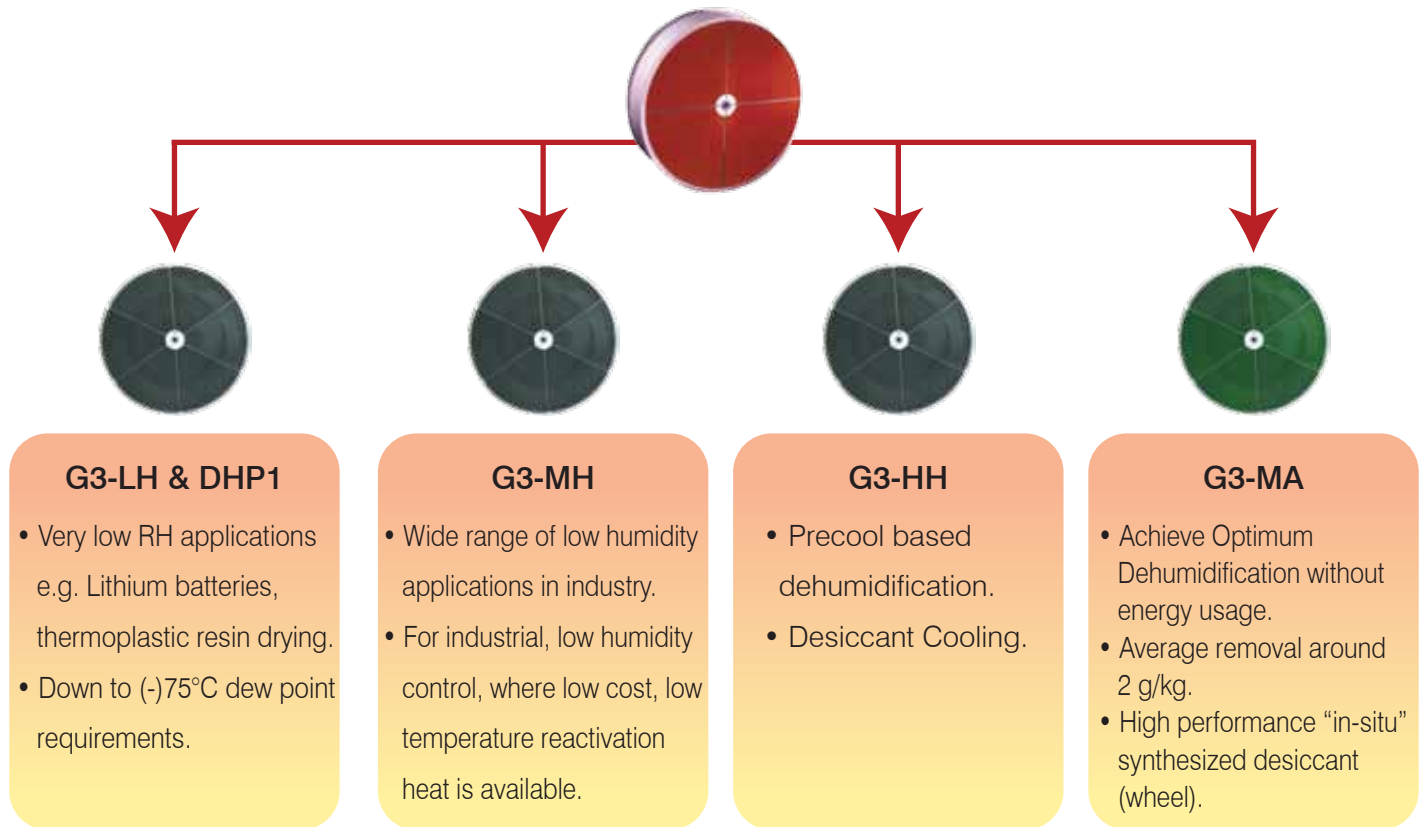


Innovative Air Solutions



Desiccant Dehumidifying Cassettes and Rotors for Low Humidity or High Ventilation needs !

Type of Ecodry Rotors



- Metal silicate synthesized on inorganic fiber substrate (net organics less than 2%).
- Customised depth and diameter to meet specific requirements.
- All EcoDry G3 series rotors allow for a very high moisture removal over a vast range of inlet conditions.
- The rotors are maintenance free and there is no deliquescence, and hence no special storage needs.
- Rotors can simply be cleaned by blowing air or even washed with water.
- The rotors are composed of stable, chemically inert inorganic material and offer excellent resistance to most chemicals.
- High Mechanical strength.
- The rotors can be reactivated using electrical heat, steam, hot water, natural gas, LPG, or thermic fluid heating.
- The rotors neither burn nor support combustion.
- Integral long life bearings.
- **zz**Rotor has perimeter flanges as standard.



DRI ... YOUR DEHUMIDIFICATION PARTNER

- Cassettes are CNC fabricated.
- Standard Stainless Steel Rims
- High moisture removal capacity at relatively low energy cost.
- Rotor depth 50, 100, 200 and 400 mm (standard).
- Unique PTFE bonded bulb seal design minimizes air leakage.
- Suitbale for continuous operation.
- Quick and easy to service.
- Easy, access to all major components.
- Quick serviceability and maintenance free operation.

Dessicant Dehumidification for Dry Rooms

Ultra low dew
point up to (-)90 °C



Powered by



- Proven success in meeting the stringent requirement of dew point lower than (-) 75 °C, can go up to (-)90 °C, required by lithium battery plants.
- Highest dry process airflow/kw.
- Rotor made up of pH neutral & chemical resistant material. Inertness to gases such as Hydrogen Fluoride (HF) generated during the production of Lithium-ion batteries.

