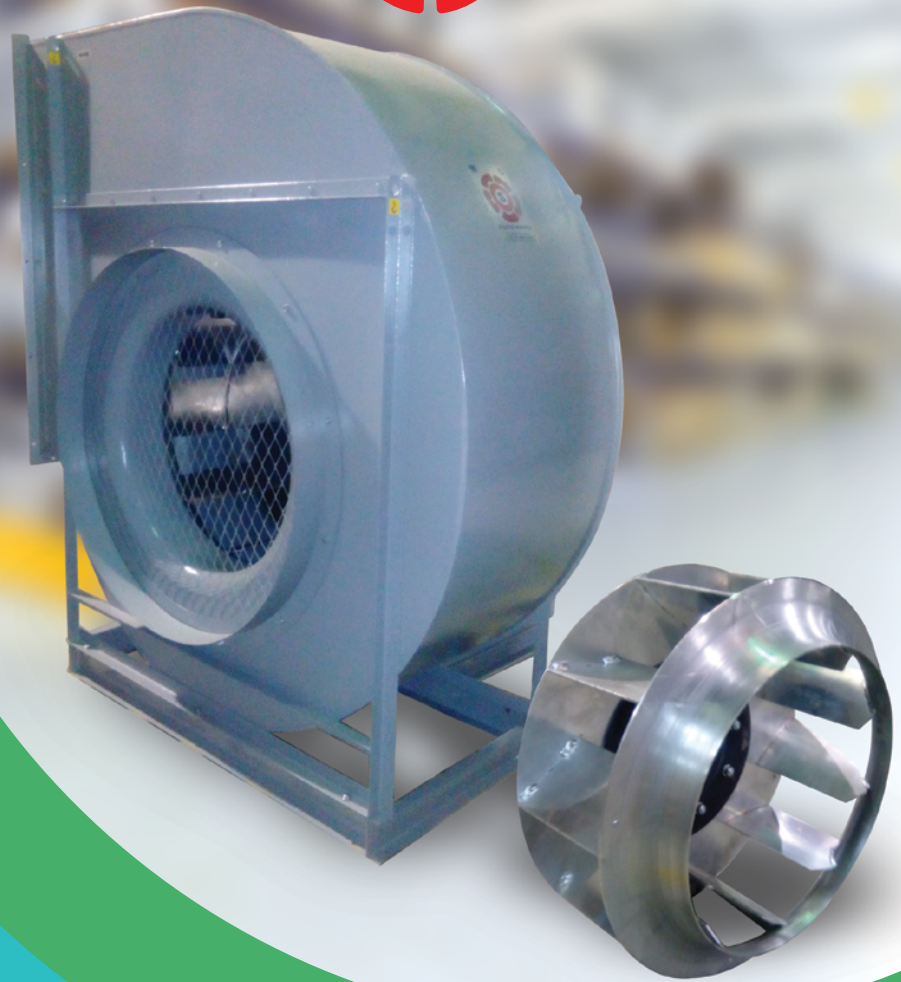


CATALOGUE # SF - 10
APRIL 2017



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SWSI – CENTRIFUGAL FAN
SINGLE WIDTH SINGLE INLET

HRE SERIES - BELT & DIRECT DRIVEN

2nd Industrial City, Tel: +966 13 812 1866, Fax: +966 13 812 1894, Email: sales-sfi@refhouse.com



Vision

To be the first choice for industrial & commercial fans in the kingdom of Saudi Arabia & Middle East region

Mission

To deliver customized industrial & commercial fans that conforms to international standards and to develop the required processes and human resources in line with demands of globalization, economic, reform and good governance practices

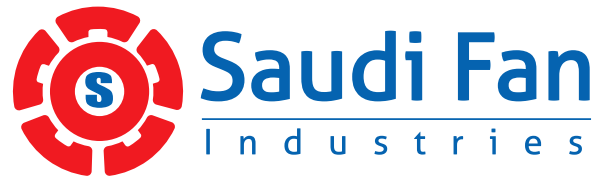
Corporate Objective

To achieve sustainable growth and a high degree of customer retention with a keen focus on quality & efficiency

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POLICY



Management Commitment to Quality

We are continuously striving to provide higher quality products and services to achieve total customer satisfaction by understanding their requirements and anticipating their future expectations or needs

We are committed to development and strengthening of Partnership with our external and internal customers and suppliers

We are dedicated to continual improvement of all products and services through involvement of all employees.

We value all people by understanding and drawing upon their strengths ie. abilities and knowledge and make efforts for their training and development .

President
Ali Saleh Al Khalaf

PROFILE



Saudi Fan Industries was established In 1999 as another manufacturing division of steadily growing organization **“Refrigeration House Holding Company “** in order to fulfill requirements of local market for air movement and control equipments.

As a member of Refrigeration House Holding Company , that has market research for ventilation equipments spread over 25 years ,Saudi Fan industries now has grown into a full swing manufacturing unit to satisfy the demanding needs of air movement and control equipments for modern residential , commercial and industrial zones .

Saudi Fan Industries has acquired modern manufacturing technology and modern testing facilities like **AMCA Accredited Test Laboratory for Standard 210** in order to achieve **“TotalCustomer Satisfaction”**. Not only still it has been investing significant resources in latest technology but also has created a medium where everyone in the organization can contribute. We have a stringent policy of research,development and making awareness of technology throughout the organization . **Saudi Fan Industries has been implemented Quality Assurance Management System as per EN ISO 9001:2015 Standard** . As a result ,Saudi Fan Industries products are manufactured precisely and consistently through all production stages under strict quality control procedures.

Saudi Fan Industries strictly acting on the policy of **“The high quality product should be delivered to our valued customers right from the beginning”** .

Now Saudi Fan Industries is not only the leading supplier of air movement and control equipment in Kingdom but also a famous name in entire gulf. It offers wide range of fans and ventilator products for residential,commercial ,institutional and industrial buildings in applications from comfort ventilation to manufacturing processes.

Products are available for exhaust,supply,re-circulate, filtered process and gravity applications. Fans are available in either direct drive or belt drive.

Saudi Fan Industries has significant production capacity in order to fulfill markets demand. It also has a pool of qualified staff,who are fully dedicated to give best advice to our valued customers inquiries .



Saudi Fan Industries Certifies Models Except HRE 1220 ,HRE 1120 shown herein are Licenced to bear the AMCA Sound and Air Performance seals.The ratings shown are based on tests and procedures performed in accordance with AMCA publication 211 , AMCA publication 311 and comply with requirements of the AMCA Certified Ratings Programme.

Technical information

Fan Laws

Speed Variation at constant fan size and constant density :

The volume flow changes proportionately to the speed .

$$\frac{V_1}{V_2} = \frac{n_1}{n_2}$$

All pressures (static, dynamic and total) change proportionately to the square of speed .

$$\frac{P_{st1}}{P_{st2}} = \left(\frac{n_1}{n_2}\right)^2 = \left(\frac{V_1}{V_2}\right)^2$$

The Power requirement changes proportionately to the third power of speed

$$\frac{P_1}{P_2} = \left(\frac{n_1}{n_2}\right)^3 = \left(\frac{V_1}{V_2}\right)^3$$

In the case of changes in the wheel diameter of geometrically similar wheels at constant speed :

The volume flow changes proportionately to the third power of the wheel diameter .

$$\frac{V_1}{V_2} = \left(\frac{D_1}{D_2}\right)^3$$

All pressures (static, dynamic and total) change proportionately to the square of wheel diameter .

$$\frac{P_{st1}}{P_{st2}} = \left(\frac{D_1}{D_2}\right)^2$$

The Power requirement changes proportionately to the fifth power of wheel diameter .

$$\frac{P_1}{P_2} = \left(\frac{D_1}{D_2}\right)^5$$

Pressure units

Convert from	Convert to										
	Pa (N/m ²)	bar	atm	mm Hg = 1 torr	mm H ₂ O	m H ₂ O	kg/cm ²	lb/ft ²	lb/in ² (psi)	inches Hg	inches H ₂ O
Pa (N/m ²)	1	10 ⁻⁵	9.87 10 ⁻⁶	0.0075	0.1	10 ⁻⁴	1.02 10 ⁻⁵	0.021	1.45 10 ⁻⁴	2.96 10 ⁻⁴	4.02 10 ⁻³
Bar	105	1	0.987	750	1.01910 ⁴	10.197	1.0197	2090	14.5	29.61	402
atmosphere	1.01 10 ⁵	1.013	1	759.9	10332	10.332	1.03	2117.5	14.69	29.92	407
mm Hg	133.3	1.33 10 ⁻³	1.32 10 ⁻³	1	13.3	0.013	1.36 10 ⁻³	2.79	0.019	0.039	0.54
mm H ₂ O	10	0.000097	9.87 10 ⁻⁵	0.075	1	0.001	1.02 10 ⁻⁴	0.209	1.45 10 ⁻³	2.96 10 ⁻³	0.04
m H ₂ O	104	0.097	9.87 10 ⁻²	75	1000	1	0.102	209	1.45	2.96	40.2
kg/cm ²	9.8 10 ⁴	0.98	0.97	735	10000	10	1	2049	14.21	29.03	394
lb/ft ²	47.8	4.78 10 ⁻⁴	4.72 10 ⁻⁴	0.36	4.78	4.78 10 ⁻³	4.88 10 ⁻⁴	1	0.0069	0.014	0.19
lb/in ² (psi)	6894.76	0.069	0.068	51.7	689.7	0.69	0.07	144	1	2.04	27.7
inches Hg	3377	0.0338	0.033	25.4	337.7	0.337	0.034	70.8	0.49	1	13.57
inches H ₂ O	248.8	2.49 10 ⁻³	2.46 10 ⁻³	1.87	25.4	0.0254	0.0025	5.2	0.036	0.074	1

Volume Flow Units

Convert from	Convert to										
	m ³ /s	m ³ /min	m ³ /h	liter/sec	liter/min	liter/h	cfm	US gpd	US gpm	IMP gpd	IMP gpm
m ³ /s	1	60	3600	1000	60000	3600000	2119	22800000	15852	19000000	13200
m ³ /min	0.0167	1	60	16.67	1000	60000	35.32	380000	264.2	316667	220
m ³ /h	0.000278	0.0167	1	0.278	16.67	1000	0.589	6333.3	4.403	5277.8	3.67
liter/sec	0.001	0.06	3.6	1	60	3600	2.119	22800	15.852	19000	13.2
liter/min	1.67 10 ⁻⁵	0.001	0.06	0.0167	1	60	0.0353	380	0.2642	316.7	0.22
liter/h	2.7 10 ⁻⁷	0.000017	0.001	0.00028	0.0167	1	0.00059	6.33	0.0044	5.28	0.0037
Cfm	0.00047	0.028	1.699	0.472	28.32	1698.99	1	10760.3	7.48	8966.9	6.23
US gpd	4.39 10 ⁻⁸	2.6 10 ⁻⁶	0.000158	0.000044	0.0026	0.158	0.000093	1	0.000695	0.833	0.000579
US gpm	0.000063	0.00379	0.227	0.063	3.785	227.1	0.1337	1438.3	1	1198.6	0.833
IMP gpd UK	5.26 10 ⁻⁸	3.2 10 ⁻⁶	0.000189	5.26 10 ⁻⁵	0.00316	0.1895	0.00011	1.2	0.00083	1	0.00069
IMP gpm UK	0.000076	0.0046	0.272	0.076	4.55	272.7	0.161	1727.3	1.2	1439.4	1

SWSI - Centrifugal Fan

Fan Introduction

HRE Fans

Saudi Fan Industries HRE utility fans have many advantages: higher operating efficiencies, non-overloading power curves and higher pressure capabilities. You will also receive the following benefits with these fans:

- SFI HRE utility fans are designed, engineered and tested to provide years of smooth, vibration-free operation with minimal maintenance.
- Fans shall be used for Supply or Exhaust application
- Fans may be mounted indoors or outdoors.
- Available in Belt Drive or Direct Drive Type.
- HRE fans are available in fifteen sizes (250 through 1200) with capacities from 390 to 40010 cfm (663 to 68017 m³/hr)
- Fans are tested in our AMCA accredited laboratory to ensure complete and accurate performance ratings. All models except HRE 1220, HRE 1120 shown herein are licensed to bear the AMCA Sound and Air Performance seal. Performance as cataloged is assured.



SWSI - Centrifugal Fan

Standard Construction Features

Fan casings

The whole spiral casings are made of black sheet steel. The side plates with holes are fastened to the scroll by lock seam and are spot welded construction. Stainless steel casing is available for different applications.

Impellers

The impellers are backward inclined forward curved type made from heavy gauge aluminium.

The Torsion-resistant impellers guarantee a high standard of technology regarding volume flows and processing. The impellers with the shaft are statically and dynamically balanced on precision machines according to quality standard G2.5 DIN/ISO1940. All impeller series guarantee highest peripheral speed. Steel Impellers are available upon request.



Shaped inlets

The aerodynamically shaped inlets are bolted in and guarantee a perfect inlet stream onto the impeller. The standard inlets for the type HRE are made of PU Coated cold rolled sheet metal.



Motors

Following motors are available

TEFC -Total Enclosed fan cooled motors with protection against humidity IP 55, Class- F, 50 °C Ambient. Available at Single and Three phase Supply.

XPFC - Explosion Proof –The Explosion proof motor shall be suitable for hazardous duty and shall bear UL listed label suitable for Group 1, class C & D

The motors are suitable for operation with frequency converter. Before initial operation and during maintenance, the manufacturer's detailed instructions regarding motor protection installations which are required on site, have to be followed.

The motor wiring box is easily accessible. The motor has to be connected according to the wiring diagram under consideration of the local guidelines and directives.

In case of operation with VFD, please refer to SFI engineer.

The maximum allowed start up time for standard motors is about 10 sec. Therefore a safe start up of the motor is observed if the operating conditions are considered. When the motor is started directly the resulted starting

Current can be 6 times higher as in normal operation.

It is advisable to use star-delta starting especially for big motors.

Shafts

Precisely sized, ground and polished so the first critical speed is at least 25% over the maximum operating speed. Where the shaft makes contact with bearings, close tolerances result in longer bearing life.

SWSI - Centrifugal Fan

Standard Construction Features

Bearings

Cast iron frame pre-lubricated self-aligning ball bearing. The low noise precision ball bearings are designed for a theoretical life of at least 200,000 working hours.

Drive Assembly

V- Belts, pulleys and keys are oversized 150% of driven horsepower. Belts are static-free and oil-resistant

Weather cover

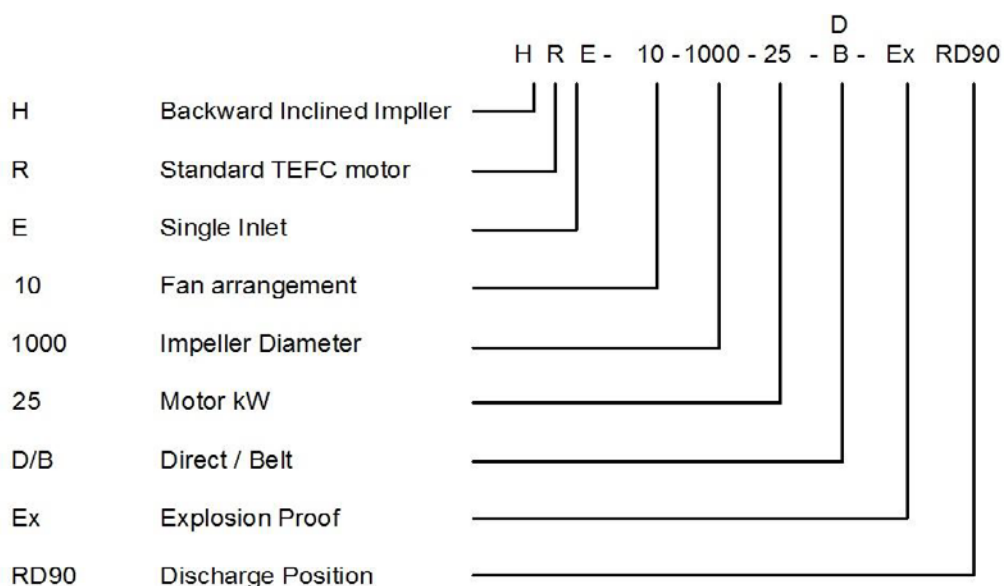
Louvered protection cover / guards ensure ventilation of motors and safe guard bearing and pulleys.

Spark-Resistant Construction

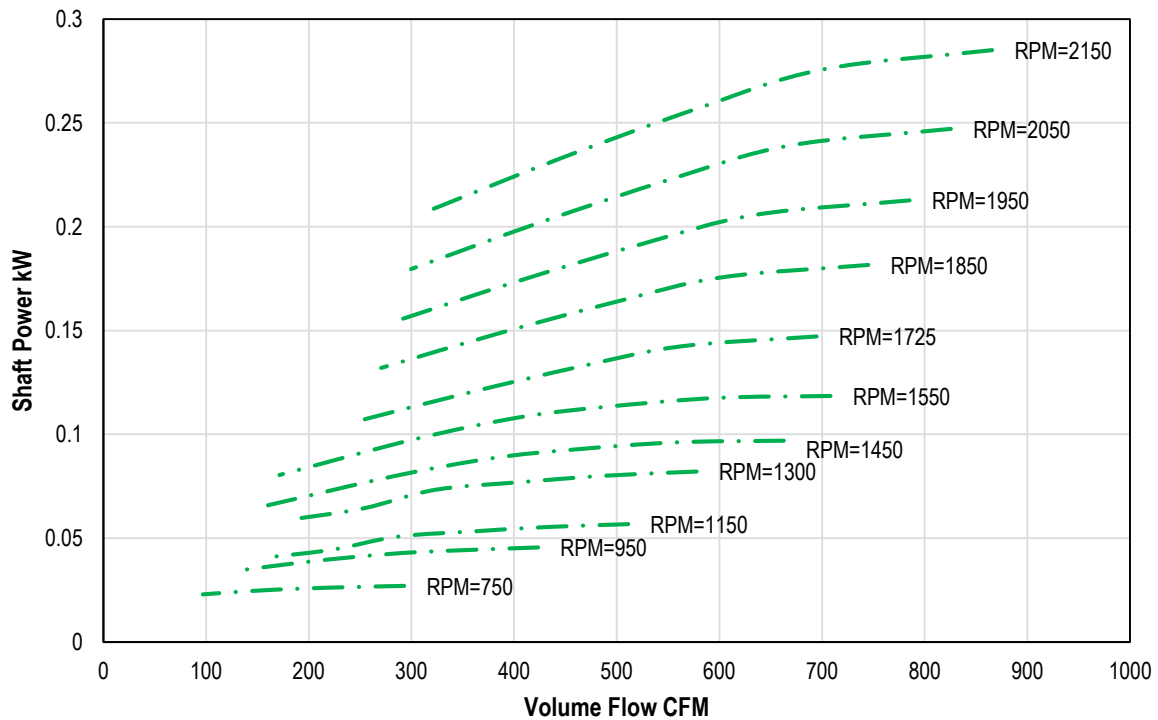
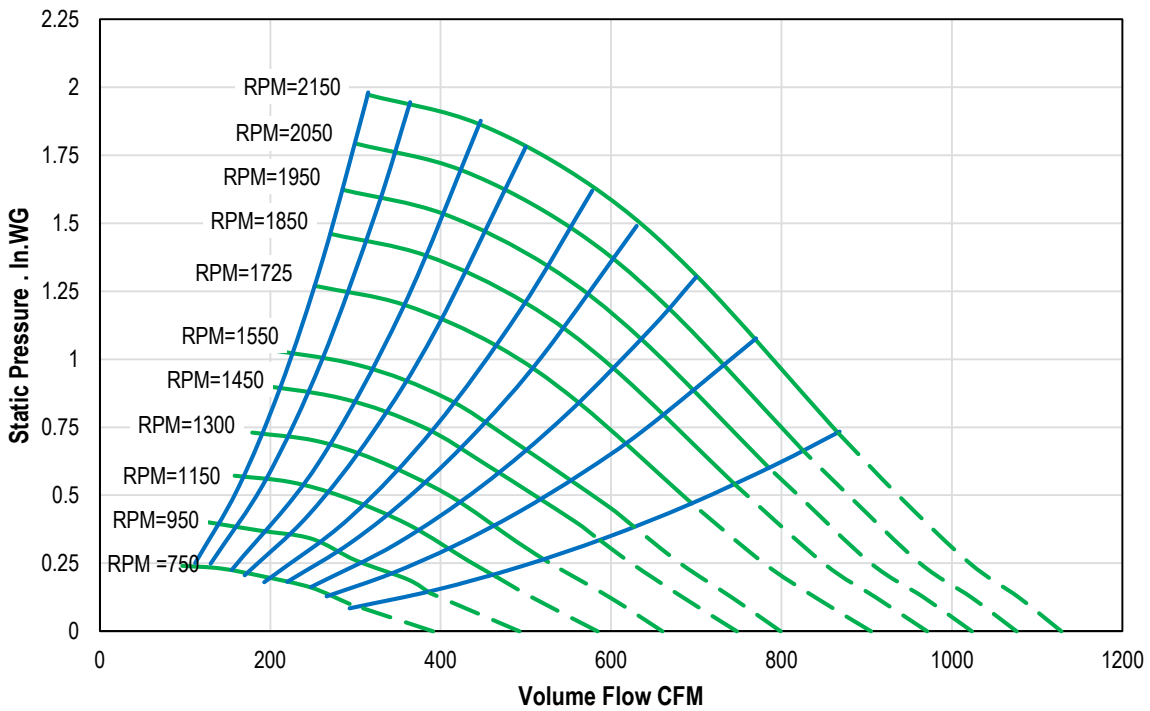
The following AMCA Standards apply to fan applications that may involve the handling of potentially explosive or flammable particles, fumes or vapors. Models with spark resistant construction options that meet the intent of these AMCA Standards.

