

All Wheels Recover Energy Some do it better . . .

■ More Fresh Air ■ Better Humidity Control ■ More Energy Recovery – thus, better **IAQ** at lower Energy cost



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ECOFRESH[®]
TOTAL ENERGY RECOVERY WHEEL
SILICA GEL COATED

EFFICIENT
CERTIFIED PERFORMANCE



500 mm to 2000 mm

2200 mm & above

All Wheels recover



ECO FRESH[®] Silica Gel Coat TOTAL ENERGY RECOVERY WHEEL SILICA GEL COATED



Hardened edges :

Wheel edges hardened to suit marine/coastal application needs.



Fire resistant :

Neither combustible nor supports combustion.



Innovative manufacturing design :

- Segmented and non-segmented options.



Industry's highest recovery/performance :

72% nominal at 3.5 m/s (700 FPM) and 156 Pa pressure drop. Nearly equal sensible and latent recovery.



In-built purge sector eliminates cross contamination :

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

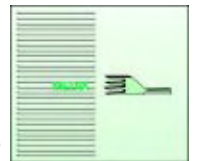


Purge section and labyrinth sealing system limit cross contamination.



Non contact labyrinth seal :

- No wear and tear.
- Effective sealing.
- Long life.
- Brush seal as option also available.



Retrofit :

Easy retrofit options.



Frost Protection :

Wheel rotation speed control helps to limit frost formation by keeping the exhaust air temperature above the dew point.



Wide Range :

- Sensible as well as Enthalpy wheels.
- Customized Flute height and Rotor depth options.
- Cassette as well as Rotor options.
- Standard and Customized options.
- 500 mm to 5000 mm.



Eurovent Certified : EcoFresh Sorption/Enthalpy Wheels SG Series, 200mm deep are Eurovent certified. The Eurovent Certification confirm the high quality and performance standards to which DRI is committed.



Certified for Zero Microbial Growth : EcoFresh Wheels are specially treated for prevention of any microbial growth on its surface and are certified by Shriram Labs. As per the DIN EN ISO 846 standard, showing 0% fungi and bacterial growth.



Certified for Zero Flame Spread : DRI conforms to NFPA - 90A certification for 0% Flame spread classification and is tested in accordance with NFPA 225 and ASTM - E84-95 *Standard Test Method for Surface Burning Characteristics of Materials*. Metallic construction, eliminates concerns about combustibility and flammability.



High Performance :

The **EcoFresh** SG Series Sorption/Enthalpy Wheels are coated with **EcoSorb** 100 special grade desiccant on aluminum foil substrate for assured high performance. They are ideal where there is a need for high total (Latent & Sensible) recovery.



Structural rigidity :

State-of-the-art winding technology and adhesives give **EcoFresh** Sorption/Enthalpy Wheels a high structural strength.



Highly Polished Surface :

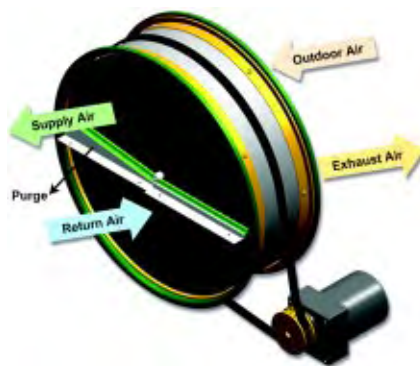
Vertical run out less than 1 mm per 1000 mm resulting in extremely low leakage across the seals.

er Energy – Some do it better !!

ted Heat Recovery Wheels

The **EcoFresh** Heat Recovery Wheel, recovers total energy (sensible as well as latent) to meet all the requirements of Indoor Air Quality (IAQ), humidity control and energy savings. Incorporation of **EcoFresh** Heat Wheels into the air-conditioning system means more outdoor air at lower energy cost (reduced chiller and boiler/exhaust load).