ECODRY™

World-Class test facilities for
performance evaluation of
DESICCANT WHEELS

DRI Ecodry labs helps to test and produce rotors capable of delivering Extremely Low Dew Points for Specialized applications like Lithium Battery Rooms



ECODRY™ Desiccant Cassettes Data

Ratio 50:50

EDC 250-4250 (Rotor Depth 200)

S.No.	Model	Dimensions				Nominal Process Air Volume			Approx Weight In Pounds	Approx Weight In Kgs
		Unit	Wheel Dia	A	B	Unit	Min@2.0 m/sec	Max@4.0 m/sec		
1	EDC-250-200	inches	9.84	17.72	13.58	CFM	79	158	99	45
		mm	250	450	345	CMH	134	268		
2	EDC-370-200	inches	14.57	22.44	13.58	CFM	194	387	128	58
		mm	370	570	345	CMH	329	658		
3	EDC-440-200	inches	17.32	25.20	13.58	CFM	283	566	148	67
		mm	440	640	345	CMH	481	961		
4	EDC-550-200	inches	21.65	29.53	13.58	CFM	456	912	181	82
		mm	550	750	345	CMH	775	1550		
5	EDC-770-200	inches	30.31	38.19	13.58	CFM	913	1826	265	120
		mm	770	970	345	CMH	1551	3102		
6	EDC-965-200	inches	37.99	45.87	15.55	CFM	1431	2861	344	156
		mm	965	1165	395	CMH	2431	4862		
7	EDC-1220-200	inches	48.03	55.91	15.55	CFM	2331	4661	478	217
		mm	1220	1420	395	CMH	3960	7921		
8	EDC-1525-200	inches	60.04	66.93	15.55	CFM	3671	7341	662	300
		mm	1525	1700	395	CMH	6237	12474		
9	EDC-1740-200	inches	68.50	75.20	15.55	CFM	4776	9553	919	417
		mm	1740	1910	395	CMH	8116	16232		
10	EDC-1940-200	inches	76.38	83.27	15.55	CFM	5980	11960	1080	490
		mm	1940	2115	395	CMH	10161	20322		
11	EDC-2190-200	inches	86.22	93.11	15.55	CFM	7671	15343	1274	578
		mm	2190	2365	395	CMH	13035	26071		
12	EDC-2450-200	inches	96.46	104.33	16.73	CFM	9607	19213	1665	755
		mm	2450	2650	425	CMH	16324	32648		
13	EDC-2650-200	inches	104.33	112.20	16.73	CFM	11283	22565	1865	846
		mm	2650	2850	425	CMH	19172	38344		
14	EDC-2950-200	inches	116.14	124.02	16.73	CFM	14046	28093	2183	990
		mm	2950	3150	425	CMH	23868	47736		
15	EDC-3550-200	inches	139.76	147.64	16.73	CFM	20472	40944	2999	1360
		mm	3550	3750	425	CMH	37787	69573		
16	EDC-3950-200	inches	155.51	163.39	16.73	CFM	25421	50842	3541	1606
		mm	3950	4150	425	CMH	43197	86393		
17	EDC-4250-200	inches	167.32	175.20	16.73	CFM	29483	58965	3978	1804
		mm	4250	4450	425	CMH	50098	100196		

Ratio 75:25

EDC 250-4250 (Rotor Depth 200)

		Dimensions				Nominal Process Air Volume			Approx	Approx
S.No.	Model	Unit	Wheel Dia	A	B	Unit	Min@2.0 m/sec	Max@4.0 m/sec	Weight In Pounds	Weight In Kgs
1	EDC-250-200	inches	9.84	17.72	13.58	CFM	118	237	99	45
		mm	250	450	345	CMH	201	402		
2	EDC-370-200	inches	14.57	22.44	13.58	CFM	291	581	128	58
		mm	370	570	345	CMH	494	988		
3	EDC-440-200	inches	17.32	25.20	13.58	CFM	424	849	148	67
		mm	440	640	345	CMH	721	1442		
4	EDC-550-200	inches	21.65	29.53	13.58	CFM	684	1368	181	82
		mm	550	750	345	CMH	1162	2324		
5	EDC-770-200	inches	30.31	38.19	13.58	CFM	1369	2738	265	120
		mm	770	970	345	CMH	2327	4653		
6	EDC-965-200	inches	37.99	45.87	15.55	CFM	2146	4292	344	156
		mm	965	1165	395	CMH	3646	7293		
7	EDC-1220-200	inches	48.03	55.91	15.55	CFM	3496	6992	478	217
		mm	1220	1420	395	CMH	5941	11881		
8	EDC-1525-200	inches	60.04	66.93	15.55	CFM	5506	11012	662	300
		mm	1525	1700	395	CMH	9356	18712		
9	EDC-1740-200	inches	68.50	75.20	15.55	CFM	7165	14329	919	417
		mm	1740	1910	395	CMH	12174	24349		
10	EDC-1940-200	inches	76.38	83.27	15.55	CFM	8970	17939	1080	490
		mm	1940	2115	395	CMH	15242	30483		
11	EDC-2190-200	inches	86.22	93.11	15.55	CFM	11507	23014	1274	578
		mm	2190	2365	395	CMH	19553	39106		
12	EDC-2450-200	inches	96.46	104.33	16.73	CFM	14410	28820	1665	755
		mm	2450	2650	425	CMH	24486	48972		
13	EDC-2650-200	inches	104.33	112.20	16.73	CFM	16924	33848	1865	846
		mm	2650	2850	425	CMH	28768	57516		
14	EDC-2950-200	inches	116.14	124.02	16.73	CFM	21069	42139	2183	990
		mm	2950	3150	425	CMH	35802	71604		
15	EDC-3550-200	inches	139.76	147.64	16.73	CFM	30708	61416	2999	1360
		mm	3550	3750	425	CMH	52180	104360		
16	EDC-3950-200	inches	155.51	163.39	16.73	CFM	38132	76264	3541	1606
		mm	3950	4150	425	CMH	64795	129590		
17	EDC-4250-200	inches	167.32	175.20	16.73	CFM	44224	88448	3978	1804
		mm	4250	4450	425	CMH	75147	150294		

Ratio 75:25

EDC 250-300 (Rotor Depth 50mm)

		Dimensions				Nominal Unit	Process Min@1.0 m/sec	Air Volume Max@2.0 m/sec	Approx Weight In Pounds	Approx Weight In Kgs
S.No.	Model	Unit	Wheel Dia	A	B					
1	EDC-250-50	inches	9.84	17.72	7.68	CFM	59	118	84	38
		mm	250	450	195	CMH	100	201		
2	EDC-300-50	inches	11.81	19.69	7.68	CFM	91	181	93	42
		mm	300	500	195	CMH	154	308		

Ratio 75:25

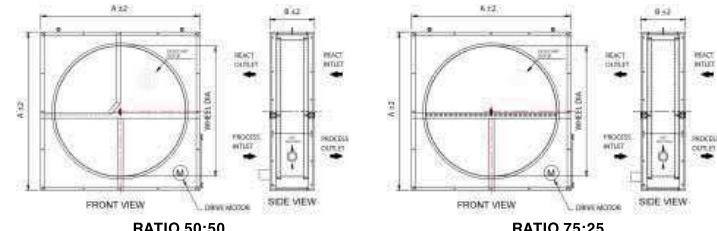
EDC 250-370 (Depth 100mm)