- **AMCA Type C** - The inlet cone is constructed of nonferrous material (aluminum). A nonferrous (aluminum) rub ring surrounds the fan shaft where it passes through the fan housing. The constructions listed minimize the potential of ferrous components making contact with each other that may produce sparks. However, they do not guarantee against the potential of producing sparks. The installer must electrically ground all fan and system Components.

Reference Code



SWSI - Centrifugal Fan | HRE 250

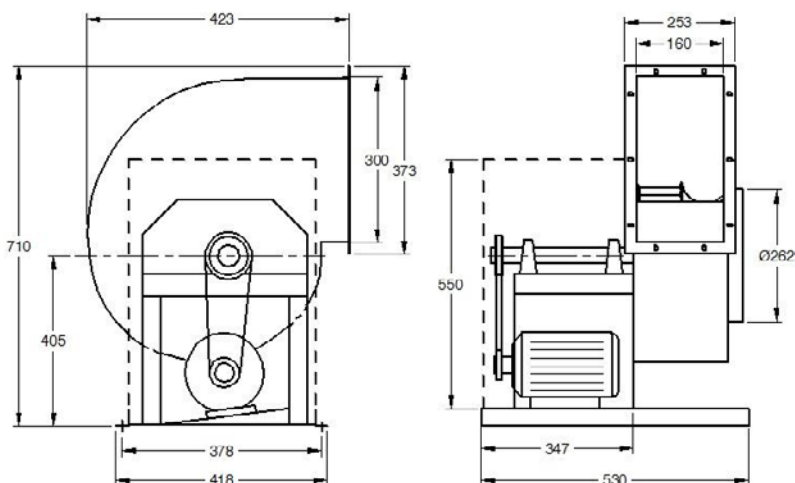


Performance certified is for installation type C: Ducted inlet, Free outlet per AMCA Standard 210 . Performance ratings do not include the effects of appurtenances (accessories) .Power ratings (BKW) do not include transmission losses. The Sound ratings shown are loudness values in fan sones at 1.5 m (5 ft) in a hemispherical free field calculated per AMCA International Standard 301 . Values shown are for : Installation Type B : free inlet, Ducted outlet hemispherical sone levels .

SWSI - Centrifugal Fan | HRE 250

Fan RPM		Static Pressure in Inches of WG								
		0	0.125	0.25	0.5	0.75	1	1.25	1.5	1.75
750	CFM	391	274							
	BKW	0.03	0.03							
	SONES	5.5	5.3							
950	CFM	492	395	310						
	BKW	0.05	0.05	0.04						
	SONES	7.2	6.7	6.2						
1150	CFM	584	507	437	278					
	BKW	0.06	0.06	0.06	0.05					
	SONES	9.1	8.7	8.3	7.3					
1300	CFM	660	598	528	409					
	BKW	0.09	0.08	0.08	0.08					
	SONES	11.0	9.8	9.4	8.8					
1450	CFM	747	684	623	509	380				
	BKW	0.10	0.10	0.10	0.09	0.09				
	SONES	12.1	11.8	11.4	10.6	9.7				
1550	CFM	799	741	681	577	459	262			
	BKW	0.13	0.12	0.12	0.12	0.11	0.09			
	SONES	13.1	12.8	12.4	11.6	10.8	9.5			
1725	CFM	905	840	779	684	594	488			
	BKW	0.17	0.16	0.15	0.15	0.14	0.14			
	SONES	15.0	15.5	14.2	13.2	12.4	12.2			
1850	CFM	971	910	849	760	675	588	471		
	BKW	0.21	0.20	0.19	0.18	0.18	0.17	0.16		
	SONES	16.3	15.9	15.5	14.8	14.2	13.6	13.6		
1950	CFM	1023	967	905	820	738	659	563	425	
	BKW	0.24	0.23	0.22	0.22	0.21	0.21	0.20	0.18	
	SONES	17.3	17.0	16.5	15.9	15.3	14.7	14.0	13.0	
2050	CFM	1076	1023	963	879	800	724	643	543	355
	BKW	0.28	0.27	0.26	0.25	0.25	0.24	0.24	0.22	0.19
	SONES	18.3	18.1	17.6	17.0	16.4	15.8	15.2	14.5	13.1
2150	CFM	1128	1078	1021	937	860	788	716	629	511
	BKW	0.32	0.31	0.30	0.29	0.28	0.28	0.28	0.26	0.24
	SONES	19.4	19.1	18.7	18.1	17.5	16.9	16.4	15.7	14.9

Dimensions:



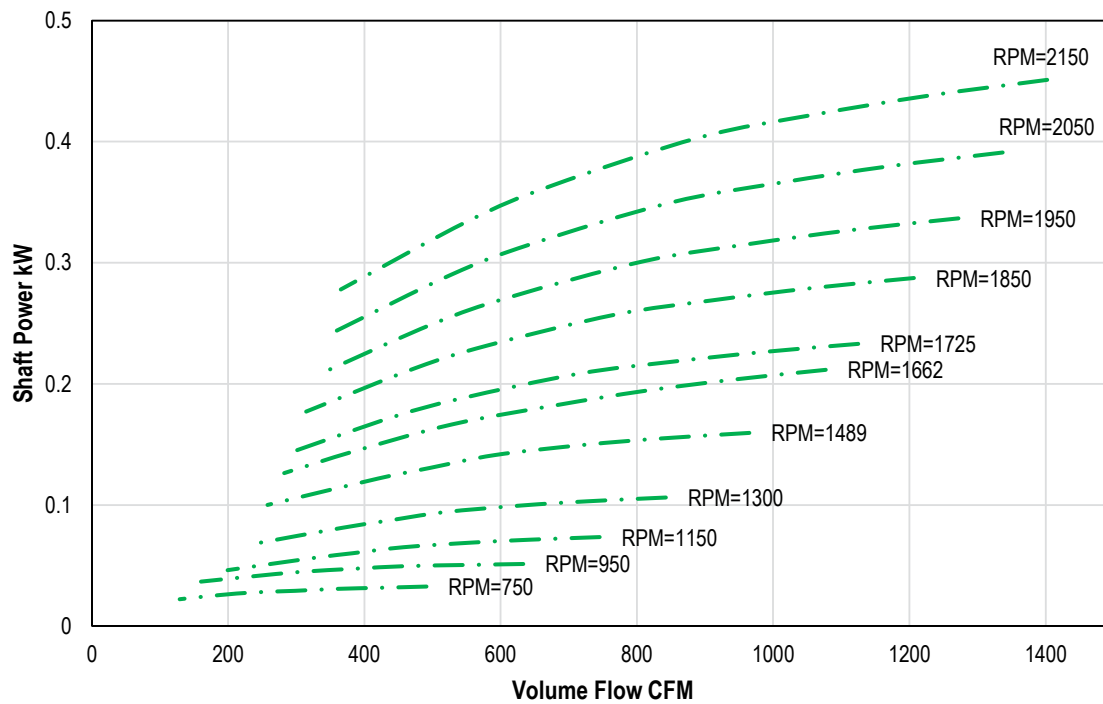
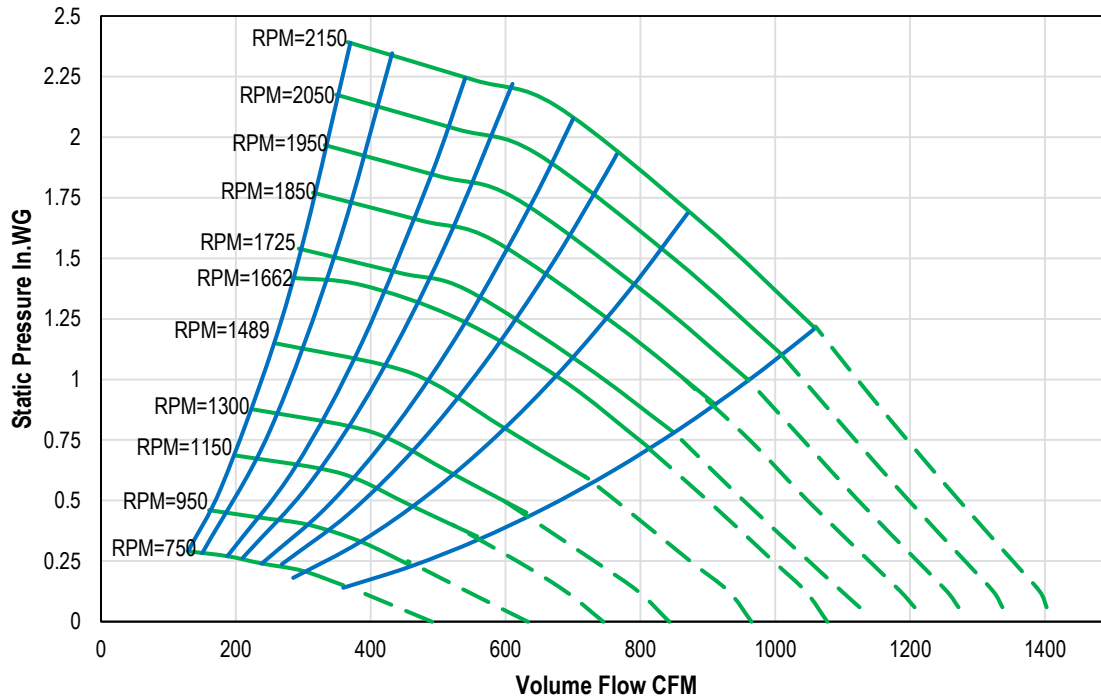
Wheel Diameter D = 250
 Number of Blade Z=10
 Shaft Diameter d = 20
 ^Approximate Unit Weight = 100
 All dimensions in millimeters
 For additional discharge positions see page 43
 ^Weight shown is excluding motor weight, See page 41

Shaded Area Indicates Best Operating Points



Performance certified is for installation type C: Ducted inlet, Free outlet per AMCA Standard 210 . Performance ratings do not include the effects of appurtenances (accessories) .Power ratings (BKW) do not include transmission losses. The Sound ratings shown are loudness values in fan sones at 1.5 m (5 ft) in a hemispherical free field calculated per AMCA International Standard 301 . Values shown are for : Installation Type B : free inlet, Ducted outlet hemispherical sone levels .

SWSI - Centrifugal Fan | HRE 280

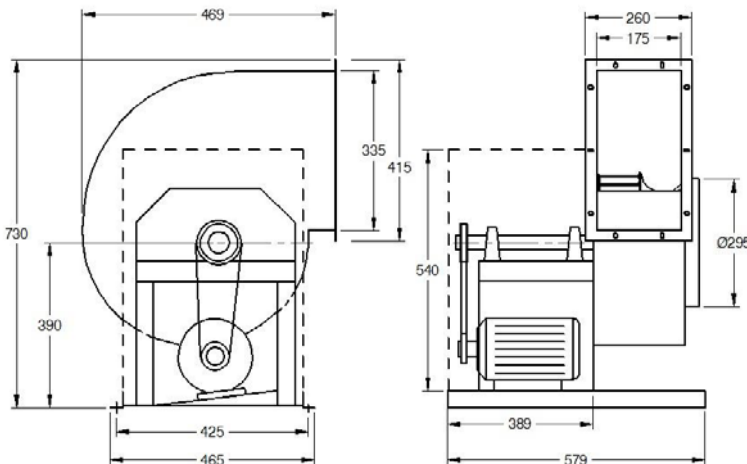


Performance certified is for installation type C: Ducted inlet, Free outlet per AMCA Standard 210 . Performance ratings do not include the effects of appurtenances (accessories) .Power ratings (BKW) do not include transmission losses. The Sound ratings shown are loudness values in fan sones at 1.5 m (5 ft) in a hemispherical free field calculated per AMCA International Standard 301 . Values shown are for : Installation Type B : free inlet, Ducted outlet hemispherical sone levels .

SWSI - Centrifugal Fan | HRE 280

Fan RPM		Static Pressure in Inches wg										
		0	0.125	0.25	0.5	0.75	1	1.25	1.5	1.75	2	2.25
750	CFM	491	383	221								
	BKW	0.03	0.03	0.03								
	SONES	5.2	4.9	4.8								
950	CFM	633	543	455								
	BKW	0.05	0.05	0.05								
	SONES	7	6.7	6.2								
1150	CFM	745	689	617	445							
	BKW	0.07	0.07	0.07	0.06							
	SONES	9.5	9.2	8.6	7.5							
1300	CFM	843	797	732	597	430						
	BKW	0.11	0.1	0.1	0.1	0.09						
	SONES	11.6	11.3	10.6	9.4	8.4						
1489	CFM	965	931	874	763	627	477					
	BKW	0.16	0.16	0.16	0.15	0.14	0.13					
	SONES	14.6	15.6	14.7	12.8	11.2	9.8					
1662	CFM	1077	1045	997	900	798	683	529				
	BKW	0.21	0.21	0.21	0.2	0.19	0.18	0.17				
	SONES	17.9	17.6	15.7	14.4	13	12.4	11.2				
1725	CFM	1125	1099	1050	953	861	744	609	353			
	BKW	0.23	0.23	0.23	0.22	0.22	0.21	0.2	0.16			
	SONES	19.4	19.2	17	16.6	14.4	14	13.2	10.4			
1850	CFM	1207	1186	1140	1048	962	865	751	621	344		
	BKW	0.29	0.29	0.28	0.28	0.27	0.27	0.25	0.24	0.18		
	SONES	22.2	22.1	21.1	19.2	17.7	16.2	14.7	13.3	11.2		
1950	CFM	1272	1255	1211	1123	1041	959	853	737	613		
	BKW	0.34	0.34	0.33	0.33	0.32	0.31	0.31	0.29	0.27		
	SONES	24.6	24.6	23.5	21.5	19.9	18.5	16.8	15.2	14.0		
2050	CFM	1337	1324	1282	1199	1119	1041	950	849	731	566	
	BKW	0.39	0.39	0.39	0.38	0.38	0.37	0.36	0.35	0.33	0.30	
	SONES	27.1	27.3	26.2	24.1	22.3	20.8	19.1	17.5	15.9	14.1	
2150	CFM	1402	1392	1352	1273	1196	1122	1044	948	845	733	536
	BKW	0.45	0.45	0.45	0.44	0.44	0.43	0.42	0.41	0.39	0.37	0.33
	SONES	29.9	30.1	28.9	26.8	24.9	23.3	21.7	19.9	18.2	16.7	14.5

Dimensions :



