

TECHNICAL SPECIFICATION

Bulletin : DRI-HRW-009-10
Effective : April 1st, 2016
Superseds : DRI-HRW-009-9
Dated : December 24th 2016



HEAT RECOVERY WHEEL HRW SERIES (MS-200-1.9mm)

HEAT RECOVERY WHEEL (HRW-400 to 5000) COMES WITH **ECO-FRESH** WHEEL/ROTOR
ALL HRW SERIES UNIT HAVE THE FOLLOWING OUTSTANDING FEATURES

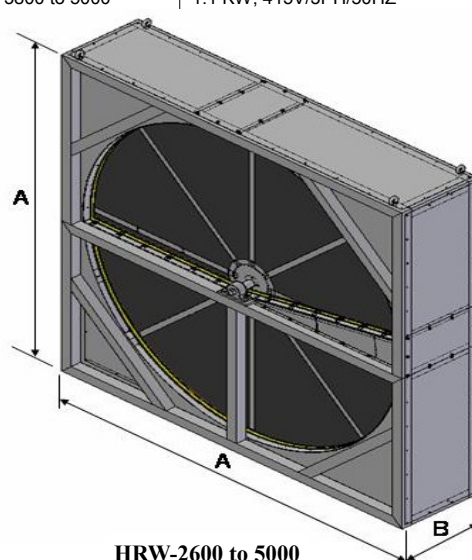
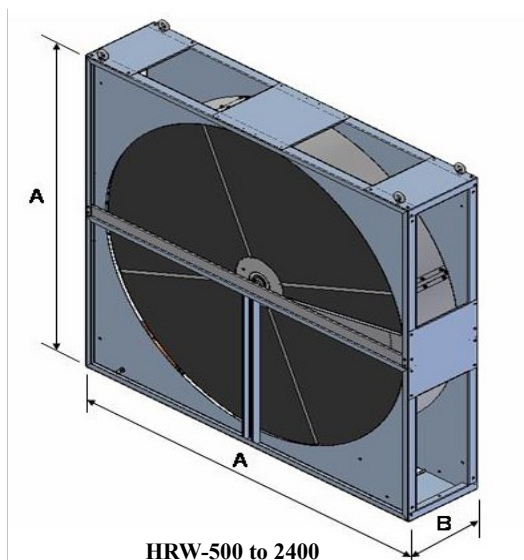
- High efficiency and reliability**
 - * Galvenised steel sheet casing (upto 2200mm)
 - * Optional HRW-2200 & 2400 are available in Galvenised Steel (MonoG).
 - * Epoxy painted structural steel frame & Powder coated panel/casing (above 2600mm).
 - * Molecular sieve coated aluminium "EcoFresh" total energy recovery wheel.
 - * Equal sensible and latent recovery.
 - * Designed for low rotor speed around 20-25 rpm.
 - * The rotor is made of alternate flat and corrugated aluminium foil of very uniform pitch and height.
- * The media is cleanable with compressed air.
- * Highest efficiency wheel in its category.
- * The surface of the wheel is highly polished to ensure that the vertical runout does not exceed $\pm 1\text{mm}$ for every 1 meter diameter.
- * Rotor depth 200mm.
- * The face and radial seals are brush seal (upto 2200mm)
- * The face and radial seals are four (4) pass non contact labyrinth seals (above 2600mm) for effective sealing between the two air streams.
- * Rotor face edges are hardend which ensures long life of the media.

WHEEL CONSTRUCTION

MONOLITHIC	HRW-400 to 2400
HALF MOON	HRW-2600 to 3800
SEGMENTED	HRW-4000 to 5000

POWER REQUIREMENT

HRW-500 to 1100	0.09/0.10 KW, 415V/3PH/50HZ
HRW-1200 to 1600	0.18/0.20 KW, 415V/3PH/50HZ
HRW-1700 to 2200	0.37 KW, 415V/3PH/50HZ
HRW-2400_MonoG	0.55 KW, 415V/3PH/50HZ
HRW-2600 to 3600	0.75 KW, 415V/3PH/50HZ
HRW-3800 to 5000	1.1 KW, 415V/3PH/50HZ