		Dimensions				Nominal Process Air Volume			Approx	Approx
S.No.	Model	Unit	Wheel Dia	A	B	Unit	Min@1.0 m/sec	Max@3.0 m/sec	Weight In Pounds	Weight In Kgs
1	EDC-250-100	inches	9.84	17.72	9.65	CFM	59	177	88	40
		mm	250	450	245	CMH	100	301		
2	EDC-300-100	inches	11.81	19.69	9.65	CFM	91	272	99	45
		mm	300	500	245	CMH	154	462		
3	EDC-370-100	inches	14.57	22.44	9.65	CFM	145	436	112	51
		mm	370	570	245	CMH	247	741		

Ratio 75:25

EDC 550-4250 (Rotor Depth 400mm)

S.No. Model		Diemensions				Nominal Process Air Volume			Approx Weight In Pounds	Approx Weight In Kgs
		Unit	Wheel Dia	A	B	Unit	Min@2.0 m/sec	Max@4.0 m/sec		
1	EDC-550-400	inches	21.65	29.53	21.46	CFM	669	1338	251	114
		mm	550	750	545	CMH	1137	2273		
2	EDC-770-400	inches	30.31	38.19	21.46	CFM	1369	2738	368	167
		mm	770	970	545	CMH	2327	4653		
3	EDC-965-400	inches	37.99	45.87	23.43	CFM	2146	4292	485	220
		mm	965	1165	595	CMH	3646	7293		
4	EDC-1220-400	inches	48.03	55.91	23.43	CFM	3452	6904	750	340
		mm	1220	1420	595	CMH	5866	11732		
5	EDC-1525-400	inches	60.04	66.93	23.43	CFM	5493	10987	1021	463
		mm	1525	1700	595	CMH	9334	18669		
6	EDC-1740-400	inches	68.50	75.20	23.43	CFM	7165	14329	1323	600
		mm	1740	1910	595	CMH	12174	24349		
7	EDC-1940-400	inches	76.38	83.27	23.43	CFM	8970	17939	1577	715
		mm	1940	2115	595	CMH	15242	30483		
8	EDC-2190-400	inches	86.22	93.11	23.43	CFM	11507	23014	1890	857
		mm	2190	2365	595	CMH	19553	39106		
9	EDC-2450-400	inches	96.46	104.33	24.61	CFM	14410	28820	2646	1200
		mm	2450	2650	625	CMH	24486	48972		
10	EDC-2650-400	inches	104.33	112.20	24.61	CFM	16924	33848	2983	1353
		mm	2650	2850	625	CMH	28758	57516		
11	EDC-2950-400	inches	116.14	124.02	24.61	CFM	21069	42139	3524	1598
		mm	2950	3150	625	CMH	35802	71604		
12	EDC-3550-400	inches	139.76	147.64	24.61	CFM	30577	61154	4838	2194
		mm	3550	3750	625	CMH	51958	103915		
13	EDC-3950-400	inches	155.51	163.39	24.61	CFM	38001	76002	5759	2612
		mm	3950	4150	625	CMH	64573	129145		
14	EDC-4250-400	inches	167.32	175.20	24.61	CFM	44093	88186	6505	2950
		mm	4250	4450	625	CMH	74925	149849		



*Because of our policy of continuous product improvement, specifications are subject to change without prior notice.



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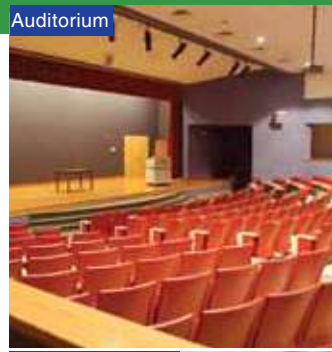
Innovative Air Solutions

G3MA PASSIVE DESICCANT DEHUMIDIFICATION WHEEL

Achieve Optimum
Dehumidification
Without energy usage



Auditorium



Conference Room



Shopping Mall



Retail Store



Banquet Hall



Health-Care



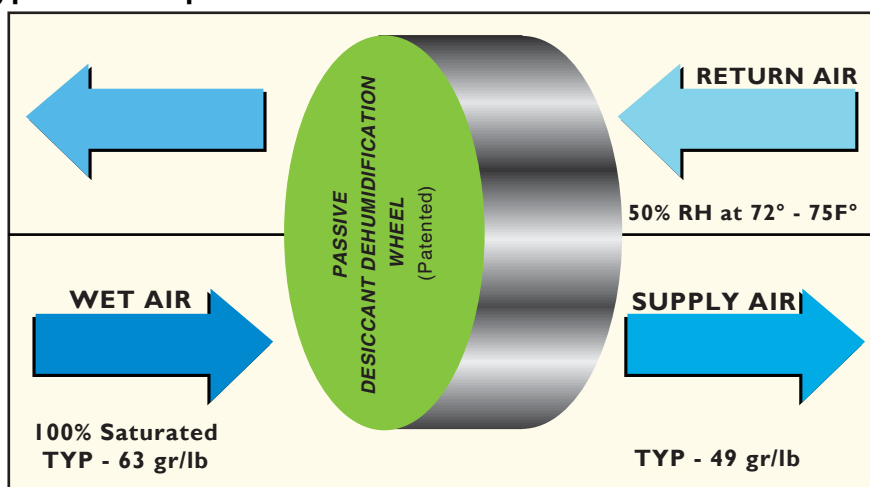
...THINK AFRESH www.drirotors.com

G3MA PASSIVE **DESICCANT DEHUMIDIFICATION WHEEL**

Regenerates desiccant without additional energy usage

The unique G3MA "Passive" Desiccant Dehumidification Wheel (Patented) has the ability to be regenerated with the 50% RH room return air allowing for substantial moisture removal through dehumidification of the fresh air being supplied to the room.

Typical Example



- Average removal around 14 gr/lb
- High performance "in-situ" synthesized desiccant (wheel)
- Fully water washable
- 100% non-flammable
- Removes moisture from a saturated air stream without heat / thermal regeneration
- ♦ No washing away of desiccant on continued exposure to saturated / wet air


. . . Green 'Air Conditioning' world-over

DRI has established a reputation around the world for technology innovations and industry leadership in Fresh Air Treatment Products and Solutions which help maintain healthy IAQ (Indoor Air Quality) and also meet today's environment challenges. DRI has played a pioneering role in innovating various new Fresh Air HVAC Systems. Our products are well suited to a wide array of applications in commercial spaces like hotels, hospitals, supermarkets, auditoriums and all other conditioned spaces as well as conditioned manufacturing & processing areas like pharmaceuticals, food, electronics etc.