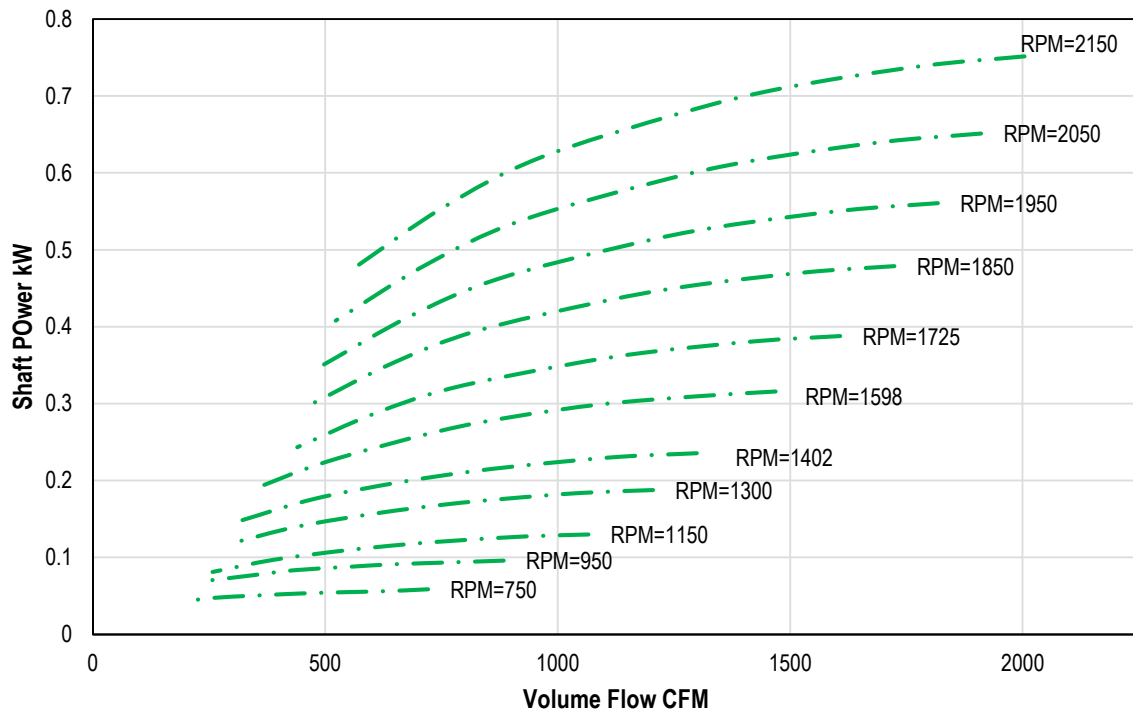
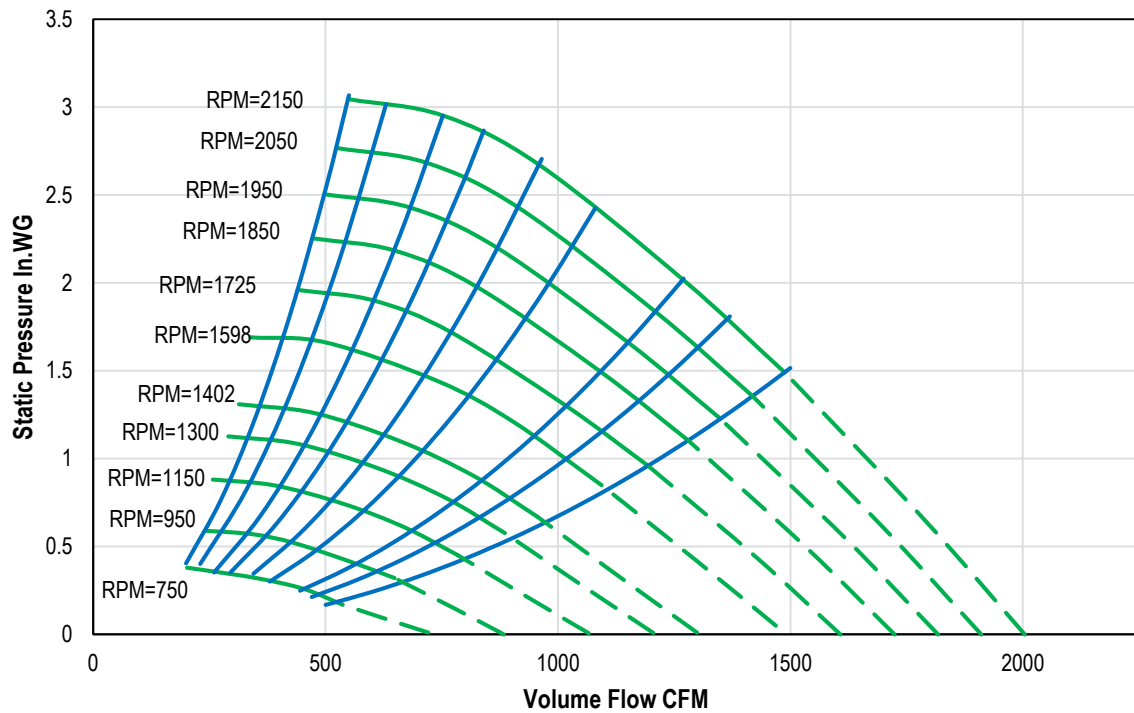
Wheel Diameter $D = 280$
 Number of Blade $Z=10$
 Shaft Diameter $d = 25$
 ^Approximate Unit Weight = 100
 All dimensions in millimeters
 For additional discharge positions see page 43
 ^Weight shown is excluding motor weight, See page 41

Shaded Area Indicates Best Operating Points



Performance certified is for installation type C: Ducted inlet, Free outlet per AMCA Standard 210 . Performance ratings do not include the effects of appurtenances (accessories) .Power ratings (BKW) do not include transmission losses. The Sound ratings shown are loudness values in fan sones at 1.5 m (5 ft) in a hemispherical free field calculated per AMCA International Standard 301 . Values shown are for : Installation Type B : free inlet, Ducted outlet hemispherical sone levels .

SWSI - Centrifugal Fan | HRE 315

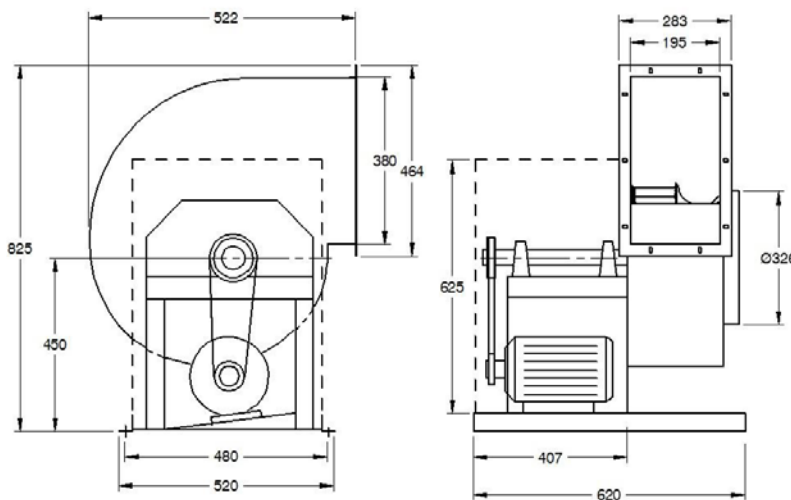


Performance certified is for installation type C: Ducted inlet, Free outlet per AMCA Standard 210 . Performance ratings do not include the effects of appurtenances (accessories) .Power ratings (BKW) do not include transmission losses. The Sound ratings shown are loudness values in fan sones at 1.5 m (5 ft) in a hemispherical free field calculated per AMCA International Standard 301 . Values shown are for : Installation Type B : free inlet, Ducted outlet hemispherical sone levels .

SWSI - Centrifugal Fan | HRE 315

Fan RPM		Static Pressure in Inches wg												
		0	0.125	0.25	0.5	0.75	1	1.25	1.5	1.75	2	2.25	2.5	3
750	CFM	721	587	461										
	BKW	0.06	0.06	0.05										
	SONES	6.3	5.4	4.9										
950	CFM	884	794	701	456									
	BKW	0.1	0.09	0.09	0.08									
	SONES	8.4	7.6	6.5	5.8									
1150	CFM	1066	990	910	748	527								
	BKW	0.13	0.13	0.13	0.12	0.11								
	SONES	11.8	10.5	9.4	8.1	7.3								
1300	CFM	1205	1139	1068	928	775	545							
	BKW	0.19	0.19	0.18	0.18	0.17	0.15							
	SONES	15.3	13.8	12.4	10.6	9.5	8.7							
1402	CFM	1299	1239	1173	1043	908	740	487						
	BKW	0.23	0.23	0.23	0.23	0.22	0.21	0.18						
	SONES	18.1	16.5	14.1	12.8	9.9	10.8	10.1						
1598	CFM	1469	1434	1376	1260	1141	1015	876	677					
	BKW	0.32	0.31	0.31	0.31	0.30	0.29	0.28	0.25					
	SONES	24.2	23	21.2	18.5	16.2	15.3	13.4	12.8					
1725	CFM	1608	1556	1505	1399	1288	1173	1044	900	742				
	BKW	0.39	0.39	0.38	0.38	0.37	0.36	0.35	0.34	0.31				
	SONES	30.3	28.1	26.2	23	20.4	18.8	17.1	15.3	17				
1850	CFM	1725	1676	1628	1532	1428	1324	1210	1089	951	807	483		
	BKW	0.48	0.48	0.47	0.47	0.46	0.46	0.44	0.43	0.41	0.39	0.30		
	SONES	36.2	33.9	31.8	28.3	25.2	22.8	20.8	19.3	18.2	17.8	16.8		
1950	CFM	1818	1772	1727	1635	1538	1439	1339	1224	1104	973	827	508	
	BKW	0.56	0.56	0.56	0.55	0.54	0.54	0.53	0.51	0.50	0.48	0.45	0.35	
	SONES	41.5	39.1	36.9	33.1	29.7	27.0	24.8	22.8	21.4	20.4	19.9	18.9	
2050	CFM	1911	1868	1824	1738	1647	1553	1458	1356	1247	1128	1004	859	
	BKW	0.65	0.65	0.65	0.64	0.64	0.63	0.62	0.61	0.59	0.57	0.55	0.52	
	SONES	47.4	44.8	42.5	38.4	34.8	31.7	29.2	27.0	25.1	23.7	22.9	22.3	
2150	CFM	2004	1963	1922	1839	1754	1664	1574	1484	1381	1277	1159	1041	646
	BKW	0.75	0.75	0.75	0.74	0.74	0.73	0.72	0.71	0.69	0.68	0.66	0.63	0.51
	SONES	53.7	51.1	48.6	44.3	40.5	37.0	34.1	31.8	29.5	27.8	26.4	25.6	24.1

Dimensions :



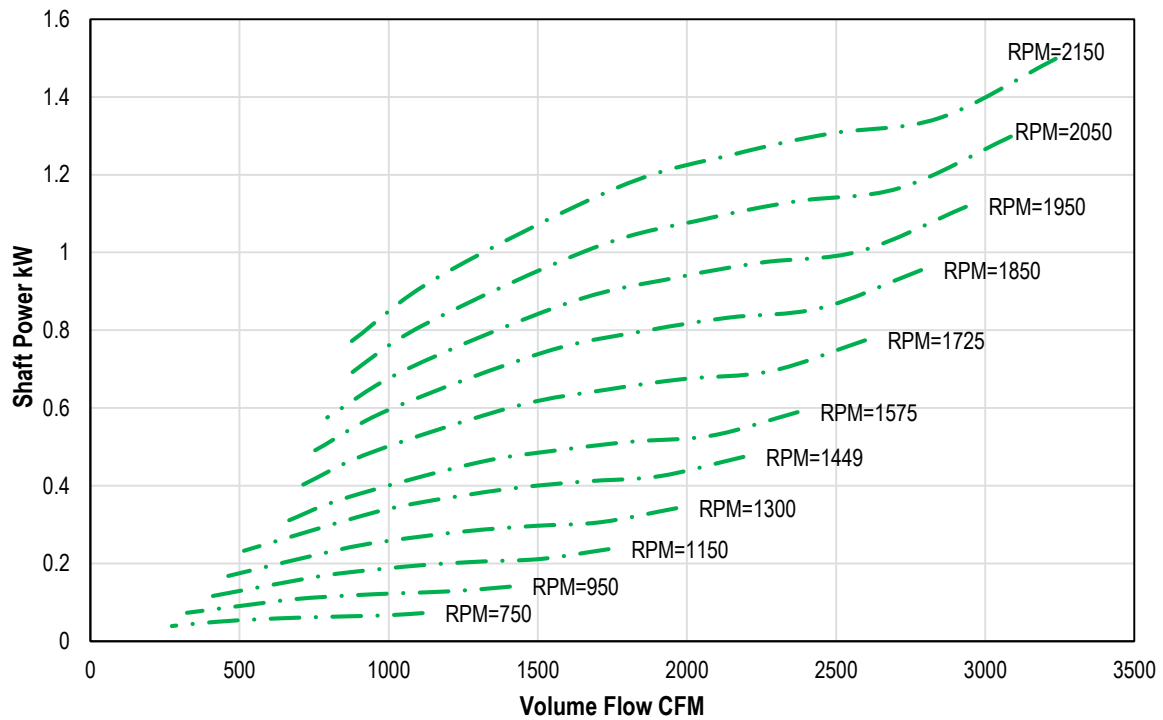
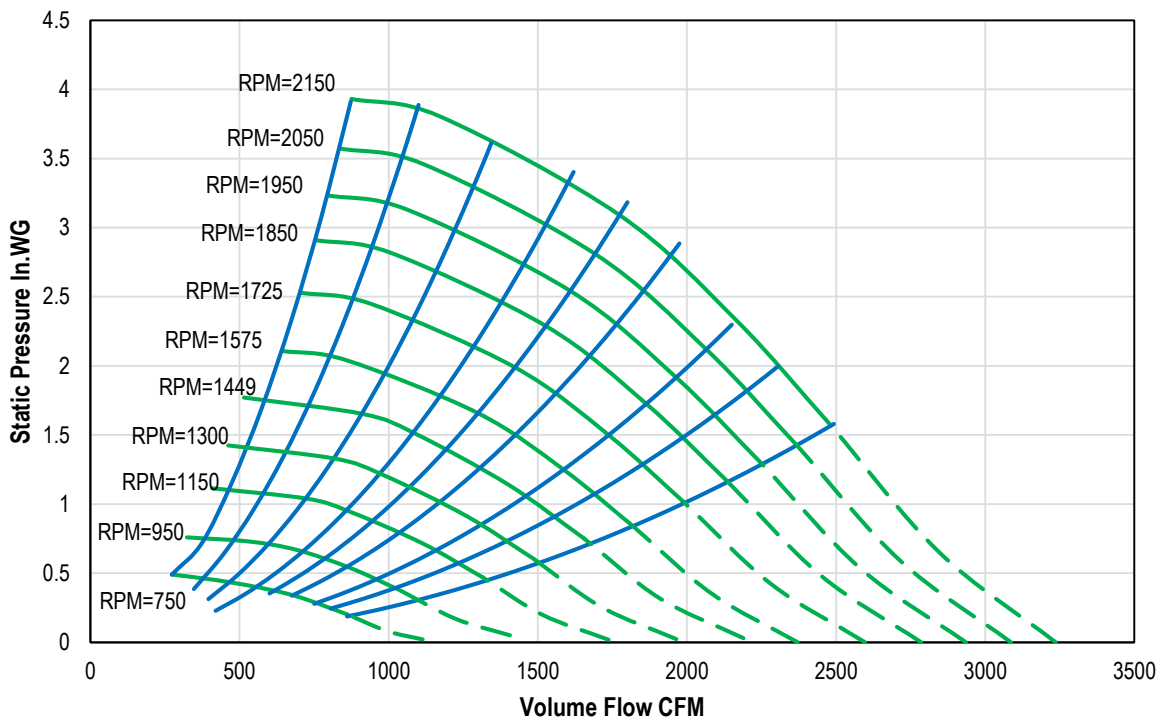
Wheel Diameter $D = 315$
 Number of Blade $Z=10$
 Shaft Diameter $d = 25$
 ^Approximate Unit Weight = 125
 All dimensions in millimeters
 For additional discharge positions see page 43
 ^Weight shown is excluding motor weight, See page 41

Shaded Area Indicates Best Operating Points



Performance certified is for installation type C: Ducted inlet, Free outlet per AMCA Standard 210 . Performance ratings do not include the effects of appurtenances (accessories) .Power ratings (BKW) do not include transmission losses. The Sound ratings shown are loudness values in fan sones at 1.5 m (5 ft) in a hemispherical free field calculated per AMCA International Standard 301 . Values shown are for : Installation Type B : free inlet, Ducted outlet hemispherical sone levels .

SWSI - Centrifugal Fan | HRE 355

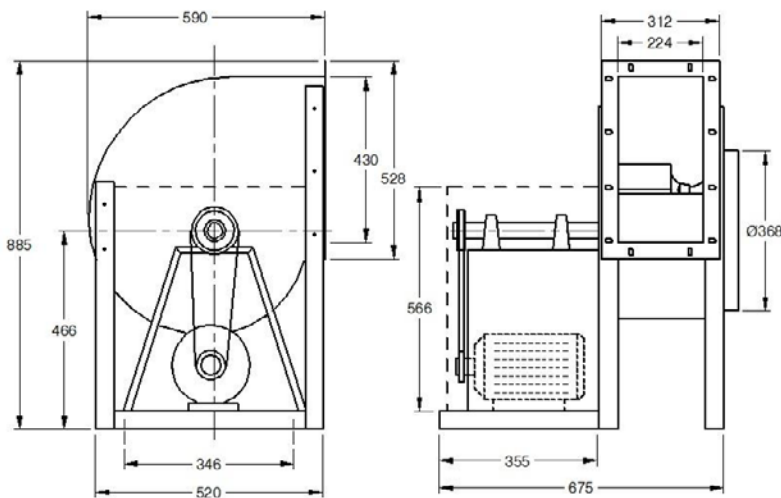


Performance certified is for installation type C: Ducted inlet, Free outlet per AMCA Standard 210 . Performance ratings do not include the effects of appurtenances (accessories) .Power ratings (BKW) do not include transmission losses. The Sound ratings shown are loudness values in fan sones at 1.5 m (5 ft) in a hemispherical free field calculated per AMCA International Standard 301 . Values shown are for : Installation Type B : free inlet, Ducted outlet hemispherical sone levels .