OPTIONS AVAILABLE

SENSIBLE ONLY	AVAILABLE
VARIABLE SPEED DRIVE	AVAILABLE ON REQUEST
SINGLE PHASE DRIVE	AVAILABLE ON REQUEST
CUSTOMISED FLUTE HEIGHT	AVAILABLE ON REQUEST
HORIZONTAL MOUNTING	CONSULT FACTORY
ARRANGEMENT CODE	1-8 (REFER PAGE 4 of 4)
SEGMENTED WHEELS	AVAILABLE ON REQUEST

ALL DATA SUBJECT TO CHANGE WITHOUT NOTICE

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
	FPM	200	300	400	500	600	700	800	900	1000
Sensible	Effectiveness (Balance) In %	83	80	78	75	73	71	69	66	64
Latent (Winter Heating)		80	77	75	72	69	66	63	60	58
Latent (Summer Cooling)		80	77	75	72	69	66	63	60	58
Total (Winter Heating)		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-400-MS 200	CMH	179	269	359	448	510	628	718	807	897
	CFM	106	158	211	264	300	369	422	475	528
HRW-500-MS 200	CMH	273	409	546	682	765	955	1092	1228	1365
	CFM	161	241	321	402	450	562	642	723	803
HRW-600-MS 200	CMH	416	623	831	1039	1189	1454	1662	1870	2078
	CFM	245	367	489	611	700	856	978	1100	1223
HRW-700-MS 200	CMH	586	879	1172	1465	1699	2051	2345	2638	2931
	CFM	345	517	690	862	1000	1207	1380	1552	1725
HRW-800-MS 200	CMH	785	1177	1569	1962	2379	2746	3139	3531	3923
	CFM	462	693	924	1154	1400	1616	1847	2078	2309
HRW-900-MS 200	CMH	1011	1517	2022	2528	3059	3539	4044	4550	5055
	CFM	595	893	1190	1488	1800	2083	2380	2678	2975
HRW-1000-MS 200	CMH	1265	1898	2531	3164	3738	4429	5062	5695	6327
	CFM	745	1117	1489	1862	2200	2607	2979	3351	3724
HRW-1100-MS 200	CMH	1548	2322	3096	3869	4588	5417	6191	6965	7739
	CFM	911	1366	1822	2277	2700	3188	3643	4099	4554
HRW-1200-MS 200	CMH	1820	2730	3640	4550	5438	6371	7281	8191	9101
	CFM	1071	1607	2142	2678	3200	3749	4285	4820	5356
HRW-1300-MS 200	CMH	2105	3157	4210	5262	6287	7367	8419	9472	10524
	CFM	1239	1858	2477	3097	3700	4335	4955	5574	6193
HRW-1400-MS 200	CMH	2467	3701	4934	6168	7307	8635	9869	11103	12336
	CFM	1452	2178	2904	3630	4300	5082	5808	6534	7260
HRW-1500-MS 200	CMH	2858	4286	5715	7144	8666	10002	11430	12859	14288
	CFM	1682	2523	3363	4204	5100	5886	6727	7568	8409
HRW-1600-MS 200	CMH	3239	4859	6479	8099	9686	11338	12958	14577	16197
	CFM	1906	2860	3813	4766	5700	6672	7626	8579	9532
HRW-1700-MS 200	CMH	3683	5524	7366	9207	11045	12890	14732	16573	18415
	CFM	2167	3251	4335	5418	6500	7586	8670	9753	10837
HRW-1800-MS 200	CMH	4154	6232	8309	10386	12574	14540	16617	18695	20772
	CFM	2445	3667	4890	6112	7400	8557	9779	11002	12224
HRW-1900-MS 200	CMH	4654	6981	9307	11634	13934	16288	18615	20942	23269
	CFM	2739	4108	5477	6847	8200	9585	10955	12324	13694
HRW-2000-MS 200	CMH	5181	7771	10362	12952	15633	18133	20724	23314	25905
	CFM	3049	4574	6098	7623	9200	10672	12196	13721	15245
HRW-2130-MS 200	CMH	5907	8860	11813	14766	18182	20673	23626	26579	29533
	CFM	3476	5214	6952	8690	10700	12166	13904	15642	17380
HRW-2200-MS 200 (MonoG)	CMH	6355	9532	12709	15887	19031	22241	25419	28596	31773
	CFM	3740	5610	7479	9349	11200	13089	14959	16829	18699
HRW-2200-MS 200 (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-MS 200 (MonoG)	CMH	7608	11413	15217	19021	22940	26630	30434	34238	38042
	CFM	4478	6716	8955	11194	13500	15671	17910	20149	22388
HRW-2400-MS 200 (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-MS 200	CMH	8974	13461	17948	22435	27018	31409	35896	40383	44870
	CFM	5281	7922	10562	13203	15900	18484	21125	23765	26406
HRW-2800-MS 200	CMH	10451	15677	20902	26128	31436	36579	41805	47030	52256
	CFM	6150	9226	12301	15376	18500	21527	24602	27677	30752
HRW-3000-MS 200	CMH	12040	18060	24080	30100	36194	42140	48160	54180	60200
	CFM	7086	10628	14171	17714	21300	24800	28342	31885	35428
HRW-3200-MS 200	CMH	13741	20611	27481	34352	41291	48093	54963	61833	68704
	CFM	8086	12130	16173	20216	24300	28302	32346	36389	40432
HRW-3400-MS 200	CMH	15553	23330	31106	38883	46729	54436	62213	69989	77766
	CFM	9153	13730	18306	22883	27500	32036	36612	41189	45765
HRW-3600-MS 200	CMH	17477	26216	34954	43693	52506	61170	69909	78648	87386
	CFM	10285	15428	20571	25713	30900	35999	41141	46284	51427
HRW-3800-MS 200	CMH	19513	29270	39026	48783	58624	68296	78052	87809	97565
	CFM	11483	17225	22967	28709	34500	40192	45934	51676	57417
HRW-4000-MS 200	CMH	21661	32491	43321	54152	65081	75812	86643	97473	108303
	CFM	12747	19121	25495	31868	38300	44616	50989	57363	63737
HRW-4200-MS 200	CMH	23920	35880	47840	59800	71878	83720	95680	107640	119600
	CFM	14077	21115	28154	35192	42300	49269	56308	63346	70384
HRW-4400-MS 200	CMH	26291	39436	52582	65727	79014	92018	105164	118309	131455
	CFM	15472	23208	30944	38681	46500	54153	61889	69625	77361
HRW-4500-MS 200	CMH	27518	41278	55037	68796	82557	96314	110074	123833	137592
	CFM	16195	24292	32389	40486	48585	56681	64778	72876	80973
HRW-4600-MS 200	CMH	28774	43161	57547	71934	86321	100708	115095	129482	143869
	CFM	16933	25400	33867	42333	50800	59267	67733	76200	84667
HRW-4800-MS 200	CMH	31368	47052	62736	78421	94138	109789	125473	141157	156841
	CFM	18460	27690	36920	46150	55400	64611	73841	83071	92301
HRW-5000-MS 200	CMH	34074	51112	68149	85186	102294	119260	136298	153335	170372
	CFM	20053	30079	40106	50132	60200	70185	80211	90238	100264