Why DRI ?

- ✱ Largest global producer of Enthalpy wheels
- ✱ Integrated rotor manufacturing facility
- ✱ World class rotor (enthalpy as well as desiccant) Test Facility
- ✱ Ability to design flute geometry, depth and diameter to customer's requirement



- ✱ # 1 in performance . . . worldwide
- ✱ First choice of Engineers and consultants worldwide
- ✱ Certified wheels
- ✱ Has received 100% Success Rate from  for 7 consecutive years (for more details, visit www.ahrinet.org)

South Asia's **LARGEST** manufacturer of highly efficient & reliable Cooling Pads



DRI™ EGGCOOL®
Evaporative Cooling Pads
(ECPs)

- 5mm & 7mm flute available
- Any size & depth available
- Different flute angle combination available
- Customization for every requirement

Cooling with **EcoCool**® Evaporative Cooling Pads (ECPs)

How does Evaporative Cooling works ?

Water



Saturation effectiveness ranging from 50 to 98% can be achieved depending upon air velocity and depth of pad

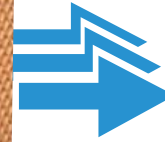
Cross Corrugated cellulose media treated with anti-rot, rigidifying and wetting resins

Hot Air



Unique structure minimizes buildup of dust & other dirt

Cool Air



Media cross corrugated to maximize the mixing of air & water and eliminated water carryover

Air flows horizontally while the re-circulating water flows vertically through the pad

Ring structure prevents sagging and clogging

Adiabatic Cooling

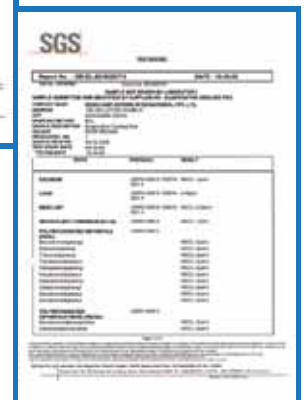
How does **EcoCool**® Cool ?

EcoCool Evaporative Cooling Pad uses the simple principle of Cooling by evaporation i.e. passing hot fresh air through the wet and cool surface to bring temperatures down.

The **EcoCool** Evaporative Cooling Pads are saturated with water, sprayed onto it through prefixed channels. Fresh Air, which is warm or hot, is blown (with the help of a fan) through the wet **EcoCool Pad**. The water evaporates when it comes in contact with the warm/hot air, thus cooling as well as humidifying the air entering the area.... shop floor and industrial premises, Green house, hatchery.... Ecofriendly and economic, **EcoCool** provides the ideal media to keep temperature low in industrial, commercial and residential areas, poultry farms, hatcheries, livestock areas, green houses and other agricultural areas.



**RoHS
Certified**



EcoCool® Evaporative Cooling Pads

Features & Benefits

- **Cellulose Base:** Engineered from cross sectional, specially treated fluted media capable of absorbing and retaining water to provide maximum cooling efficiency.
- **Rigid Structure:** The specially engineered fluted structure of EcoCool prevents sagging and resist clogging.
- **Energy Efficient:** Allows higher cooling with lower air volume; pads are over 80% efficient.
- **Longer Life:** EcoCool is synthesized with specialized anti-rot chemicals.
- **Effective Cooling:** Lowers temperatures at minimal energy cost.
- **Lowest Maintenance:** EcoCool has a unique structure that minimizes buildup of dust and other dirt on it.
- **More Effective:** EcoCool can handle treble the air velocity over the same area, compared to any other type of pads. Ecocool enjoys a higher efficiency due to specialised treatment.
- **Compatible:** EcoCool can be customized for special applications and is compatible with all air handling and conditioning systems.
- **Retrofits easily.**

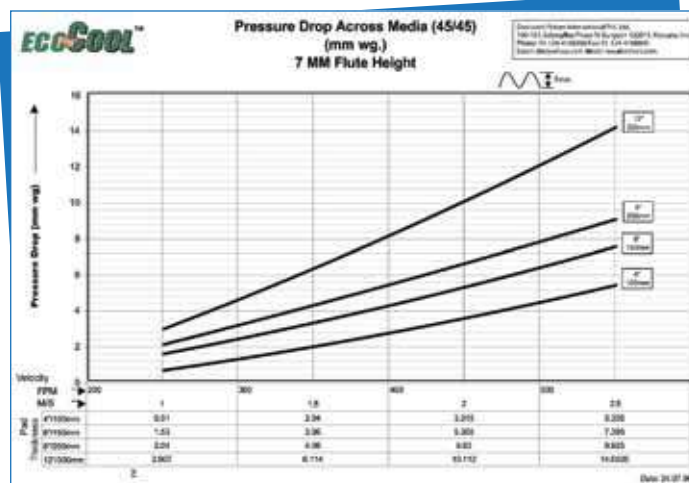
EcoCool® is ideal for:

Human Comfort

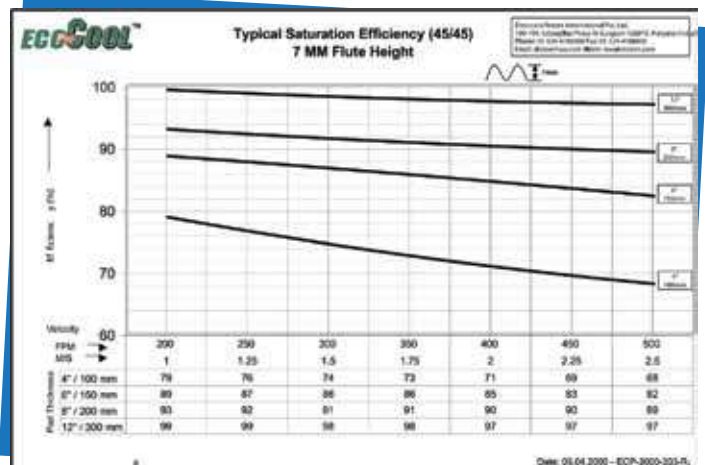
- Office Complexes
- Manufacturing Facilities
- Canteen and Banquet Halls
- Gymnasiums and Sports Complexes
- Warehouses

Process / Application Need

- Textile Humidification
- Poultry
- Green House
- Vegetables and Fruit Storage
- Gas Turbine Inlet Air Cooling
- Paint Shop
- Generator Rooms
- Air Handling Units



Pressure Drop of Media



Typical Saturation Efficiency

Help Your Poultry Farm Produce Golden Eggs

Why Evaporative Cooling?