SWSI - Centrifugal Fan | HRE 355

Fan RPM		Static Pressure In WG												
		0	0.125	0.25	0.5	0.75	1	1.25	1.5	1.75	2	2.5	3	3.5
750	CFM	1110	944	799										
	BKW	0.07	0.06	0.06										
	SONES	6.4	5.5	4.6										
950	CFM	1407	1292	1151	910	393								
	BKW	0.14	0.13	0.13	0.12	0.08								
	SONES	9.5	9	7.6	6.3	5.6								
1150	CFM	1738	1607	1478	1291	1078	787							
	BKW	0.24	0.22	0.21	0.2	0.19	0.17							
	SONES	13.3	12.5	11.6	10.5	9.3	8							
1300	CFM	1964	1855	1719	1553	1379	1179	928						
	BKW	0.34	0.33	0.31	0.30	0.29	0.28	0.25						
	SONES	16.4	15.6	14.6	13.4	12.2	11.1	9.8						
1449	CFM	2189	2097	1975	1802	1655	1492	1308	1096	581				
	BKW	0.47	0.46	0.44	0.42	0.41	0.40	0.38	0.36	0.25				
	SONES	21	20.5	20	18	17.1	13.5	13.1	11.7	9.8				
1575	CFM	2371	2305	2183	2004	1869	1729	1587	1411	1194	906			
	BKW	0.59	0.58	0.55	0.52	0.52	0.51	0.49	0.47	0.44	0.38			
	SONES	22.7	22.1	21.0	19.4	18.3	17.2	16.1	14.9	13.6	12.2			
1725	CFM	2597	2547	2435	2244	2120	1997	1867	1737	1577	1412	791		
	BKW	0.77	0.76	0.73	0.69	0.68	0.67	0.66	0.65	0.63	0.60	0.43		
	SONES	26.4	26	24.9	23	21	20.8	19.7	18.7	17.5	16.4	13.1		
1850	CFM	2785	2748	2643	2441	2326	2211	2094	1972	1848	1699	1319		
	BKW	0.95	0.94	0.91	0.86	0.85	0.84	0.83	0.81	0.80	0.77	0.69		
	SONES	29.8	29.5	28.3	26.2	25.1	24.0	22.9	21.8	20.8	19.6	17.0		
1950	CFM	2935	2907	2808	2610	2488	2379	2270	2156	2041	1917	1633	1183	
	BKW	1.12	1.11	1.08	1.01	1.00	0.99	0.98	0.96	0.95	0.93	0.88	0.74	
	SONES	32.6	32.3	31.2	29.0	27.7	26.6	25.5	24.5	23.4	22.4	20.2	17.3	
2050	CFM	3086	3066	2972	2783	2648	2544	2441	2335	2226	2117	1859	1523	
	BKW	1.30	1.29	1.26	1.19	1.16	1.15	1.14	1.13	1.11	1.09	1.05	0.95	
	SONES	35.5	35.3	34.2	32.0	30.5	29.4	28.3	27.2	26.2	25.2	23.0	20.4	
2150	CFM	3236	3225	3135	2955	2807	2708	2609	2510	2407	2303	2078	1821	1428
	BKW	1.50	1.49	1.46	1.39	1.34	1.33	1.32	1.31	1.29	1.28	1.23	1.18	1.04
	SONES	38.5	38.4	37.3	35.1	33.4	32.2	31.2	30.1	29.0	28.0	25.9	23.7	20.9

Dimensions :



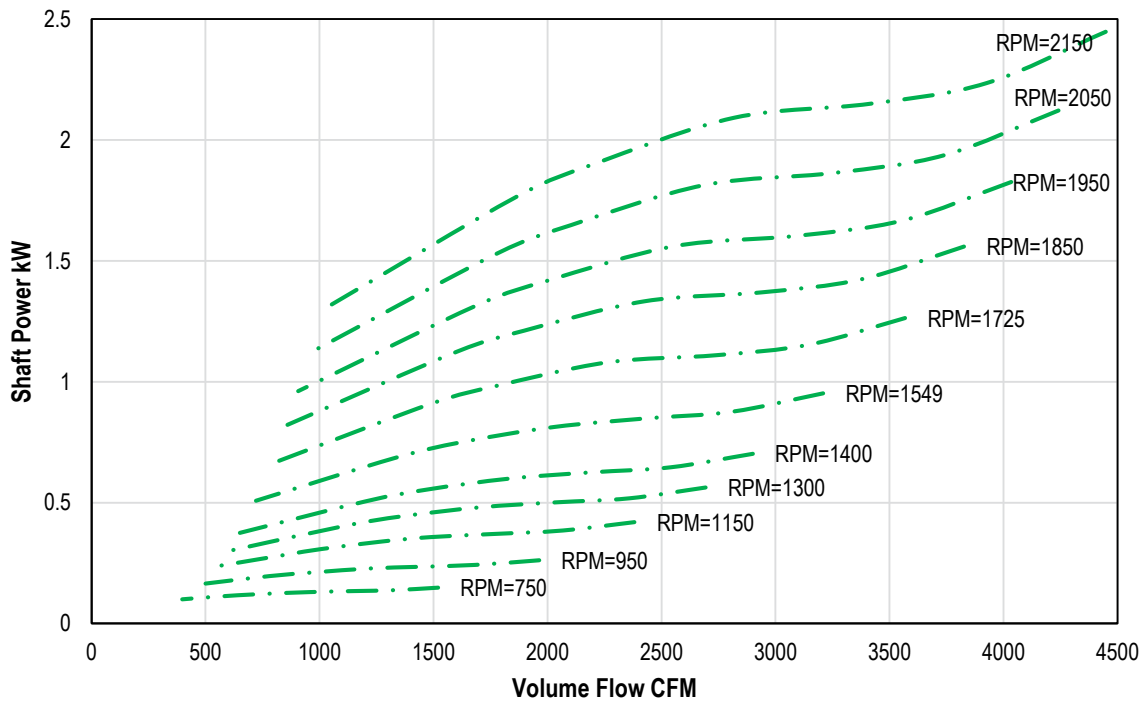
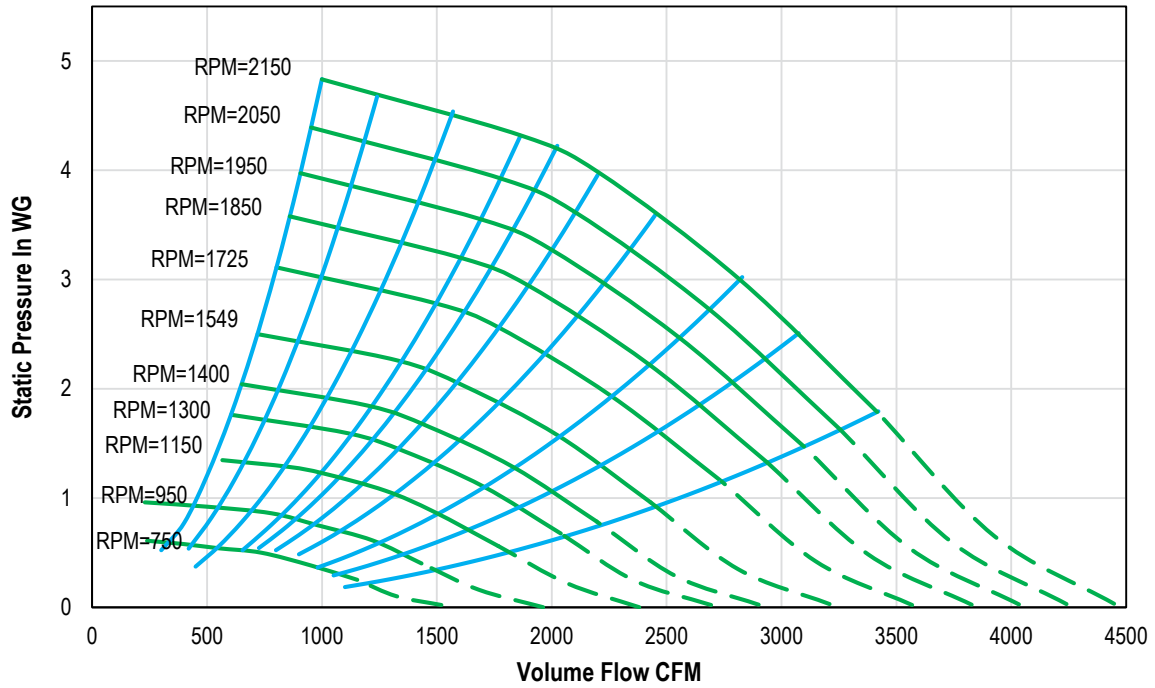
Wheel Diameter D = 355
 Number of Blade Z=10
 Shaft Diameter d = 30
 ^Approximate Unit Weight = 168
 All dimensions in millimeters
 For additional discharge positions see page 43
 ^Weight shown is excluding motor weight, See page 41

Shaded Area Indicates Best Operating Points



Performance certified is for installation type C: Ducted inlet, Free outlet per AMCA Standard 210 . Performance ratings do not include the effects of appurtenances (accessories) .Power ratings (BKW) do not include transmission losses. The Sound ratings shown are loudness values in fan sones at 1.5 m (5 ft) in a hemispherical free field calculated per AMCA International Standard 301 . Values shown are for : Installation Type B : free inlet, Ducted outlet hemispherical sone levels .

SWSI - Centrifugal Fan | HRE 400

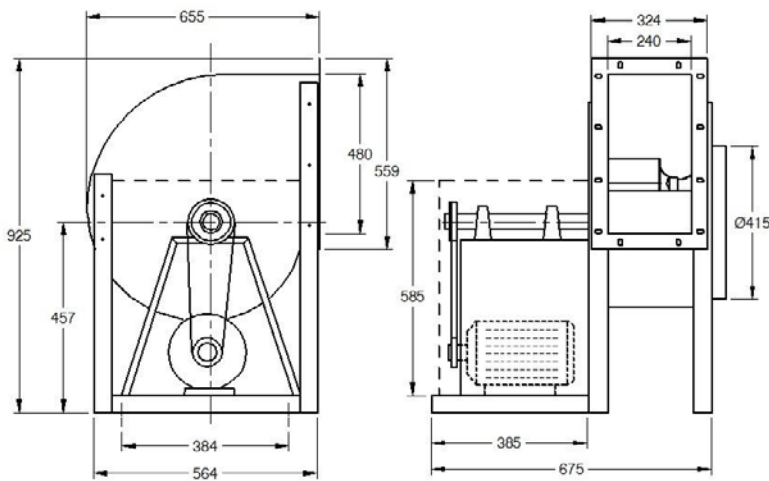


Performance certified is for installation type C: Ducted inlet, Free outlet per AMCA Standard 210 . Performance ratings do not include the effects of appurtenances (accessories) .Power ratings (BKW) do not include transmission losses. The Sound ratings shown are loudness values in fan sones at 1.5 m (5 ft) in a hemispherical free field calculated per AMCA International Standard 301 . Values shown are for : Installation Type B : free inlet, Ducted outlet hemispherical sone levels .

SWSI - Centrifugal Fan | HRE 400

Fan RPM		Static Pressure in Inches wg													
		0	0.125	0.25	0.5	0.75	1	1.25	1.5	2	2.5	3	3.5	4	4.5
750	CFM	1520	1296	1154	736										
	BKW	0.15	0.14	0.13	0.12										
	SONES	11.2	11	11.2	9.2										
950	CFM	1963	1744	1589	1332	981									
	BKW	0.27	0.25	0.24	0.23	0.21									
	SONES	14.7	15.1	14.7	13.7	11.8									
1150	CFM	2382	2202	2040	1820	1598	1349	942							
	BKW	0.42	0.4	0.38	0.37	0.36	0.35	0.3							
	SONES	17.9	18.6	18.1	17.4	16.4	15.1	x							
1300	CFM	2693	2539	2356	2170	1982	1786	1548	1249						
	BKW	0.56	0.54	0.52	0.51	0.5	0.49	0.46	0.43						
	SONES	20.2	21.1	20.5	20	19.3	18.4	17.1	12.6						
1400	CFM	2900	2762	2589	2392	2220	2039	1857	1618	769					
	BKW	0.70	0.68	0.65	0.64	0.63	0.61	0.60	0.57	0.40					
	SONES	21.8	22.8	22.2	21.7	21.1	20.3	19.5	18.1	12.5					
1549	CFM	3209	3090	2935	2717	2561	2404	2239	2075	1643	721				
	BKW	0.95	0.93	0.9	0.87	0.86	0.85	0.83	0.82	0.75	0.51				
	SONES	24.2	25.3	26	24.2	24	23	22.3	22	19.1	12.8				
1725	CFM	3573	3475	3335	3092	2953	2813	2671	2523	2217	1813	1033			
	BKW	1.31	1.29	1.26	1.21	1.19	1.18	1.17	1.15	1.11	1.04	0.75			
	SONES	26.9	28.3	27.9	29	26.7	26.2	24	25	22	21	15.8			
1850	CFM	3827	3728	3605	3369	3238	3108	2977	2838	2551	2221	1833	1011		
	BKW	1.56	1.53	1.49	1.42	1.41	1.39	1.37	1.36	1.34	1.29	1.19	0.88		
	SONES	28.9	30.2	30.0	29.1	28.9	28.5	28.0	27.4	26.0	16.6	21.8	16.2		
1950	CFM	4034	3942	3826	3594	3454	3331	3207	3082	2810	2533	2188	1749		
	BKW	1.83	1.80	1.76	1.68	1.65	1.64	1.62	1.60	1.58	1.55	1.47	1.34		
	SONES	30.5	31.8	31.7	30.9	30.5	30.2	29.7	29.2	27.9	19.0	24.5	21.7		
2050	CFM	4241	4156	4045	3825	3669	3551	3433	3316	3063	2804	2507	2179	1647	
	BKW	2.12	2.09	2.05	1.97	1.93	1.91	1.89	1.87	1.85	1.82	1.76	1.67	1.46	
	SONES	32.0	31.4	30.5	28.9	27.7	26.8	25.9	25.0	23.0	21.1	18.8	16.3	12.3	
2150	CFM	4448	4369	4264	4053	3881	3769	3657	3545	3311	3064	2817	2504	2182	1558
	BKW	2.45	2.42	2.37	2.29	2.23	2.21	2.19	2.17	2.14	2.12	2.09	1.99	1.89	1.60
	SONES	33.6	33.0	32.2	30.6	29.3	28.4	27.6	26.7	24.9	23.0	21.2	18.8	16.3	11.6

Dimensions :



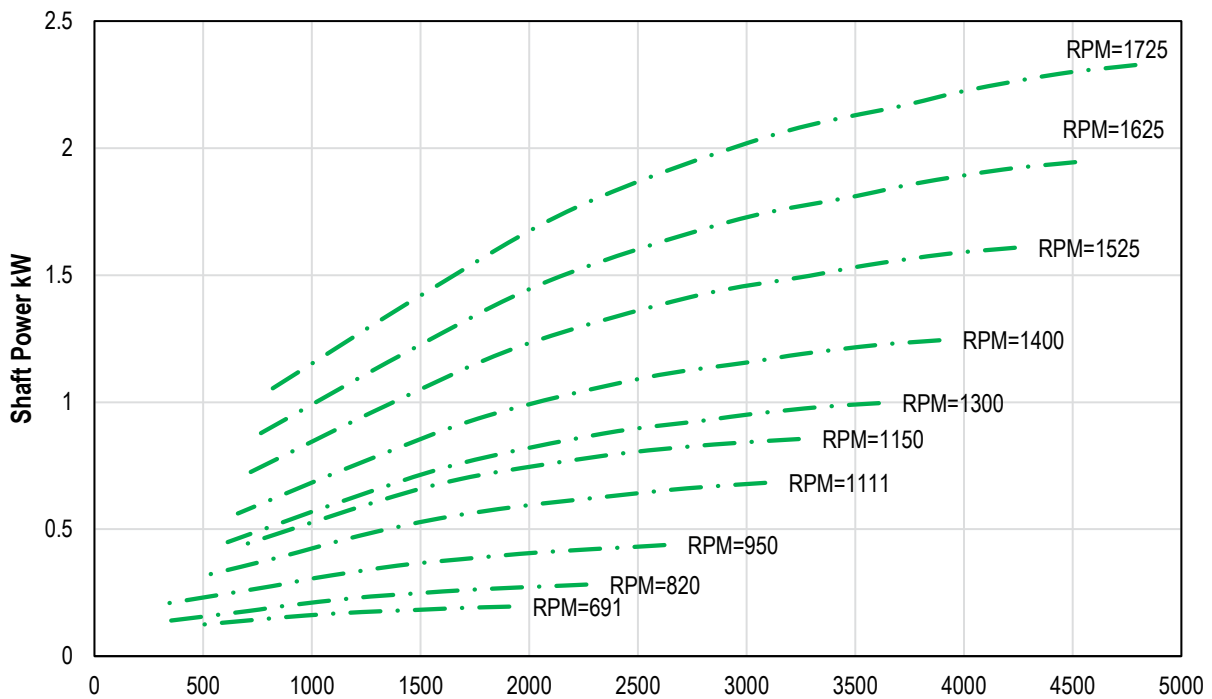
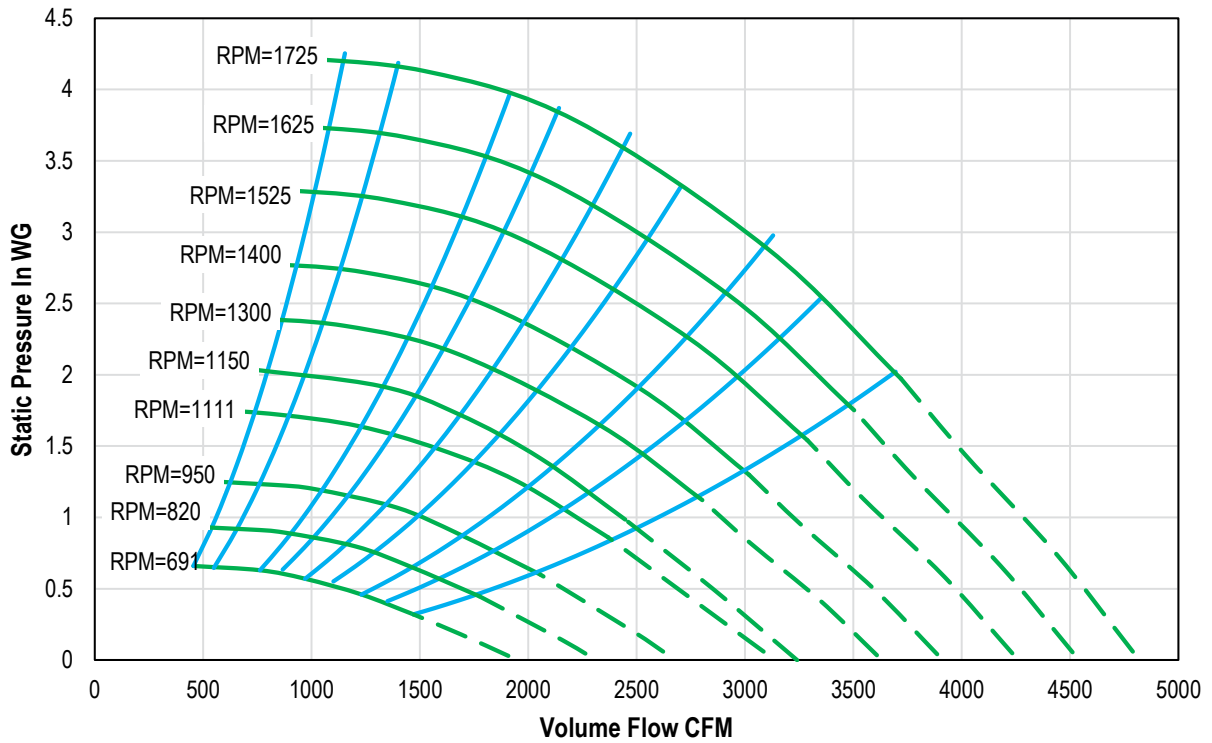
Wheel Diameter D = 400
 Number of Blade Z=10
 Shaft Diameter d = 35
 ^Approximate Unit Weight = 192
 All dimensions in millimeters
 For additional discharge positions see page 43
 ^Weight shown is excluding motor weight, See page 41

Shaded Area Indicates Best Operating Points



Performance certified is for installation type C: Ducted inlet, Free outlet per AMCA Standard 210 . Performance ratings do not include the effects of appurtenances (accessories) .Power ratings (BKW) do not include transmission losses. The Sound ratings shown are loudness values in fan sones at 1.5 m (5 ft) in a hemispherical free field calculated per AMCA International Standard 301 . Values shown are for : Installation Type B : free inlet, Ducted outlet hemispherical sone levels .

SWSI - Centrifugal Fan | HRE 450

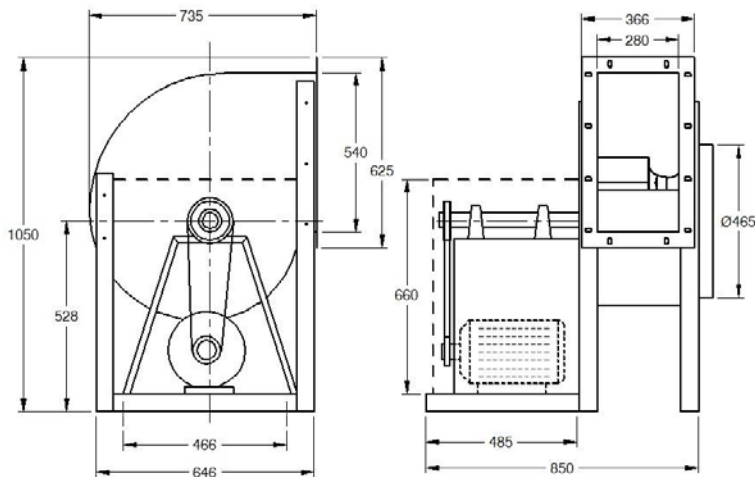


Performance certified is for installation type C: Ducted inlet, Free outlet per AMCA Standard 210 . Performance ratings do not include the effects of appurtenances (accessories) .Power ratings (BKW) do not include transmission losses. The Sound ratings shown are loudness values in fan sones at 1.5 m (5 ft) in a hemispherical free field calculated per AMCA International Standard 301 . Values shown are for : Installation Type B : free inlet, Ducted outlet hemispherical sone levels .