EcoFresh Heat Wheels use custom made metallic honey comb matrix coated with **EcoSorb** Silica gel dessicant. In a typical installation, the wheel is positioned in duct so that it is divided into two half moon sections. Stale air from the conditioned space is exhausted through one half while outdoor air is drawn through the other half in a counter flow pattern. At the same time, the wheel is rotated slowly at 15-25 rpm. Sensible heat is transferred as the metallic substrate rotates, picking up sensible load from one air stream and releasing it to the other. Similarly, the latent heat is transferred as the desiccant picks up moisture from the moist air stream and releases to the drier air stream.



Benefits of . . . Beyond Payback

Better • Humidity Control • Energy Recovery



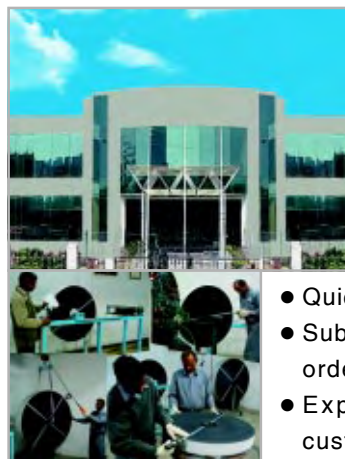
Thus, better and enhanced IAQ at lower Energy costs

- 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%.



Global Manufacturer of Fluted Media Technology

State-of-the-art Facilities



Fully integrated manufacturing facility for :

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

World-class Test Facility

The first and only test facility of its kind in the entire Asia.

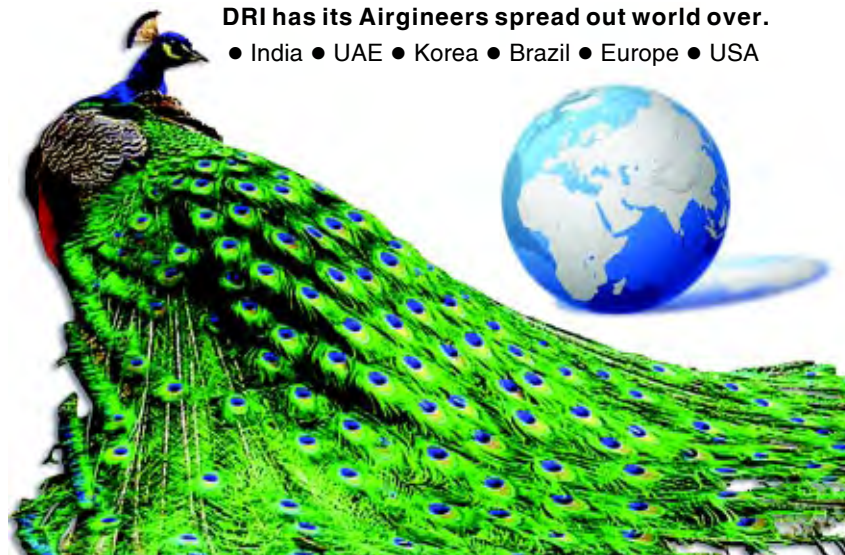


has set up a World-class Test Facility for performance evaluation of Enthalpy Wheels.

Worldwide Network

DRI has its Airingers spread out world over.

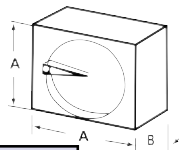
- India ● UAE ● Korea ● Brazil ● Europe ● USA





EcoFresh Heat Recovery Wheel - Performance Data

HRW Series (SG-200-1.9 mm)