Thermal conditions, air quality, lighting, noise and crowding are important in designing structure for animals. Thermal environment influences heat dissipation by animals. Air quality, noise, ion concentrations, and crowding can affect the health and/or productivity of animals.



Animal performance (growth, egg or milk production, wool growth, and reproduction) and their conversion of feed to useful products are closely tied to the thermal environment.

The optimal thermal environment-in terms of an effective temperature that integrates the effects of dry-bulb temperature, humidity, air movement, and radiation - is less important to the designer than the range of conditions that provides acceptable animal performance, efficiency, well-being, and economic return for a given species. Research has found that the zone of nominal losses corresponds to the welfare plateau (i.e. welfare is enhanced by maintaining environmental conditions within the zone of nominal losses). Milk and egg production by mature animals also shows an optionzal thermal environment zone, or zone of nominal losses.

Importance of maintaining comfortable environment in a hatchery/poultry farm:

Poultry, dairy and other related livestock/breeding farming have assumed the status of an industry in terms of both technology and competitiveness. Thus, all factors, which affect the production economy, need careful monitoring and controlling. Temperature, rather high temperature, has been found to be a major factor which has negative effect on poultry and dairy yields. In tropical and subtropical climates the world over, the production rate of poultry and dairy has been found to suffer due to high temperatures.

Recommended design conditions:

It is important to control conditions, to between 19-26°C(66-79°F) and 60 to 75% RH, in poultry and dairy breeding / rearing areas. Temperature over 25°C (77°F) have been generally found to be harmful. Thus, cooling in summers becomes imperative, as apart from the natural heat of the summer sun, heat from the birds and animals add up to the heat load. Ambient conditions, size and construction of building are the key factors in designing a suitable evaporative cooling system for the poultry farm.



Make Your Green Houses More Profitable

Why Evaporative Cooling?

Thermal environment influences chemical process rates in plants. Thermal conditions, air quality, noise and crowding can affect the productivity of plants.

Most agronomically important plant crops are produced outdoors in favourable climates and seasons. Greenhouses and other indoor facilities are used for the out of seasons production of horticulture crops for the both commercial sales and research purposes, and for producing food, floriculture and other crops in conditions that permit the highest quality by buffering the crops from the unpredictability of weather. The industry that produces crops in greenhouses may be termed controlled environment agriculture (CEA).

Mechanical ventilation evaporative cooling, centralised heating systems, movable insulation, dioxide enrichment, and supplemental lighting have extended the use of greenhouse to year round cropping in a relatively large scale.

The horticulture industry can be segmented into two industries (floral and fauna) and hydroponics. These industries are heading for a big boom over the entire world.



Need of environmental control in a green house

Solar radiation and transpiration of plants are two main elements, which add to the heat load from the sun in a green house to create an unwanted climate, which is harmful for plants. Cooling of green house is necessary when outside temperature goes beyond 24°C (75°F) and also when cool crops are to be grown. Temperature inside a greenhouse with open ventilator can be as high as 11°C (52°F) higher than the outside ambient temperature. The detrimental effects of high temperature are typified by loss of stem strength, reducing of flower size, delay of flowering and even bud abortion. Cooling can be done through Fan and pad System, Fog Evaporative System, Fan Tube Ventilation, Opening of vents, shading in and/or outside of the greenhouse and/or painting of the glazing materials. Now-a-days fan and pad cooling system is most popular around the world for greenhouse cooling. Evaporative cooling has been found to be the best solution to keep temperatures low in green houses. Of course, evaporative cooling in green houses is optimised by use of Ecocool Cooling/Humidifying pads.

Benefits with EcoCool Pads

DRI EcoCool Pads provide the ideal media to keep temperatures low in Green Houses and other agricultural areas. They use the simple principle of Evaporative Cooling i.e. passing fresh air through the wet surface to bring temperatures down.

- Protection of plants from precipitation, excess solar radiation and temperature extremes, etc.
- Off-season nursery can be raised.
- Crops can be grown throughout the year.
- Crops are of very good quality and give good yield.
- Ideal for Hydroponic Green Houses.
- Creates ideal environment for growing nursery plants, specially crops, floriculture and seed farming.



Give your Coolers a winning edge

with



Evaporative Cooling Pads

an Ideal Choice



+ RESIDENTIAL / INDUSTRIAL AIR COOLER



Performance Chart

	Outside Design Conditions (Summer)			Condition of air leaving the media at 80% saturating efficiency	
City	DBT°F	WBT°F	RH%	DBT°F	WBT°F
Delhi	110	75	20	82	75
Hyderabad	106	78	28	84	78
Jaipur	110	75	20	82	75
Mumbai	95	83	60	85	83
Pune	104	76	28	82	76
Bangalore	96	78	45	82	78

* 80% Evaporative Cooling efficiency (saturation efficiency) is achieved only with a minimum of 8" (200mm) thick pad.

Air Coolers for Direct cooling are an extension to the traditional fan pad systems. They provide large scale powerful cooling in factories, indoor spaces, rooms and outdoor areas. Such systems are used as a cost efficient cooling solution in Dry Climate Region.

Process and Application Need



Poultry



Textile Humidification



Restaurants



RoHS
compliant



Greenhouse



Auto Industry



Vegetable and Fruit Storage

EcoCool® Evaporative Cooling Pads (ECPs)

12 Reasons why **EcoCool®** is your best buy



Structural Strength:

The **EcoCool** are treated with stiffening and rot-resisting agents for structural strength. Its structural strength allows it to stand alone without any support thus, saving on the cost of support material.



High Efficiency:

Cross corrugated and resin treated media allows better wettability and more effective cooling even at lower air volume.



Durable:

EcoCool boast of a specially engineered rigid structure with anti-rot chemicals to prevent sagging, resist clogging and retard the growth of bacteria, assuring long life.



No Edge Build-up:

EcoCool have smooth/fine edges, which help to lessen building of dust particles thus enhancing the life span of the pads. It is easy to maintained, wash & scrub.



Gluing:

The cross sections of the **EcoCool** are glued on with special glue. The glue does not determinate even after staying in contact with water for years.