SWSI - Centrifugal Fan | HRE 450

Fan RPM		Static Pressure in Inches WG											
		0	0.25	0.5	0.75	1	1.25	1.5	2	2.5	3	3.5	4
691	CFM	1908	1580	1136									
	BKW	0.19	0.19	0.17									
	SONES	11	9.4	8									
820	CFM	2263	2019	1693	1287								
	BKW	0.28	0.27	0.26	0.24								
	SONES	14.3	11.1	9.1	4.0								
950	CFM	2622	2431	2163	1857	1501	572						
	BKW	0.44	0.43	0.42	0.4	0.37	0.24						
	SONES	17.9	17.9	16.4	14.5	12.3	7.1						
1111	CFM	3086	2915	2691	2467	2219	1953	1539					
	BKW	0.68	0.67	0.66	0.64	0.62	0.59	0.53					
	SONES	23	23.1	24	22	19.4	16.8	15.5					
1150	CFM	3241	3027	2811	2582	2345	2095	1775	919				
	BKW	0.71	0.7	0.69	0.67	0.65	0.63	0.59	0.50				
	SONES	24.8	24.3	23	21.4	19.8	18.1	15.9	10.8				
1300	CFM	3609	3462	3282	3081	2892	2688	2464	1867				
	BKW	1.00	0.99	0.98	0.96	0.94	0.91	0.89	0.79				
	SONES	29.2	29.4	28.3	26.9	25.5	24.0	22.3	17.8				
1400	CFM	3887	3753	3593	3407	3224	3053	2853	2398	1779			
	BKW	1.24	1.24	1.22	1.21	1.19	1.16	1.14	1.07	0.94			
	SONES	32.8	33.1	33	30.7	28	28	26.4	21	18.1			
1525	CFM	4234	4116	3970	3807	3636	3472	3315	2939	2471	1861		
	BKW	1.61	1.60	1.59	1.57	1.55	1.53	1.50	1.44	1.35	1.18		
	SONES	37.4	37.8	36.9	35.7	34.3	32.9	31.7	28.5	24.6	19.8		
1625	CFM	4512	4404	4267	4122	3962	3801	3652	3326	2967	2464	1784	
	BKW	1.95	1.94	1.92	1.91	1.89	1.86	1.84	1.78	1.72	1.58	1.35	
	SONES	41.2	41.7	40.9	39.8	38.5	37.1	35.8	33.0	29.9	25.5	20.0	
1725	CFM	4789	4692	4563	4433	4282	4131	3983	3702	3364	2991	2498	1782
	BKW	2.33	2.32	2.30	2.29	2.27	2.24	2.22	2.16	2.10	2.01	1.86	1.56
	SONES	45.2	45.8	45.0	44.1	42.7	41.4	40.1	37.6	34.5	31.1	26.7	20.9

Dimensions :



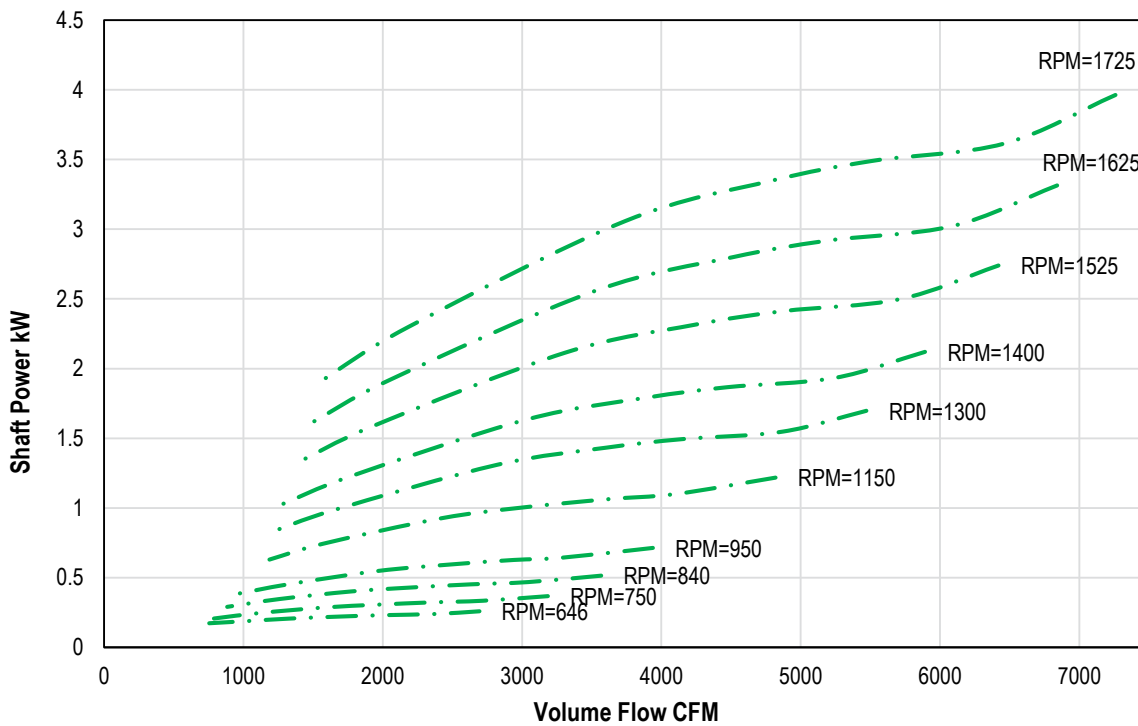
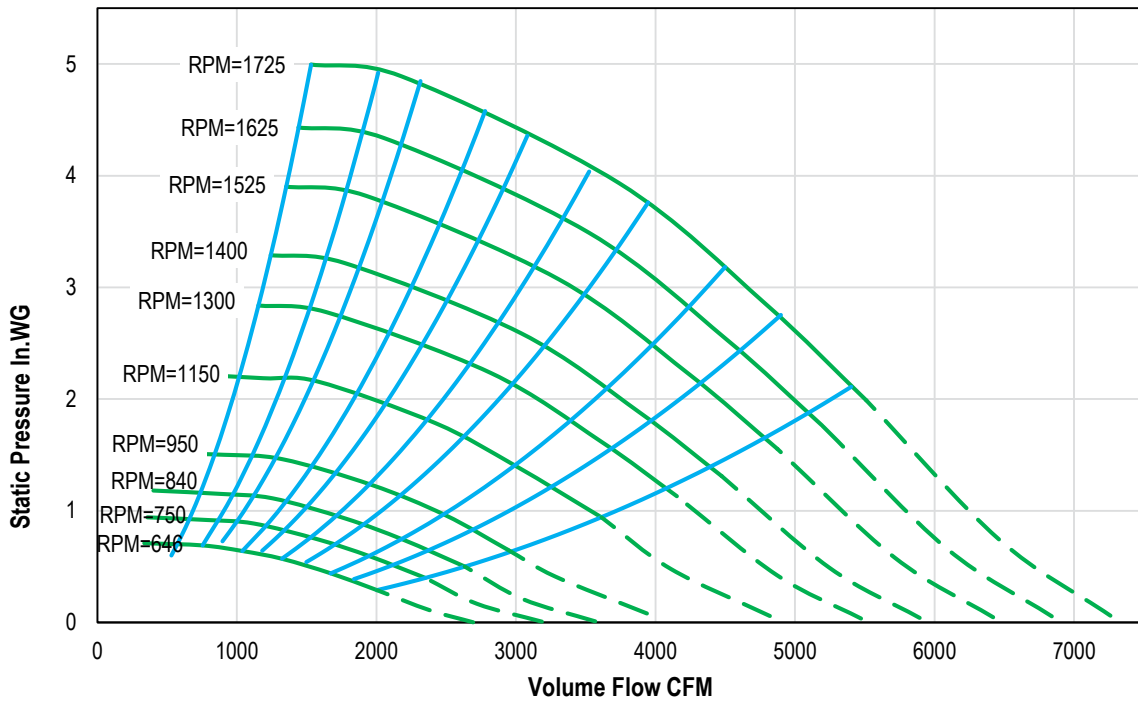
Wheel Diameter D = 450
 Number of Blade Z=10
 Shaft Diameter d = 35
 ^Approximate Unit Weight = 216
 All dimensions in millimeters
 For additional discharge positions see page 43
 ^Weight shown is excluding motor weight, See page 41

Shaded Area Indicates Best Operating Points



Performance certified is for installation type C: Ducted inlet, Free outlet per AMCA Standard 210 . Performance ratings do not include the effects of appurtenances (accessories) .Power ratings (BKW) do not include transmission losses. The Sound ratings shown are loudness values in fan sones at 1.5 m (5 ft) in a hemispherical free field calculated per AMCA International Standard 301 . Values shown are for : Installation Type B : free inlet, Ducted outlet hemispherical sone levels .

SWSI - Centrifugal Fan | HRE 500

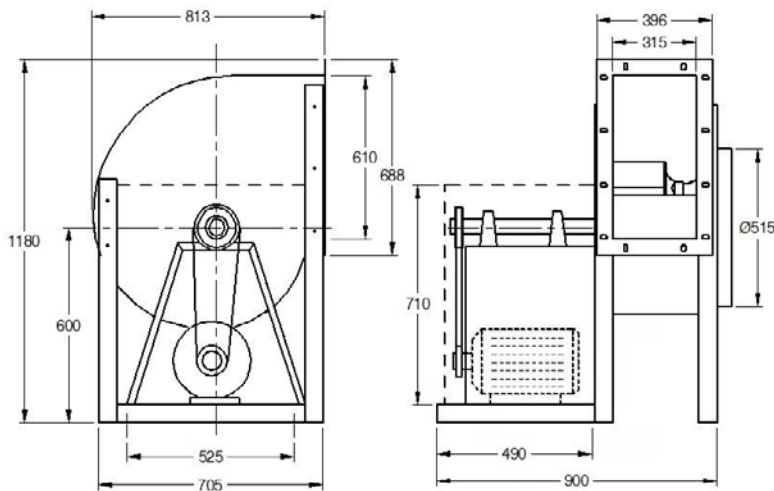


Performance certified is for installation type C: Ducted inlet, Free outlet per AMCA Standard 210 . Performance ratings do not include the effects of appurtenances (accessories) .Power ratings (BKW) do not include transmission losses. The Sound ratings shown are loudness values in fan sones at 1.5 m (5 ft) in a hemispherical free field calculated per AMCA International Standard 301 . Values shown are for : Installation Type B : free inlet, Ducted outlet hemispherical sone levels .

SWSI - Centrifugal Fan | HRE 500

Fan RPM		Static Pressure in Inches WG												
		0	0.25	0.5	0.75	1	1.25	1.5	2	2.5	3	3.5	4	4.5
646	CFM	2694	2087	1512										
	BKW	0.25	0.23	0.21										
	SONES	11.1	9.6	8.3										
750	CFM	3185	2587	2141	1558									
	BKW	0.37	0.33	0.31	0.28									
	SONES	14.4	12.6	11.6	10									
840	CFM	3568	2989	2631	2169	1574								
	BKW	0.51	0.47	0.45	0.43	0.38								
	SONES	17.2	15.5	14.2	13.2	11.5								
950	CFM	3939	3601	3155	2797	2415	1911	907						
	BKW	0.71	0.68	0.64	0.62	0.59	0.54	0.37						
	SONES	20.1	19.7	17.7	17.2	15.6	14.7	11.4						
1150	CFM	4820	4496	4087	3817	3533	3199	2849	1935					
	BKW	1.22	1.16	1.1	1.08	1.05	1.02	0.98	0.82					
	SONES	27.7	27	25.2	24.6	23.8	22.6	21.5	18.4					
1300	CFM	5472	5138	4792	4538	4285	4020	3743	3120	2242				
	BKW	1.70	1.61	1.54	1.52	1.50	1.48	1.45	1.36	1.15				
	SONES	33.8	32.9	31.3	30.6	29.8	28.9	28	25.8	22.5				
1400	CFM	5893	5591	5235	5000	4765	4530	4278	3742	3144	2212			
	BKW	2.12	2.03	1.93	1.91	1.89	1.87	1.84	1.76	1.65	1.37			
	SONES	38	37.2	37	34.7	34	33.3	32.4	27	28.3	26			
1525	CFM	6419	6151	5821	5568	5352	5136	4920	4451	3937	3388	2520		
	BKW	2.74	2.65	2.53	2.48	2.46	2.44	2.42	2.35	2.25	2.13	1.81		
	SONES	43.5	42.9	41.2	40.2	39.5	38.8	38.0	36.3	34.3	32.3	28.6		
1625	CFM	6840	6597	6287	6015	5812	5610	5407	4984	4540	4029	3506	2640	
	BKW	3.31	3.22	3.10	3.01	2.99	2.97	2.94	2.88	2.80	2.68	2.55	2.17	
	SONES	48.1	47.7	46.0	44.7	44.0	43.3	42.6	41.1	39.4	37.3	35.4	31.5	
1725	CFM	7261	7040	6748	6458	6267	6076	5885	5503	5084	4646	4161	3630	2814
	BKW	3.96	3.87	3.74	3.61	3.59	3.56	3.54	3.49	3.41	3.31	3.17	3.00	2.61
	SONES	52.9	52.6	51.0	49.4	48.7	48.1	47.4	46.0	44.4	42.6	40.6	38.5	34.7

Dimensions :



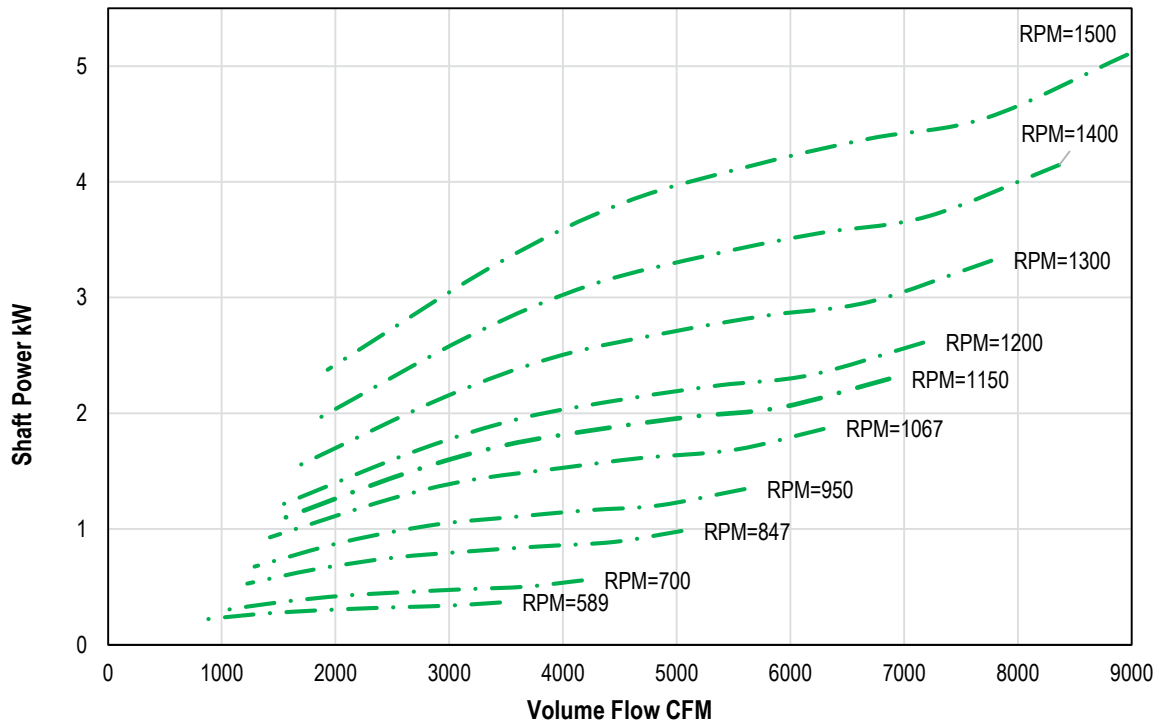
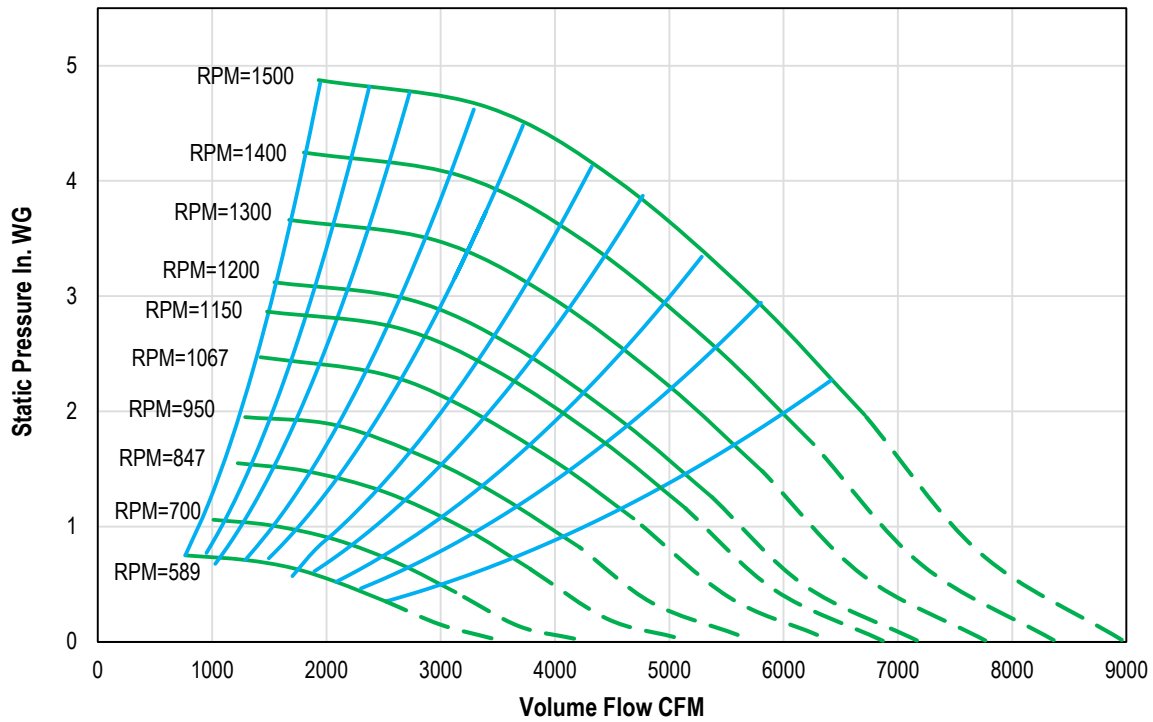
Wheel Diameter D = 500
 Number of Blade Z=10
 Shaft Diameter d = 35
 ^Approximate Unit Weight = 228
 All dimensions in millimeters
 For additional discharge positions see page 43
 ^Weight shown is excluding motor weight, See page 41

Shaded Area Indicates Best Operating Points



Performance certified is for installation type C: Ducted inlet, Free outlet per AMCA Standard 210 . Performance ratings do not include the effects of appurtenances (accessories) .Power ratings (BKW) do not include transmission losses. The Sound ratings shown are loudness values in fan sones at 1.5 m (5 ft) in a hemispherical free field calculated per AMCA International Standard 301 . Values shown are for : Installation Type B : free inlet, Ducted outlet hemispherical sone levels .