Velocity	M/S	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0	5.5
	FPM	200	300	400	500	600	700	800	900	1000	1100
Sensible	Efficiency in %	83	80	78	75	73	71	69	66	64	61
Latent (Winter Heating)		84	82	79	77	75	73	71	68	65	62
Latent (Summer Cooling)		82	80	77	75	73	70	67	64	61	58
Total (Winter Heating)		84	81	78	76	74	72	70	67	64	61
Total (Summer Cooling)		83	80	78	75	73	70	68	65	62	59
Pressure Drop	Pa	74	85	102	116	136	156	178	201	230	257
	in. w.c	0.29	0.33	0.40	0.46	0.54	0.61	0.70	0.79	0.91	1.01
Model Number	Air Volume										
HRW 500	CMH	319	479	639	799	958	1118	1278	1438	1597	1757
	CFM	188	282	376	470	564	658	752	846	940	1034
HRW 600	CMH	477	716	955	1194	1432	1671	1910	2149	2387	2626
	CFM	281	422	562	703	843	984	1124	1265	1405	1546
HRW 700	CMH	664	997	1329	1661	1993	2325	2658	2990	3322	3654
	CFM	391	587	782	978	1173	1369	1564	1760	1955	2151
HRW 800	CMH	880	1320	1760	2200	2640	3080	3519	3959	4399	4839
	CFM	518	777	1036	1295	1553	1812	2071	2330	2589	2848
HRW 900	CMH	1124	1686	2248	2810	3372	3934	4495	5057	5619	6181
	CFM	661	992	1323	1654	1984	2315	2646	2976	3307	3638
HRW 1000	CMH	1397	2095	2794	3492	4190	4889	5587	6285	6984	7682
	CFM	822	1233	1644	2055	2466	2877	3288	3699	4110	4521
HRW 1100	CMH	1699	2548	3397	4246	5096	5945	6794	7644	8493	9342
	CFM	1000	1499	1999	2499	2999	3499	3998	4498	4998	5498
HRW 1200	CMH	2029	3043	4058	5072	6087	7101	8116	9130	10144	11159
	CFM	1194	1791	2388	2985	3582	4179	4776	5373	5970	6567
HRW 1300	CMH	2323	3484	4646	5807	6969	8130	9291	10453	11614	12776
	CFM	1367	2051	2734	3418	4101	4785	5468	6152	6835	7519
HRW 1400	CMH	2711	4066	5421	6777	8132	9487	10842	12198	13553	14908
	CFM	1595	2393	3190	3988	4786	5583	6381	7178	7976	8774
HRW 1500	CMH	3127	4691	6255	7818	9382	10945	12509	14073	15636	17200
	CFM	1840	2761	3681	4601	5521	6441	7362	8282	9202	10122
HRW 1600	CMH	3573	5359	7146	8932	10718	12505	14291	16078	17864	19650
	CFM	2103	3154	4205	5257	6308	7359	8410	9462	10513	11564
HRW 1700	CMH	4047	6070	8093	10116	12140	14163	16186	18210	20233	22256
	CFM	2381	3572	4763	5954	7144	8335	9526	10716	11907	13098
HRW 1800	CMH	4550	6824	9099	11374	13649	15923	18198	20473	22748	25022
	CFM	2677	4016	5355	6694	8032	9371	10710	12048	13387	14726
HRW 1900	CMH	5081	7622	10162	12703	15243	17784	20324	22865	25405	27946
	CFM	2990	4485	5980	7476	8971	10466	11961	13456	14951	16446
HRW 2000	CMH	5641	8462	11282	14103	16923	19744	22564	25385	28206	31026
	CFM	3320	4980	6640	8300	9959	11619	13279	14939	16599	18259
HRW 2200	CMH	6815	10222	13629	17037	20444	23851	27258	30666	34073	37480
	CFM	4010	6016	8021	10026	12031	14036	16042	18047	20052	22057
HRW 2400	CMH	8136	12204	16272	20340	24408	28476	32544	36612	40680	44748
	CFM	4788	7182	9576	11970	14364	16758	19152	21546	23940	26334
HRW 2600	CMH	9572	14359	19145	23931	28717	33503	38290	43076	47862	52649
	CFM	5633	8450	11267	14084	16900	19717	22534	25350	28167	30984
HRW 2800	CMH	11124	16686	22248	27810	33372	38934	44495	50057	55619	61181
	CFM	6546	9820	13093	16366	19639	22912	26186	29459	32732	36005
HRW 3000	CMH	12790	19185	25580	31975	38370	44766	51161	57556	63951	70346
	CFM	7527	11291	15054	18818	22581	26345	30108	33872	37635	41399
HRW 3200	CMH	14572	21857	29143	36429	43715	51001	58286	65572	72858	80144
	CFM	8575	12863	17151	21439	25726	30014	34302	38589	42877	47165
HRW 3400	CMH	16468	24701	32935	41169	49403	57637	65871	74104	82338	90572
	CFM	9691	14537	19382	24228	29074	33919	38765	43610	48456	53302
HRW 3600	CMH	18479	27718	36958	46197	55437	64676	73915	83155	92394	101634
	CFM	10875	16312	21750	27187	32624	38062	43499	48937	54374	59811
HRW 3800	CMH	20605	30907	41210	51512	61815	72117	82420	92722	103025	113327
	CFM	12126	18189	24252	30315	36378	42441	48504	54567	60630	66693
HRW 4000	CMH	22846	34268	45691	57114	68537	79959	91382	102805	114228	125650
	CFM	13445	20167	26889	33612	40334	47056	53778	60501	67223	73945
HRW 4200	CMH	25201	37802	50403	63003	75604	88205	100805	113406	126007	138607
	CFM	14831	22247	29662	37078	44493	51909	59324	66740	74155	81571
HRW 4400	CMH	27672	41509	55345	69181	83017	96853	110690	124526	138362	152198
	CFM	16285	24428	32570	40713	48856	56998	65141	73283	81426	89569
HRW 4600	CMH	30258	45387	60516	75645	90774	105903	121032	136161	151290	166419
	CFM	17807	26710	35614	44517	53420	62324	71227	80131	89034	97937
HRW 4800	CMH	32958	49438	65917	82396	98875	115354	131833	148312	164792	181271
	CFM	19396	29094	38792	48490	58188	67886	77584	87282	96980	106678
HRW 5000	CMH	35774	53661	71548	89435	107322	125209	143096	160983	178870	196757
	CFM	21053	31580	42106	52633	63159	73686	84212	94739	105265	115792