Customised:

EcoCool Pads can be tailor made to suit your specific requirements.



Economical:

EcoCool Pads have very low running cost, hence more profits.



Exported World Over:

With their superior quality, **EcoCool** are the preferred choice of OEMs in Australia, West Asia, USA... .



Certified:

RoHS Compliant



Technical Support:

To provide customised solution for every application.



Quality:

ISO 9001:2015 Certification
Conform to maintain the quality

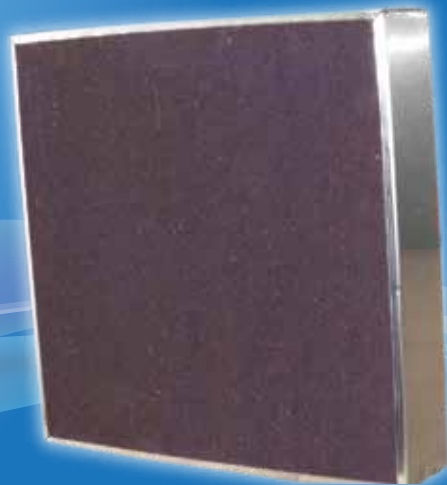


Made with pride in India

Formed
HONEYCOMB
CHEMICAL FILTER

The **Future** of
GAS PHASE FILTRATION
is HERE

 **DRI™ ECC SCRUB™**
GAS PHASE FILTRATION



Raising the Bar!

It took us an evolution to move from bronze to iron to steel age. A similar breakthrough took us ahead from Granular to Extruded Carbon to Formed Honeycomb Media in Gas Phase Filtration technology.

This next-generation revolutionary new medium is a building block of the future of Gas Phase Filtration and is applicable in both industrial and commercial environments. It brings with itself the advantage of 100% efficiency.

It is a Game Changer

Formed v/s Extruded Honeycomb

Extruded Honeycomb Chemical Filters are mainly limited to active carbon and are fragile. They are limited in size, and also in the amount of impregnates that can be added to the carbon honeycomb, and further limited to the impregnates that can be put onto the honeycomb e.g. carbon honeycombs cannot be impregnated with permanganates. On the other hand, DRI macro-porous desiccant formed honeycomb matrix has a high bulk density, very high structural strength and adsorption capacity, and it can be impregnated with permanganates, hydroxides, phosphoric acid, Thiosulphate and Bycarbonate, and many more and those impregnates are often 3 to 5 times of what can be put on an extruded carbon honeycomb. Further, the DRI Chemical honeycomb filter can be run from 400 to 600 FPM with limited pressure drop. All of above providing a very high capacity chemical filter with a much longer mean time between replacement (MTBR) of an equivalent size extruded carbon honeycomb.

The **DRI Chemical Honeycomb Filter** comprises of macro-porous desiccant based honeycomb matrix impregnated with a choice of oxidizing agents, alkaline solutions and is also made bactericidal by treating the same with antibacterial agents. This new honeycomb matrix technology not only reduces the size of chemical filtration equipment, but also increases its efficiency and life while lowering energy bills. It allows sizing the chemical filter from 400 to 600 FPM face velocity, shrinking dramatically the size of the housing/unit footprint.

Formed HONEYCOMB

CHEMICAL FILTER (Patent Pending)

The **Future** of **GAS PHASE FILTRATION** is HERE

History

Granular

- 80 fpm

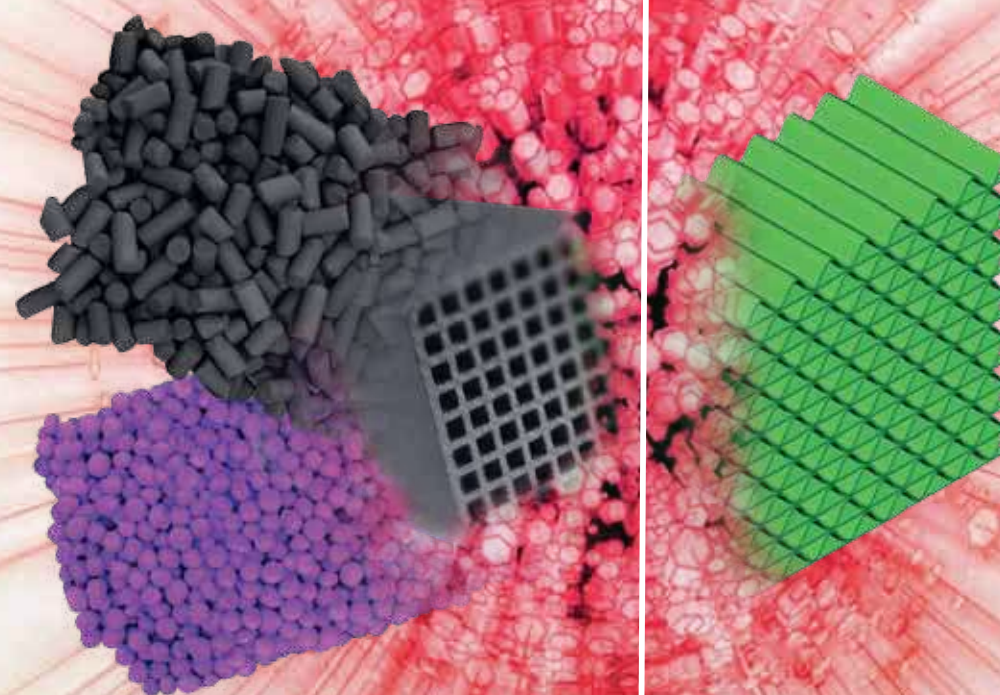
Extruded Carbon Filter

- 125 fpm

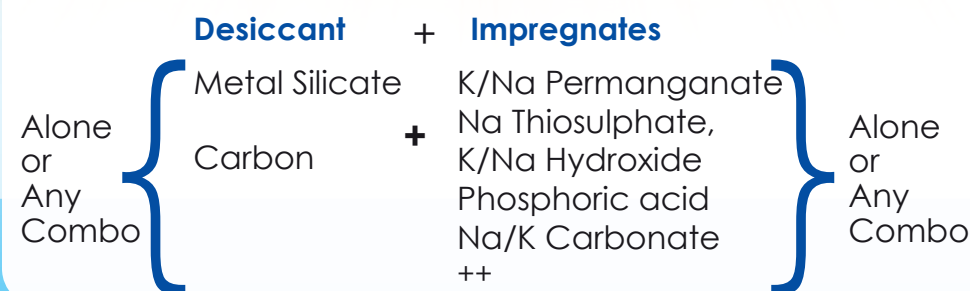
Future

Formed Honeycomb

- 500 fpm



DRI Honeycomb Combinations



DRI Desiccant Formed Honeycomb Chemical Filter Fits All Applications

This new technology can be used both in commercial and industrial applications and is ideal for human and hardware health. It removes contaminants and eliminates odor and downtime by removing toxic/corrosive gases through the process of adsorption and chemisorption.