Height and Width "A" mm Inches	Depth in Flow Direction "B" mm Inches	Net Weight Kg. Pounds
600	295	49
23.6	11.6	108
700	295	55
27.6	11.6	121
800	295	63
31.5	11.6	139
850	295	68
33.5	11.6	150
950	295	77
37.4	11.6	170
1030	295	85
40.6	11.6	187
1130	295	95
44.5	11.6	209
1230	295	125
48.4	11.6	276
1330	295	146
52.4	11.6	322
1430	295	172
56.3	11.6	379
1530	295	187
60.2	11.6	412
1630	295	199
64.2	11.6	439
1730	325	230
68.1	12.8	507
1830	325	235
72.0	12.8	518
1930	325	263
76.0	12.8	580
2030	325	282
79.9	12.8	622
2130	325	322
83.9	12.8	710
2201	325	370
86.7	12.8	815
2400	460	375
94.5	18.1	827
2400	460	616
94.5	18.1	1358
2480	325	479
97.6	12.8	1056
2600	460	696
102.4	18.1	1534
2800	460	764
110.2	18.1	1684
3000	460	832
118.1	18.1	1834
3200	460	909
126.0	18.1	2003
3400	514	1000
133.9	20.2	2204
3600	514	1060
141.7	20.2	2336
3800	514	1154
149.6	20.2	2543
4000	514	1358
157.5	20.2	2993
4200	514	1448
165.4	20.2	3191
4400	514	2413
173.2	20.2	5318
4600	514	2550
181.1	20.2	5620
4700	514	2625
185.0	20.2	5786
4800	514	2691
189.0	20.2	5931
5000	514	2835
196.9	20.2	6248
5200	514	2964
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.
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