Height and Width "A" mm Inches	Depth in Flow Direction "B" mm Inches	Net Weight Kg. Pounds
700	295	56
27.6	11.6	123
800	295	61
31.5	11.6	134
850	295	69
33.5	11.6	152
950	295	77
37.4	11.6	170
1030	295	87
40.6	11.6	192
1130	295	94
44.5	11.6	207
1230	295	133
48.4	11.6	293
1330	295	145
52.4	11.6	320
1430	295	169
56.3	11.6	372
1530	295	185
60.2	11.6	408
1630	295	201
64.2	11.6	443
1730	325	234
68.1	12.8	516
1830	325	271
72.0	12.8	597
1930	325	289
76.0	12.8	637
2030	325	313
79.9	12.8	690
2130	325	329
83.9	12.8	725
2400	460	690
94.5	18.1	1521
2600	460	758
102.4	18.1	1671
2800	460	828
110.2	18.1	1825
3000	460	900
118.1	18.1	1984
3200	460	975
126.0	18.1	2149
3400	514	1278
133.9	20.2	2817
3600	514	1373
141.7	20.2	3026
3800	514	1471
149.6	20.2	3242
4000	514	1571
157.5	20.2	3462
4200	514	1674
165.4	20.2	3689
4400	514	2298
173.2	20.2	5065
4600	514	2429
181.1	20.2	5354
4800	514	2563
189.0	20.2	5649
5000	514	2700
196.9	20.2	5951
5200	514	2823
204.7	20.2	6222

Note: (1) 2200 mm 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.

DRI™ DESICCANT ROTORS INTERNATIONAL Pvt. Ltd.
 (Formerly Arctic India Engineering Pvt. Ltd.)

Visit us at : www.drirotors.com

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