Limitations of Granular/Extruded Carbon Honeycomb Filters

- Highly Fragile Powdering/Dusting/Attrition (Granular)
- Limited Size
- Very Large Non Active Clay Component
- Low Percentage (%) of Impregnate(s) Loading
- Limited Bulk Density
- Operating Range 125 to 250 FPM max
- Requires Final Dusting Filters & Added Pressure Drop
- Requires High Pressure Fans and Motors
- Requires Special Filter Housings

Why DRI Formed Honeycomb Filters?

- Bulk Density > 40 Lb / cu ft
- Honeycomb Monolith Media Available in 1" to 12" Depths in Standard and Custom Filter Sizes
- Air Flow Range is 400 to 600 FPM
- 100 % Efficiency
- Tested by Most Respectable RTI Lab of USA
- Longer Life (High MTBR)
- Tested in Accordance to ASHRAE 145.2P and ISO 11155-2
- Only Honeycomb Filter with Permanganate
- Very High Capacity
- Very Low Pressure Drop
- Available in Combination with Various Impregnates
- Backed by DRI's Cutting Edge State-of-the-Art R&D and Testing Facilities

Ideal for :

Fresh Air intake which are situated near :

- Sewage line
- Sewage treatment Plant
- Dence Traffic
- Landfill Sites
- Sea Shores (Creeks)
- Dump Yards
- Lab/Factory exhausting Harmful Gases



Desiccant Rotors International . . . DRI, an ISO certified company is a global provider of components, products and systems for energy recovery, IAQ, fresh air treatment, evaporative cooling, humidification, RH control and green buildings.

DRI has a fully integrated rotor manufacturing facility with an in-house capability of coating, synthesizing, winding, metal working and surface finishing and a world class test facility for performance evaluation of Enthalpy Wheels.

Applications vis-à-vis Types of VOCs

Industry	Application Areas	VOCs Treated
Coating (Tapes)	Coating process	Ketones (MIBK, MEK, Cyclohexanone, etc.)
Chemicals (Bio-Gas Plants)	Oil refinery, Reactors	Alcohols, Aromatic compounds
Automobile	Paint booth	Alcohols, Xylene, Esters, Toluene
Printing	Film, Can, Packaging Dryer	Alcohols, Toluene, Xylene, Esters
Electronics	Semiconductor cleaning units	Ketones, Alcohols
Plastics	Polyethylene (PE) material processing (extrusion)	Styrene, Esters

VOC Removal Efficiency of EcoVocTM for typical VOCs

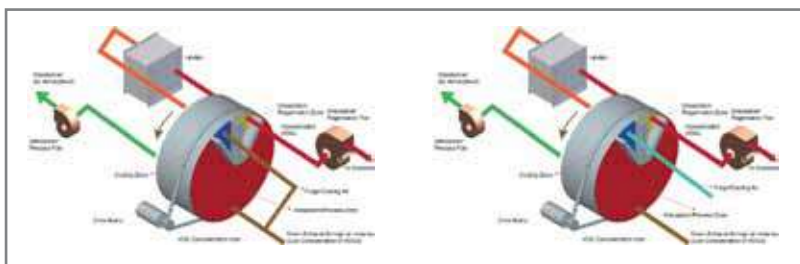
	VOC	EcoV1	EcoV2	EcoV3
Alcohols	Butanol			
	Ethanol			
	Methanol			
	IPA			
Aromatic compounds	Xylene			
	Tri methyl benzene			
	Toluene			
	Styrene			
Esters	Butyl acetate			
	PGMEA			
	Ethyl acetate			
Ketones	MEK			
	MIBK			
	Acetone			
	Cyclohexanone			
Others	NMP			
	DCM			
	Naphtha			

VOC removal efficiency - ■ >95% Very Good ■ <85% Good ■ <65% Average ■ <50% Poor

How does the DRI EcoVocTM concentrator work?

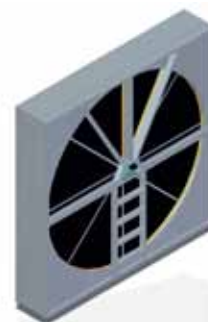
In the process, the product adsorb the VOCs onto a continuously rotating Zeolite rotor. The rotor is segregated into 3 parts - adsorption zone, cooling zone and desorption zone. The VOC laden air passes through the adsorption sector of the rotor where the VOC's are removed from the process stream and adsorbed onto the Zeolite rotor. The process exhaust exits the adsorbent section without most of the VOC and is exhausted to the atmosphere.

- **Adsorption / process zone:** The exhaust air from the process room having low concentration VOC and high volumes, is passed through rotating Zeolite rotor. The zeolite rotor adsorbs the VOCs and other pollutants in adsorption/process zone.
- **Cooling zone:** As we know, the desiccant performs better when cooler. The rotor is cooled down in the cooling zone in order to maintain the adsorption capacity and in the process heat is recover to save regeneration energy.
- **Desorption/Regeneration zone:** The rotor is regenerated on a continuous basis as it moves from adsorption to desorption zone. The VOCs are desorbed by hot air (180-200 Deg C) and in the process the leaving air is concentrated with VOCs. The concentration ratio can as high as 30 times. Generally the concentration ratio is around 10-25 times.