SWSI - Centrifugal Fan | HRE 560

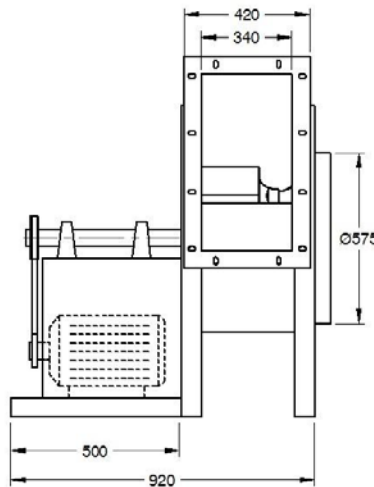
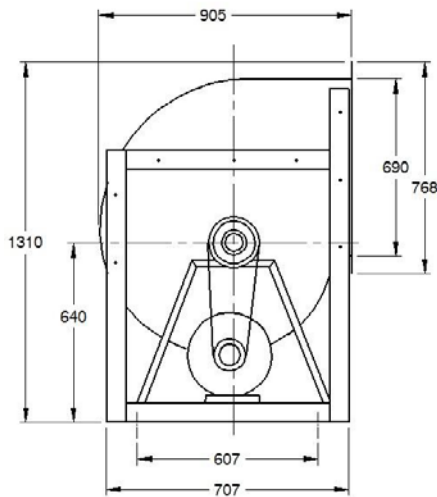


Performance certified is for installation type C: Ducted inlet, Free outlet per AMCA Standard 210 . Performance ratings do not include the effects of appurtenances (accessories) .Power ratings (BKW) do not include transmission losses. The Sound ratings shown are loudness values in fan sones at 1.5 m (5 ft) in a hemispherical free field calculated per AMCA International Standard 301 . Values shown are for : Installation Type B : free inlet, Ducted outlet hemispherical sone levels .

SWSI - Centrifugal Fan | HRE 560

Fan RPM		Static Pressure in Inches wg												
		0	0.25	0.5	0.75	1	1.25	1.5	2	2.5	3	3.5	4	4.5
589	CFM	3445	2757	2136										
	BKW	0.37	0.33	0.31										
	SONES	9.9	7.2	5.4										
700	CFM	4167	3469	2991	2443	1560								
	BKW	0.55	0.49	0.47	0.45	0.37								
	SONES	14.4	10.8	9.1	7.6	5.6								
847	CFM	5042	4378	3989	3590	3172	2620	1655						
	BKW	0.98	0.88	0.86	0.83	0.81	0.76	0.62						
	SONES	21.1	16.4	14.9	12.9	11.9	10.4	9.4						
950	CFM	5598	5086	4635	4308	3933	3540	3062						
	BKW	1.35	1.25	1.19	1.17	1.14	1.1	1.06						
	SONES	26	22.3	21	18	17	15	13						
1067	CFM	6293	5846	5383	5078	4773	4437	4091	3261					
	BKW	1.87	1.76	1.68	1.65	1.62	1.58	1.54	1.43					
	SONES	32.8	29.1	30	24	24	20.9	20	17.3					
1150	CFM	6869	6352	5868	5593	5317	5028	4716	4023	3141				
	BKW	2.3	2.16	2.05	2.02	1.99	1.96	1.92	1.81	1.63				
	SONES	39.1	34.3	30.3	28.6	27	25.5	24	21	17.8				
1200	CFM	7168	6674	6170	5906	5642	5379	5080	4458	3727	2489			
	BKW	2.61	2.47	2.33	2.3	2.27	2.24	2.2	2.11	1.97	1.59			
	SONES	42.6	37.7	34	31.6	28	28.6	26.9	21	21.1	19.2			
1300	CFM	7765	7313	6838	6525	6282	6038	5792	5239	4623	3948	2848		
	BKW	3.32	3.17	3.01	2.94	2.91	2.88	2.84	2.75	2.63	2.49	2.09		
	SONES	50.0	45.1	40.5	37.9	36.3	34.8	33.4	30.3	27.3	24.6	20.5		
1400	CFM	8363	7946	7505	7136	6909	6683	6457	5970	5457	4853	4216	3261	
	BKW	4.14	3.98	3.81	3.69	3.66	3.62	3.59	3.50	3.40	3.26	3.10	2.70	
	SONES	58.0	53.2	48.4	44.9	43.2	41.6	40.1	37.1	34.3	31.2	28.5	24.7	
1500	CFM	8960	8574	8163	7751	7528	7317	7106	6680	6201	5718	5134	4549	3657
	BKW	5.10	4.93	4.75	4.56	4.52	4.48	4.44	4.37	4.26	4.15	3.99	3.82	3.40
	SONES	66.6	61.8	57.0	52.5	50.6	49.0	47.4	44.6	41.5	38.8	35.6	33.0	29.1

Dimensions :



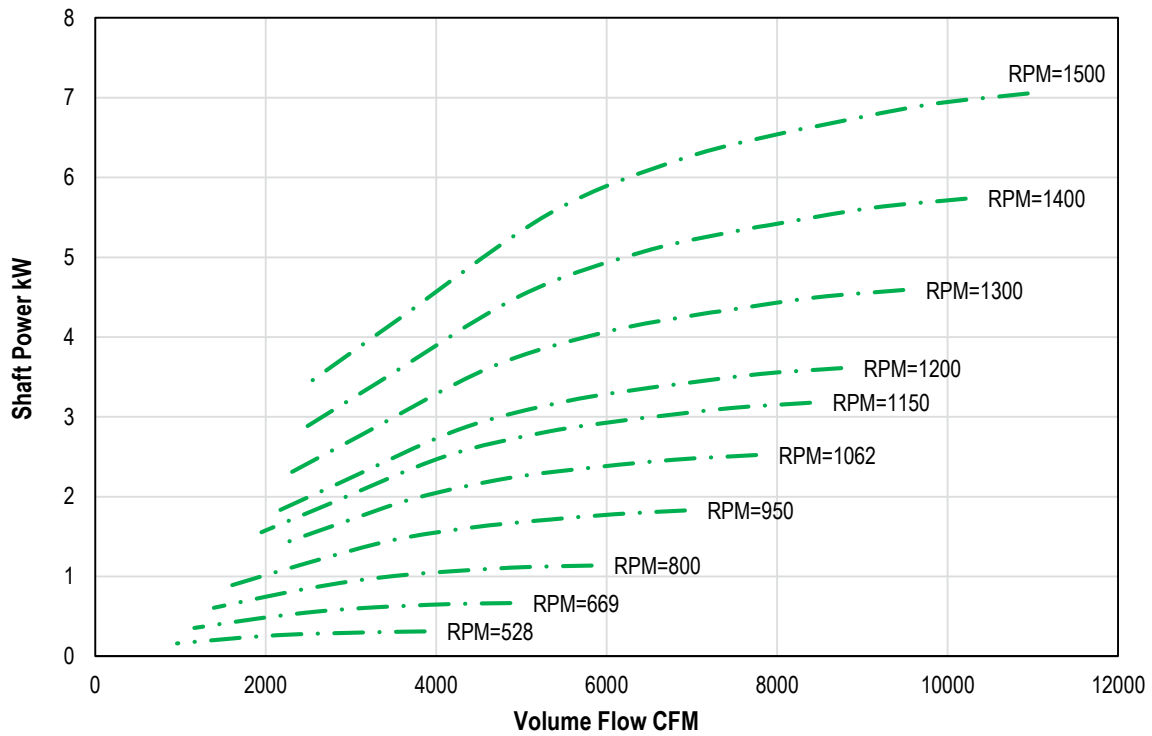
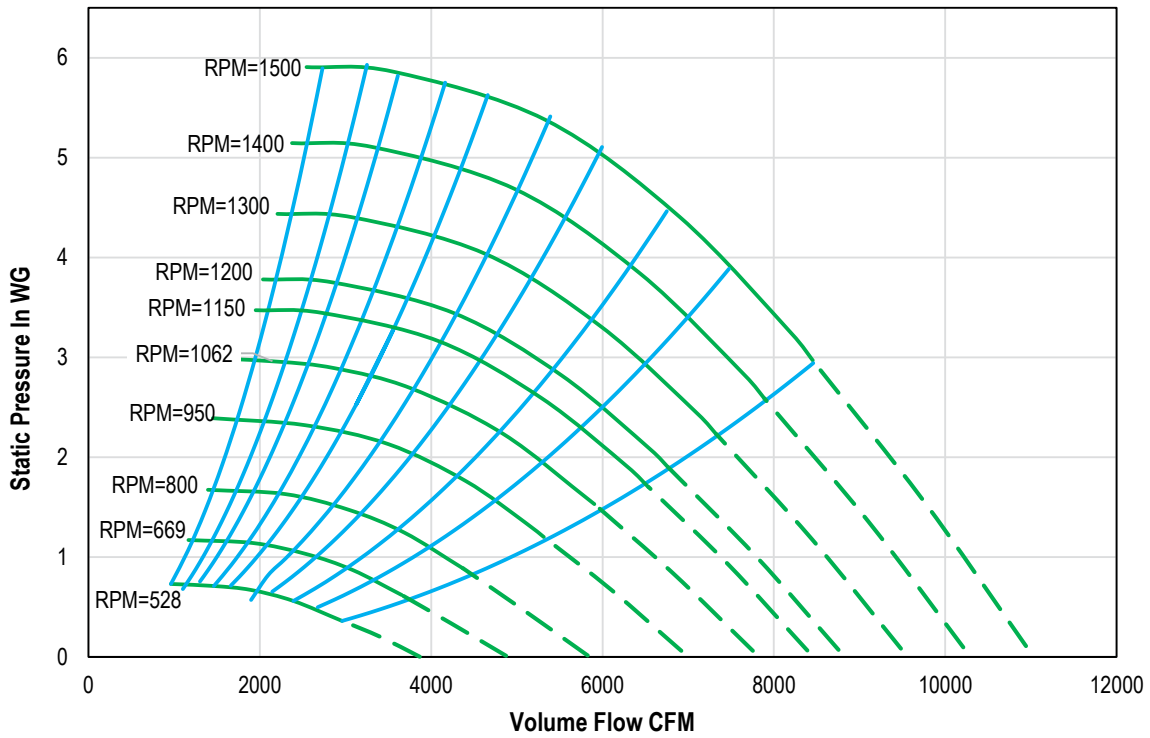
Wheel Diameter D = 560
 Number of Blade Z=10
 Shaft Diameter d = 35
 ^Approximate Unit Weight = 228
 All dimensions in millimeters
 For additional discharge positions see page 43
 ^Weight shown is excluding motor weight, See page 41

Shaded Area Indicates Best Operating Points



Performance certified is for installation type C: Ducted inlet, Free outlet per AMCA Standard 210 . Performance ratings do not include the effects of appurtenances (accessories) .Power ratings (BKW) do not include transmission losses. The Sound ratings shown are loudness values in fan sones at 1.5 m (5 ft) in a hemispherical free field calculated per AMCA International Standard 301 . Values shown are for : Installation Type B : free inlet, Ducted outlet hemispherical sone levels .

SWSI - Centrifugal Fan | HRE 630

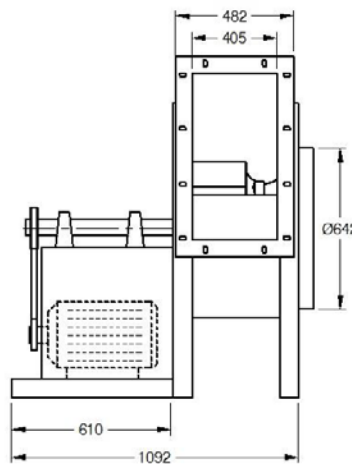
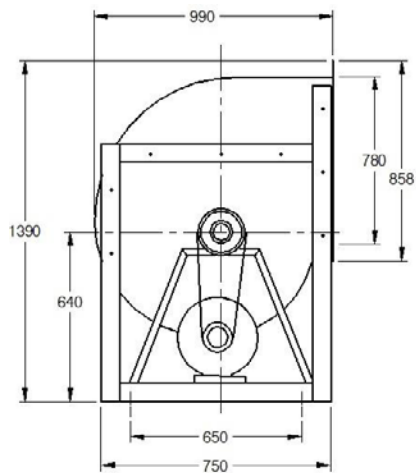


Performance certified is for installation type C: Ducted inlet, Free outlet per AMCA Standard 210 . Performance ratings do not include the effects of appurtenances (accessories) .Power ratings (BKW) do not include transmission losses. The Sound ratings shown are loudness values in fan sones at 1.5 m (5 ft) in a hemispherical free field calculated per AMCA International Standard 301 . Values shown are for : Installation Type B : free inlet, Ducted outlet hemispherical sone levels .

SWSI - Centrifugal Fan | HRE 630

Fan RPM		Static Pressure in Inches wg														
		0	0.25	0.5	0.75	1	1.25	1.5	2	2.5	3	3.5	4	4.5	5	5.5
528	CFM	3865	3264	2561												
	BKW	0.31	0.3	0.28												
	SONES	11	10.2	9.6												
669	CFM	4872	4399	3897	3357	2641										
	BKW	0.67	0.66	0.64	0.61	0.56										
	SONES	15.4	14.2	13.3	12.6	11.9										
800	CFM	5826	5437	5024	4601	4153	3669	2909								
	BKW	1.14	1.13	1.12	1.09	1.06	1.02	0.92								
	SONES	20.9	19.1	17.3	16.3	15.4	14.6	13.6								
950	CFM	6918	6663	6329	5983	5611	5239	4838	3819							
	BKW	1.83	1.81	1.79	1.77	1.74	1.7	1.66	1.51							
	SONES	29.1	27.9	26.3	24.8	23.3	22.1	21	18.8							
1062	CFM	7755	7527	7227	6927	6607	6275	5944	5193	4209						
	BKW	2.52	2.51	2.49	2.47	2.44	2.41	2.38	2.28	2.09						
	SONES	36.9	35.5	33.7	31.9	30.3	28.7	27.3	24.6	22						
1150	CFM	8388	8189	7921	7653	7375	7075	6775	6150	5421	4428					
	BKW	3.18	3.16	3.15	3.13	3.1	3.06	3.03	2.95	2.83	2.59					
	SONES	43.7	42.4	40.4	38.6	36.8	35	33.4	30.5	27.7	24.6					
1200	CFM	8753	8568	8311	8054	7798	7510	7223	6648	5967	5157	3996				
	BKW	3.61	3.6	3.58	3.56	3.54	3.5	3.46	3.38	3.27	3.09	2.71				
	SONES	48	46.7	44.6	42.7	40.9	39	37.2	34.2	31	28	24.8				
1300	CFM	9482	9323	9086	8849	8612	8366	8101	7571	7024	6379	5625	4696			
	BKW	4.59	4.58	4.56	4.53	4.51	4.48	4.44	4.36	4.27	4.14	3.94	3.64			
	SONES	57.5	56.3	54.0	51.9	49.9	47.9	45.9	42.2	39.0	35.7	32.4	29.3			
1400	CFM	10212	10075	9855	9635	9415	9195	8960	8468	7975	7444	6845	6160	5297	3733	
	BKW	5.73	5.72	5.70	5.67	5.65	5.63	5.59	5.50	5.41	5.31	5.17	4.97	4.64	3.70	
	SONES	68.3	67.1	64.7	62.4	60.2	58.1	56.0	51.8	48.1	44.5	41.0	37.6	34.0	29.2	
1500	CFM	10941	10825	10620	10415	10209	10004	9798	9345	8885	8425	7913	7354	6748	5943	4880
	BKW	7.05	7.04	7.01	6.99	6.96	6.94	6.91	6.83	6.73	6.63	6.51	6.36	6.17	5.82	5.21
	SONES	80.3	79.2	76.7	74.2	71.8	69.5	67.4	62.7	58.5	54.7	50.9	47.2	43.7	39.6	35.4

Dimensions:



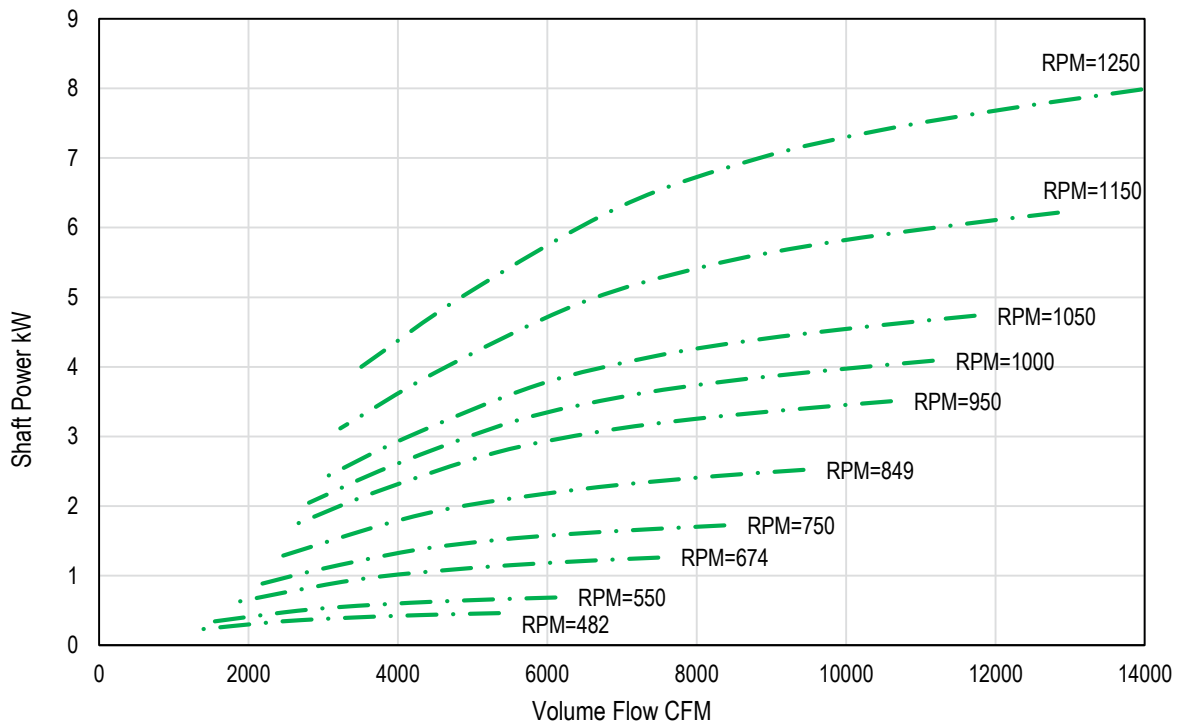
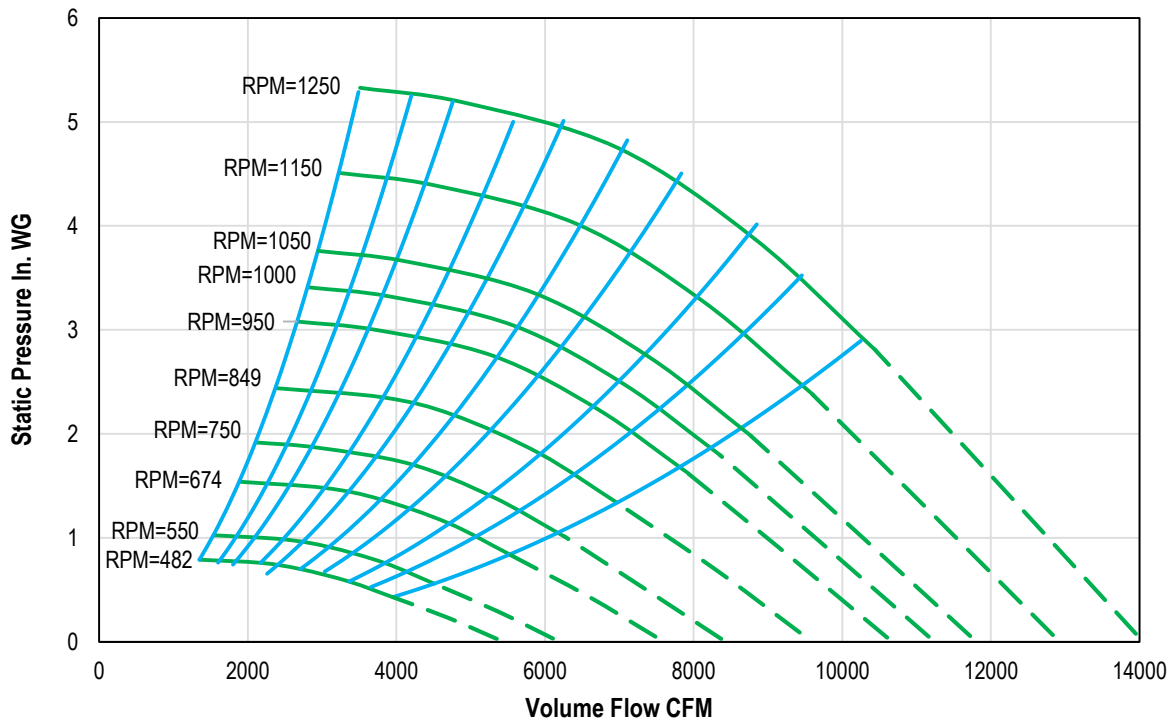
Wheel Diameter D = 630
 Number of Blade Z=10
 Shaft Diameter d = 40
 ^Approximate Unit Weight = 280
 All dimensions in millimeters
 For additional discharge positions see page 43
 ^Weight shown is excluding motor weight, See page 41

Shaded Area Indicates Best Operating Points



Performance certified is for installation type C: Ducted inlet, Free outlet per AMCA Standard 210 . Performance ratings do not include the effects of appurtenances (accessories) .Power ratings (BKW) do not include transmission losses. The Sound ratings shown are loudness values in fan sones at 1.5 m (5 ft) in a hemispherical free field calculated per AMCA International Standard 301 . Values shown are for : Installation Type B : free inlet, Ducted outlet hemispherical sone levels .

SWSI - Centrifugal Fan | HRE 710

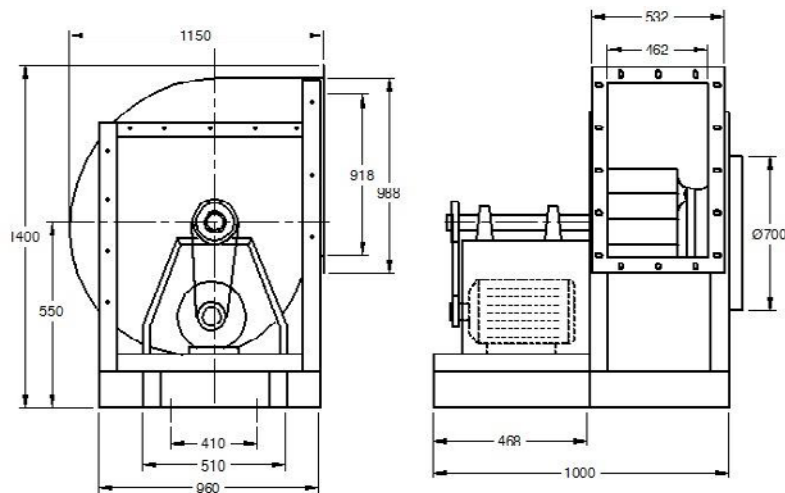


Performance certified is for installation type C: Ducted inlet, Free outlet per AMCA Standard 210 . Performance ratings do not include the effects of appurtenances (accessories) .Power ratings (BKW) do not include transmission losses. The Sound ratings shown are loudness values in fan sones at 1.5 m (5 ft) in a hemispherical free field calculated per AMCA International Standard 301 . Values shown are for : Installation Type B : free inlet, Ducted outlet hemispherical sone levels .

SWSI - Centrifugal Fan | HRE 710

Fan RPM		Static Pressure in Inches wg													
		0	0.25	0.5	0.75	1	1.25	1.5	2	2.5	3	3.5	4	4.5	5
482	CFM	5352	4627	3677	2261										
	BKW	0.46	0.44	0.41	0.33										
	SONES	11.2	9.9	8.4	6.3										
550	CFM	6107	5490	4701	3871	2140									
	BKW	0.68	0.67	0.63	0.59	0.43									
	SONES	13.7	12.6	11.3	10.2	7.5									
674	CFM	7484	7019	6419	5763	5089	4267	2655							
	BKW	1.26	1.24	1.21	1.17	1.12	1.04	0.79							
	SONES	18.7	17.9	16.9	15.9	15.1	14.1	11.5							
750	CFM	8371	7898	7364	6826	6289	5661	4925							
	BKW	1.72	1.70	1.67	1.63	1.60	1.54	1.46							
	SONES	22.2	21.2	20.3	19.6	19	18.3	17.5							
849	CFM	9429	9129	8661	8184	7667	7151	6613	5338						
	BKW	2.52	2.5	2.46	2.42	2.37	2.32	2.26	2.07						
	SONES	26.6	26.2	25.4	24.8	24.1	23.6	23.1	21.9						
950	CFM	10603	10251	9832	9413	8989	8562	8135	7178	5990	3724				
	BKW	3.5	3.47	3.44	3.4	3.36	3.31	3.27	3.14	2.91	2.21				
	SONES	31.9	31.1	30.4	29.9	29.4	29.1	28.9	28.3	27.3	23.9				
1000	CFM	11162	10842	10441	10041	9640	9236	8833	7969	7006	5690				
	BKW	4.09	4.06	4.02	3.98	3.94	3.89	3.84	3.73	3.57	3.25				
	SONES	34.4	33.8	33.1	32.6	32.2	31.9	31.7	31.3	30.9	29.8				
1050	CFM	11720	11423	11042	10660	10279	9895	9511	8738	7834	6745	5024			
	BKW	4.73	4.70	4.66	4.62	4.58	4.53	4.48	4.38	4.22	3.97	3.38			
	SONES	37.1	36.6	35.9	35.4	35.1	34.8	34.6	34.4	34.1	33.4	31.2			
1150	CFM	12836	12580	12232	11884	11536	11187	10837	10135	9404	8579	7613	6469	2698	
	BKW	6.22	6.18	6.14	6.09	6.05	6.00	5.95	5.84	5.72	5.54	5.29	4.92	2.83	
	SONES	42.6	42.2	41.6	41.2	40.9	40.7	40.5	40.5	40.5	40.5	40.2	39.6	32.3	
1250	CFM	13952	13732	13412	13092	12772	12451	12130	11485	10840	10151	9392	8560	7507	5793
	BKW	7.98	7.95	7.90	7.85	7.80	7.75	7.70	7.58	7.47	7.32	7.14	6.90	6.50	5.58
	SONES	48.4	48.1	47.6	47.2	47.0	46.8	46.7	46.7	46.9	47.2	47.4	47.6	47.1	44.8

Dimensions :



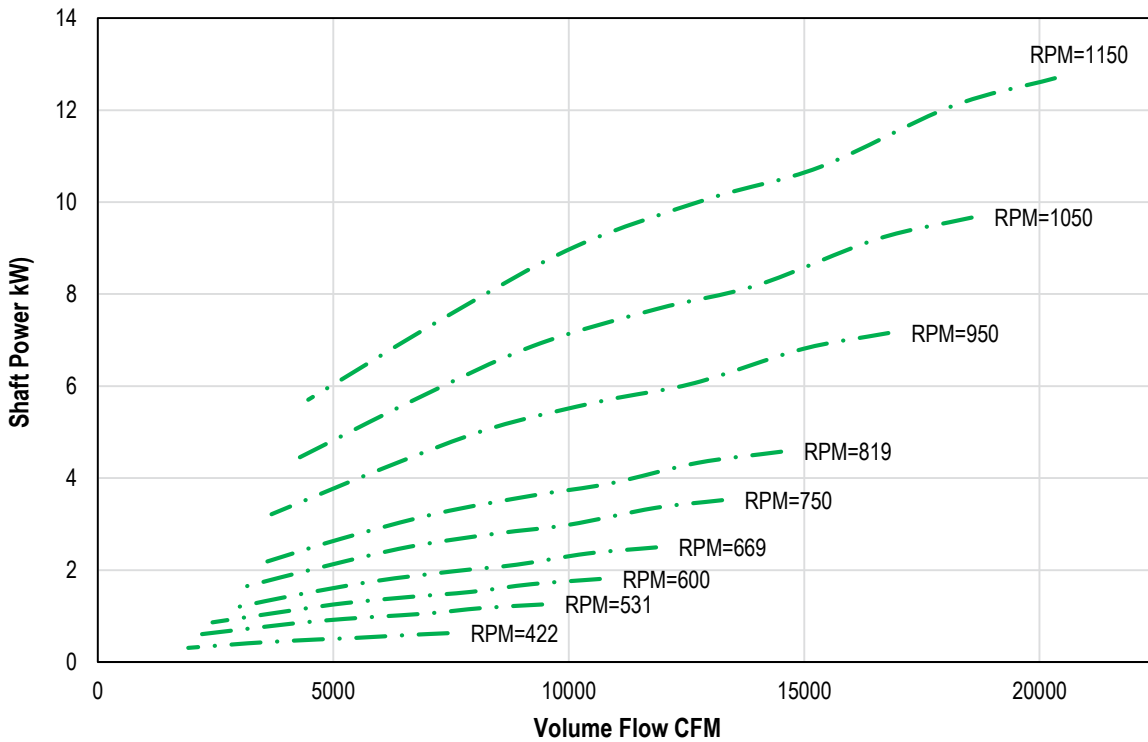
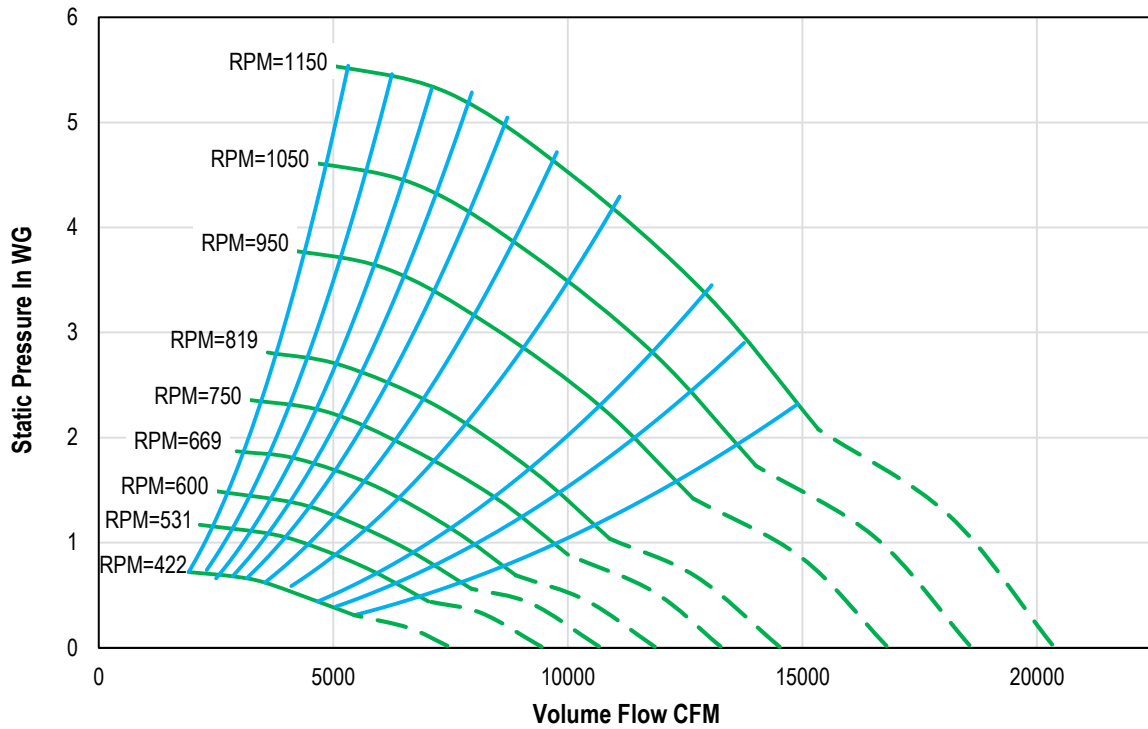
Wheel Diameter D = 710
 Number of Blade Z=10
 Shaft Diameter d = 50
 ^Approximate Unit Weight = 310
 All dimensions in millimeters
 For additional discharge positions see page 43
 ^Weight shown is excluding motor weight, See page 41

Shaded Area indicates Best Operating Points



Performance certified is for installation type C: Ducted inlet, Free outlet per AMCA Standard 210 . Performance ratings do not include the effects of appurtenances (accessories) .Power ratings (BKW) do not include transmission losses. The Sound ratings shown are loudness values in fan sones at 1.5 m (5 ft) in a hemispherical free field calculated per AMCA International Standard 301 . Values shown are for : Installation Type B : free inlet, Ducted outlet hemispherical sone levels .

SWSI - Centrifugal Fan | HRE 800

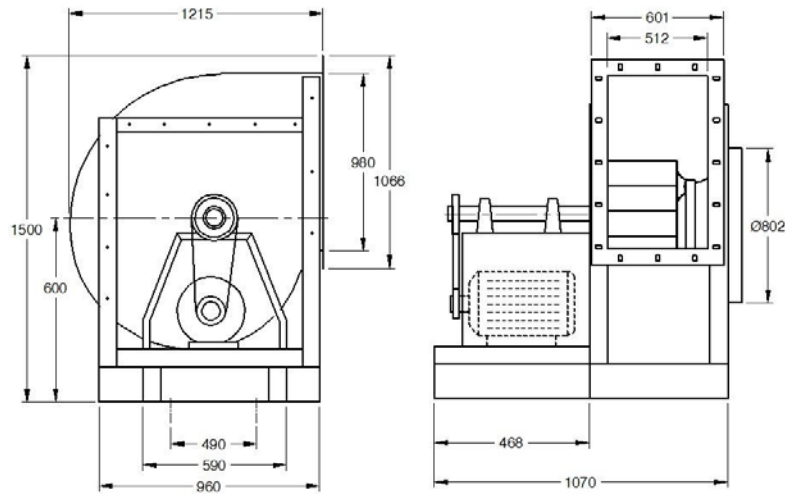


Performance certified is for installation type C: Ducted inlet, Free outlet per AMCA Standard 210 . Performance ratings do not include the effects of appurtenances (accessories) .Power ratings (BKW) do not include transmission losses. The Sound ratings shown are loudness values in fan sones at 1.5 m (5 ft) in a hemispherical free field calculated per AMCA International Standard 301 . Values shown are for : Installation Type B : free inlet, Ducted outlet hemispherical sone levels .

SWSI - Centrifugal Fan | HRE 800

Fan RPM		Static Pressure in Inches wg													
		0	0.25	0.5	0.75	1	1.25	1.5	2	2.5	3	3.5	4	4.5	5
422	CFM	7432	6027	4290											
	BKW	0.63	0.56	0.47											
	SONES	12.9	10.9	8.2											
531	CFM	9436	8476	6782	5731	4294									
	BKW	1.25	1.19	1.04	0.97	0.85									
	SONES	18	16.9	15.9	13.9	10.4									
600	CFM	10662	9822	8502	7258	6275	5027								
	BKW	1.81	1.74	1.60	1.47	1.38	1.25								
	SONES	21.40	20.30	17.80	15.60	14.10	12.10								
669	CFM	11851	11056	10080	8704	7932	7042	6044							
	BKW	2.49	2.42	2.31	2.1	2.01	1.91	1.78							
	SONES	24.8	23.8	22	19.4	18.4	16.6	14.2							
750	CFM	13288	12586	11860	10651	9615	8921	8152	6193						
	BKW	3.51	3.43	3.35	3.12	2.94	2.84	2.73	2.39						
	SONES	29.1	28.2	27	24.4	22.4	21.3	20.1	16.8						
819	CFM	14510	13872	13207	12370	11091	10353	9718	8202	6159					
	BKW	4.58	4.49	4.4	4.25	3.94	3.8	3.7	3.42	2.95					
	SONES	32.9	32.2	32	29.4	29	26	24.1	21	18					
950	CFM	16789	16292	15751	15211	14397	13369	12490	11365	10071	8546	6564			
	BKW	7.16	7.06	6.96	6.86	6.62	6.29	6.03	5.81	5.52	5.14	4.41			
	SONES	40.3	39.9	39.1	38	36.4	34	32	29	27.8	25	21.4			
1050	CFM	18556	18115	17626	17137	16648	15807	14877	13464	12445	11281	9901	8275	5770	
	BKW	9.66	9.56	9.45	9.33	9.22	8.90	8.54	8.06	7.81	7.50	7.07	6.42	5.21	
	SONES	46.3	46.1	45.4	44.5	43.7	41.7	39.4	36.3	34.6	32.4	29.8	26.7	21.9	
1150	CFM	20323	19929	19483	19036	18590	18143	17311	15612	14558	13629	12604	11344	10070	8381
	BKW	12.69	12.58	12.46	12.33	12.21	12.09	11.70	10.89	10.54	10.27	9.94	9.48	9.00	8.06
	SONES	52.6	52.5	51.8	51.1	50.3	49.5	47.4	43.1	41.1	39.4	37.5	35.0	32.6	29.2

Dimensions :