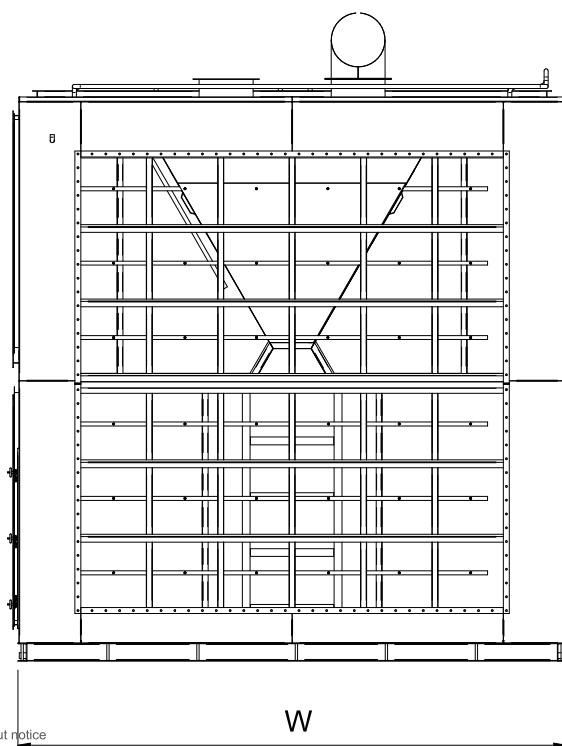
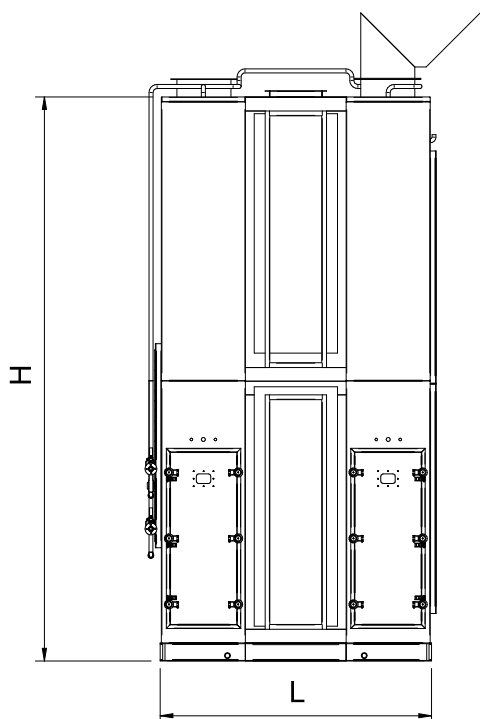
EcoVoc™ Cassette

EcoV Series Model No.	Process Air Flow		Dimensions (in mm)			Estimated Weight (in kg)
	CMH	CFM	Length (L)	Depth (D)	Height (H)	
1220	7400	4355	840	1550	1650	850
1525	11500	6768	840	1850	1950	1050
1740	15100	8886	840	2050	2150	1250
1940	18750	11034	840	2250	2350	1365
2190	24000	14124	840	2500	2600	2100
2450	30000	17655	840	2800	2925	2520
2650	35000	20598	840	3000	3125	2950
2950	43500	25600	840	3300	3325	3465
3250	52500	30896	840	3600	3850	3780
3550	62800	36958	840	3900	4150	4520
3850	74000	43549	840	4200	4450	5350
4200	88000	51788	840	4550	4800	6000



EcoVoc™ Cassette with Pre & Post Boxes

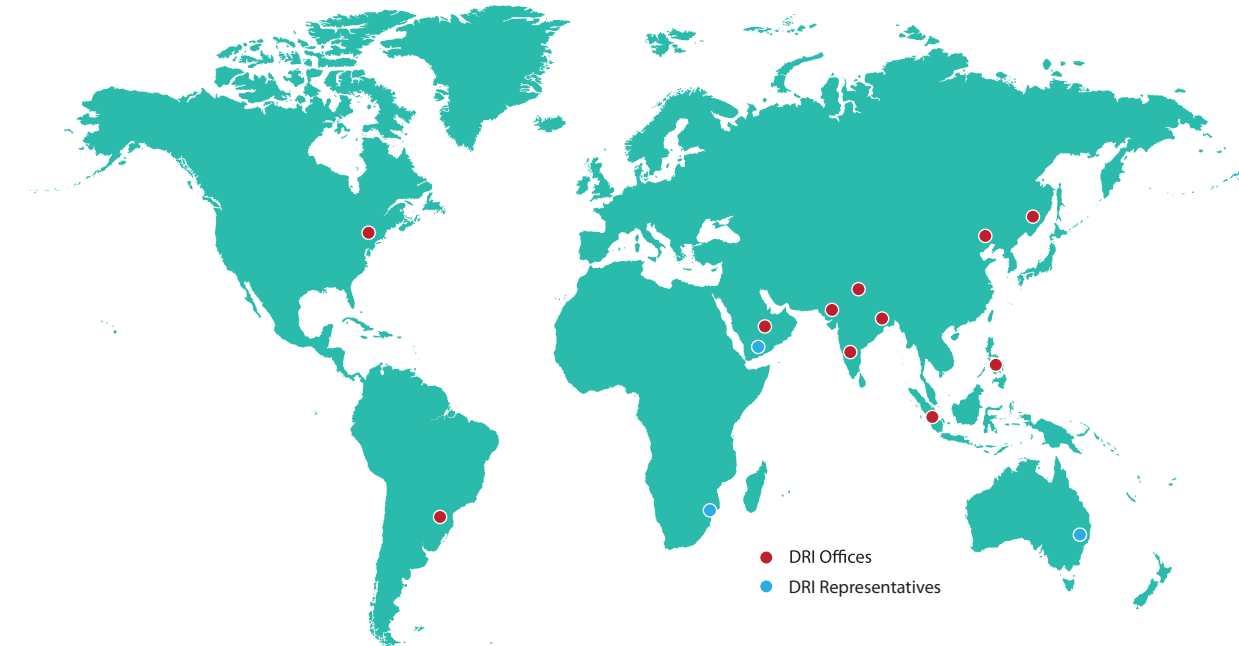
EcoV Series Model No.	Process Air Flow		Dimensions (in mm)			Estimated Weight (in kg)
	CMH	CFM	Length (L)	Depth (D)	Height (H)	
1220	7400	4355	2100	1550	1650	1200
1525	11500	6768	2100	1850	1950	1500
1740	15100	8886	2100	2050	2150	1600
1940	18750	11034	2100	2250	2350	2100
2190	24000	14124	2100	2500	2600	2600
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2650	35000	20598	2100	3000	3125	3700
2950	43500	25600	2100	3300	3325	4300
3250	52500	30896	2100	3600	3850	5300
3550	62800	36958	2100	3900	4150	5900
3850	74000	43549	2100	4200	4450	7100
4200	88000	51788	2100	4550	4800	7800



All data subject to change without notice

Worldwide Presence

DRI™ Never too far from you !



- ✓ USA
- ✓ Switzerland
- ✓ UAE
- ✓ India
- ✓ Korea
- ✓ Canada
- ✓ Nigeria
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Innovation is life

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