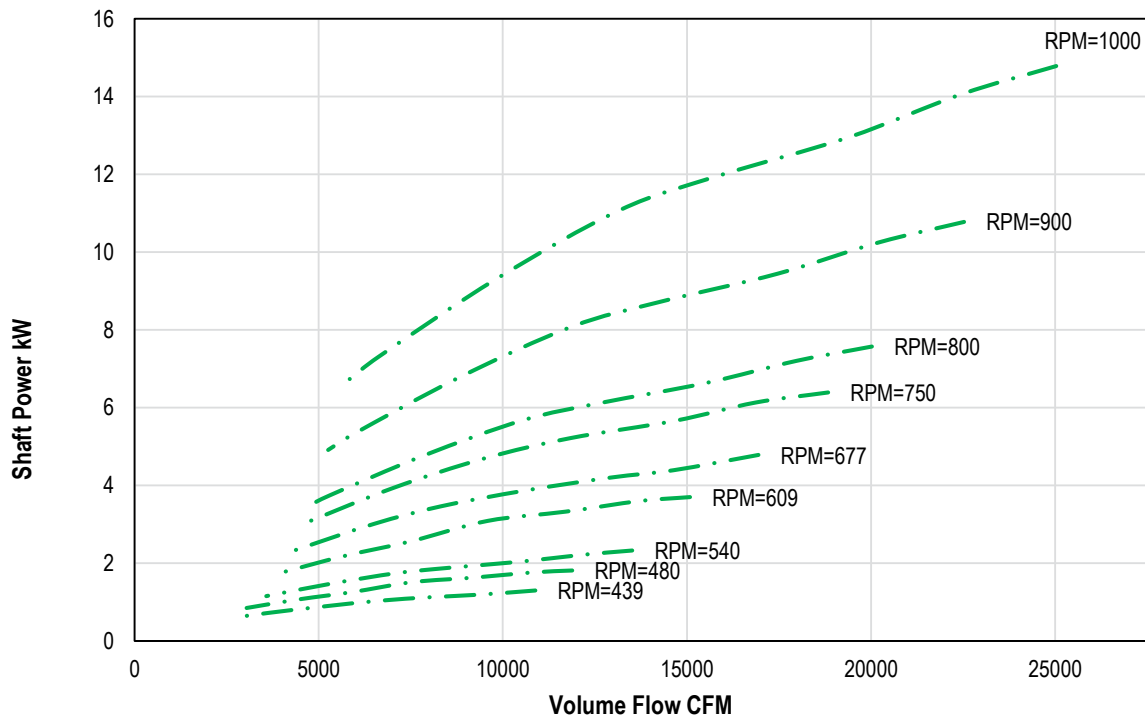
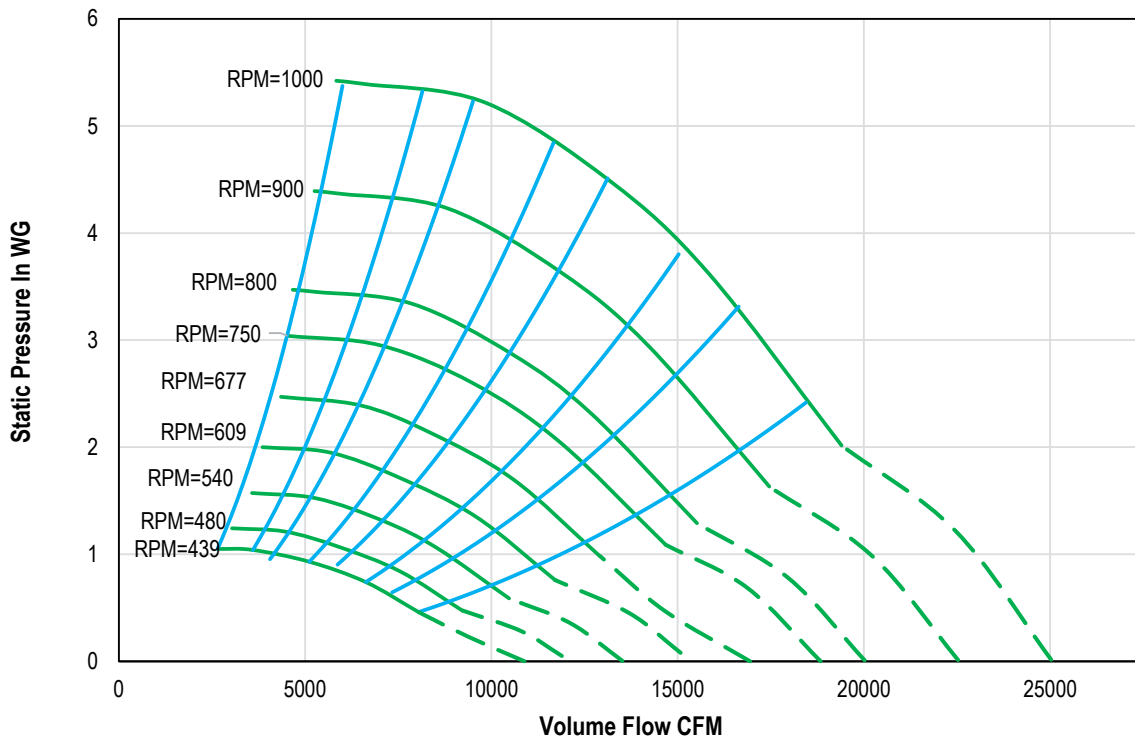
Wheel Diameter D = 800
 Number of Blade Z=10
 Shaft Diameter d = 50
 ^Approximate Unit Weight = 404
 All dimensions in millimeters
 For additional discharge positions see page 43
 ^Weight shown is excluding motor weight, See page 41

Shaded Area indicates Best Operating Points



Performance certified is for installation type C: Ducted inlet, Free outlet per AMCA Standard 210 . Performance ratings do not include the effects of appurtenances (accessories) .Power ratings (BKW) do not include transmission losses. The Sound ratings shown are loudness values in fan sones at 1.5 m (5 ft) in a hemispherical free field calculated per AMCA International Standard 301 . Values shown are for : Installation Type B : free inlet, Ducted outlet hemispherical sone levels .

SWSI - Centrifugal Fan | HRE 900

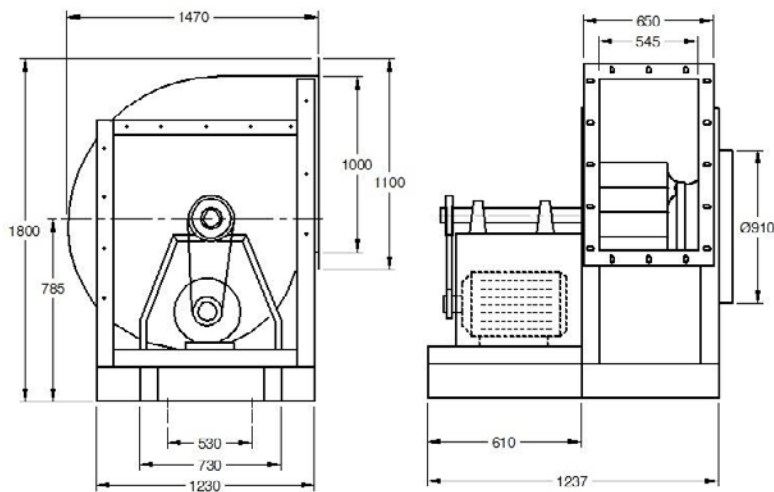


Performance certified is for installation type C: Ducted inlet, Free outlet per AMCA Standard 210 . Performance ratings do not include the effects of appurtenances (accessories) .Power ratings (BKW) do not include transmission losses. The Sound ratings shown are loudness values in fan sones at 1.5 m (5 ft) in a hemispherical free field calculated per AMCA International Standard 301 . Values shown are for : Installation Type B : free inlet, Ducted outlet hemispherical sone levels .

SWSI - Centrifugal Fan | HRE 900

Fan RPM		Static Pressure in Inches wg													
		0	0.25	0.5	0.75	1	1.25	1.5	2	2.5	3	3.5	4	4.5	5
439	CFM	10885	9262	7846	6552	4152									
	BKW	1.29	1.18	1.11	1.02	0.78									
	SONES	18.6	15.2	13.4	10.9	9.5									
480	CFM	11889	10946	9103	7963	6403									
	BKW	1.81	1.77	1.62	1.54	1.33									
	SONES	21.5	19.8	16.6	14.8	12.5									
540	CFM	13516	12545	11101	9810	8782	7451	5494							
	BKW	2.33	2.25	2.11	1.99	1.90	1.78	1.50							
	SONES	26.3	24.5	21.8	19.6	17.9	15.8	13.0							
609	CFM	15084	14453	13389	11775	10848	9950	8743	3858						
	BKW	3.7	3.65	3.55	3.33	3.23	3.13	2.87	1.73						
	SONES	31.8	30.5	27	26	23.7	21	20.1	13.2						
677	CFM	16946	15728	14553	13703	12856	12046	11235	9051						
	BKW	4.79	4.58	4.38	4.29	4.19	4.08	3.96	3.59						
	SONES	38.3	35.7	33.3	31.6	30	28.5	27	22						
750	CFM	18836	18120	17403	16531	15168	14203	13462	11980	9919					
	BKW	6.39	6.29	6.2	6.06	5.77	5.59	5.47	5.24	4.79					
	SONES	45.6	44	42.4	40.6	37.7	35.8	34.3	30	26					
800	CFM	20024	19347	18696	18045	16912	15714	14939	13551	11972	9810				
	BKW	7.57	7.45	7.33	7.22	6.96	6.68	6.53	6.28	5.98	5.43				
	SONES	50.6	49.1	47.7	46	43.8	41.2	39	33	33.9	31				
900	CFM	22527	21964	21370	20776	20158	19093	18027	16556	15322	14029	12323	10004		
	BKW	10.78	10.65	10.52	10.38	10.24	9.93	9.61	9.24	8.96	8.66	8.20	7.29		
	SONES	61.8	60.5	59.1	57.7	56.3	53.9	51.5	48.3	45.8	43.1	39.9	35.7		
1000	CFM	25031	24530	23995	23461	22926	22339	21380	19462	18327	17217	16106	14678	13119	10833
	BKW	14.79	14.65	14.50	14.35	14.20	14.02	13.68	12.98	12.66	12.35	12.04	11.58	11.05	9.85
	SONES	74.1	72.8	71.5	70.2	68.9	67.5	65.2	60.8	58.2	55.8	53.4	50.5	47.4	43.2

Dimensions :



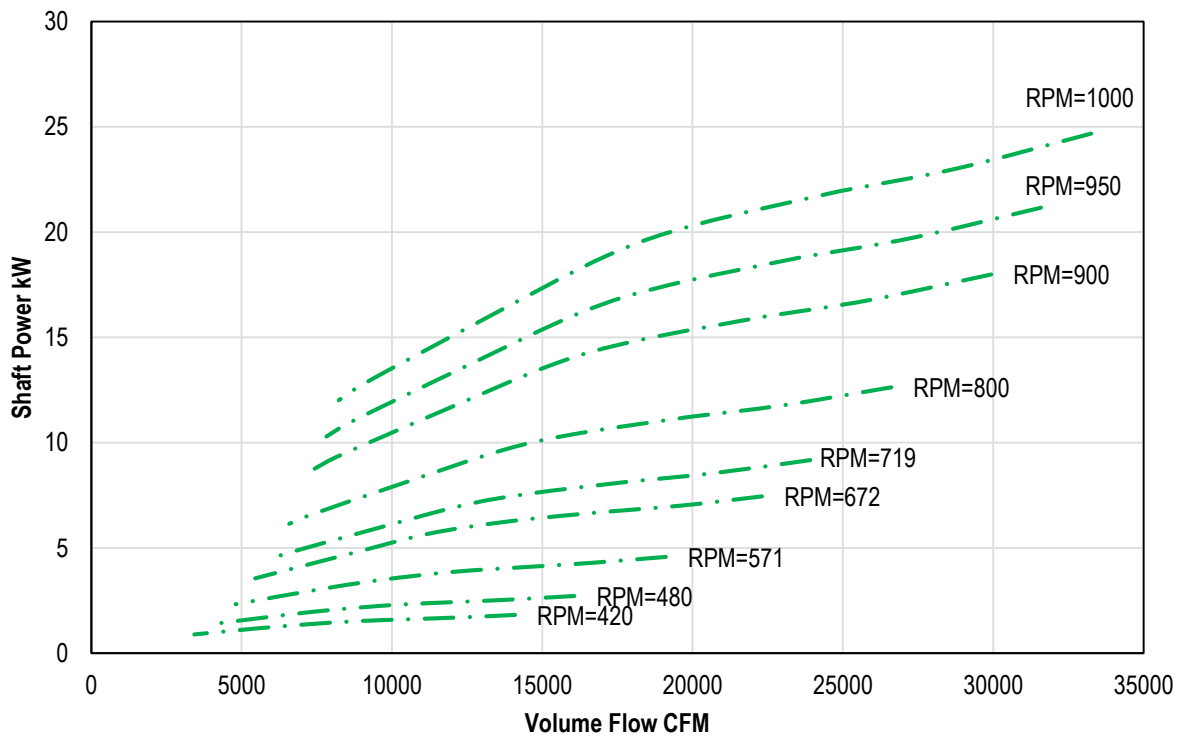
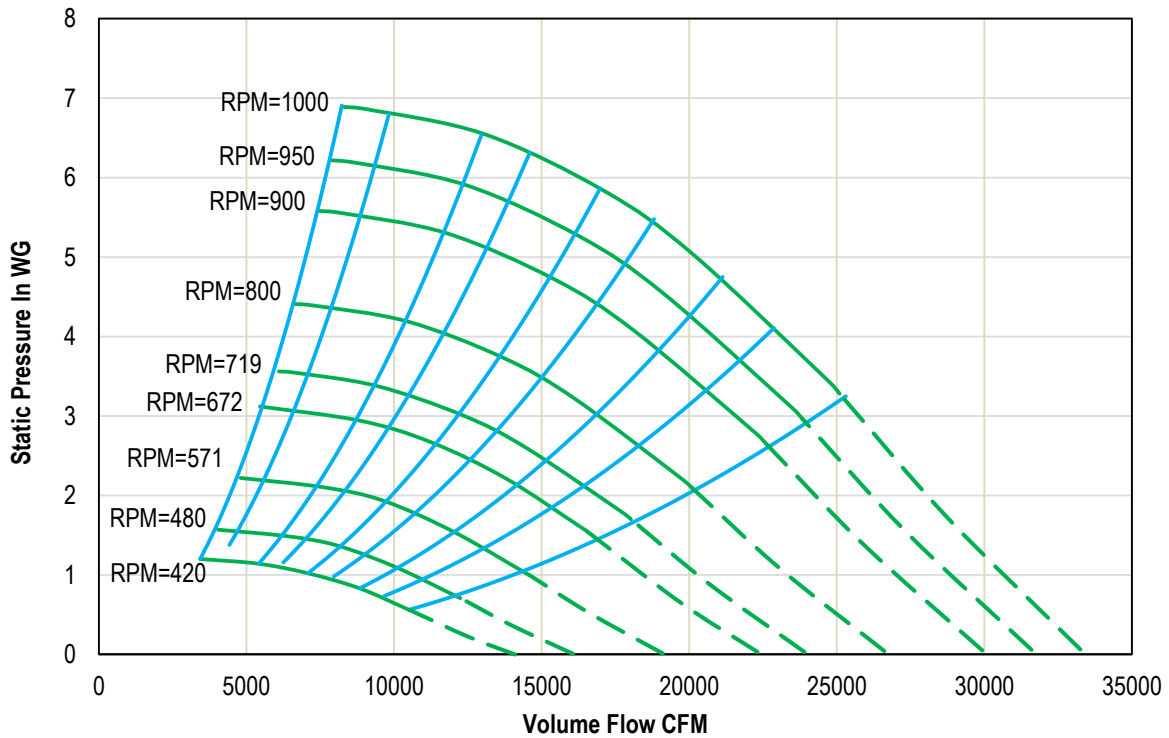
Wheel Diameter D = 900
 Number of Blade Z=10
 Shaft Diameter d = 60
 ^Approximate Unit Weight = 454
 All dimensions in millimeters
 For additional discharge positions see page 43
 ^Weight shown is excluding motor weight, See page 41

Shaded Area indicates Best Operating Points



Performance certified is for installation type C: Ducted inlet, Free outlet per AMCA Standard 210 . Performance ratings do not include the effects of appurtenances (accessories) .Power ratings (BKW) do not include transmission losses. The Sound ratings shown are loudness values in fan sones at 1.5 m (5 ft) in a hemispherical free field calculated per AMCA International Standard 301 . Values shown are for : Installation Type B : free inlet, Ducted outlet hemispherical sone levels .

SWSI - Centrifugal Fan | HRE 1000

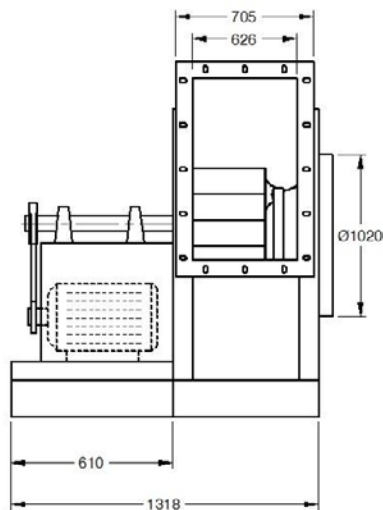
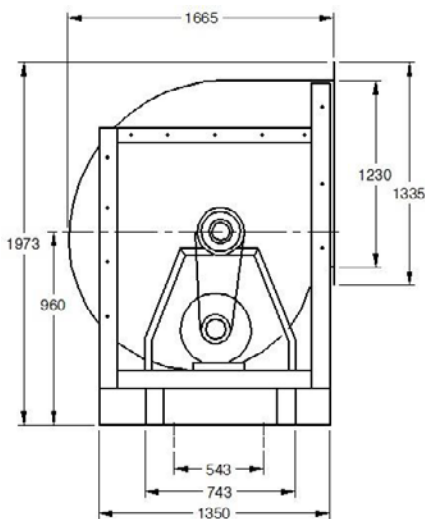


Performance certified is for installation type C: Ducted inlet, Free outlet per AMCA Standard 210 . Performance ratings do not include the effects of appurtenances (accessories) .Power ratings (BKW) do not include transmission losses. The Sound ratings shown are loudness values in fan sones at 1.5 m (5 ft) in a hemispherical free field calculated per AMCA International Standard 301 . Values shown are for : Installation Type B : free inlet, Ducted outlet hemispherical sone levels .

SWSI - Centrifugal Fan | HRE 1000

Fan RPM		Static Pressure in Inches wg													
		0	0.25	0.5	0.75	1	1.25	1.5	2	2.5	3	3.5	4	5	6
420	CFM	14092	12346	10863	9331	7266									
	BKW	1.82	1.71	1.63	1.56	1.39									
	SONES	24.2	21	16.5	14.7	13.1									
480	CFM	16065	14649	13289	12001	10605	8944	5981							
	BKW	2.72	2.61	2.51	2.43	2.33	2.17	1.74							
	SONES	28.9	26.6	24.0	21.5	18.8	15.7	10.4							
571	CFM	19110	17935	16711	15628	14564	13391	12217	8835						
	BKW	4.58	4.45	4.31	4.21	4.11	4	3.89	3.32						
	SONES	36.5	34.6	32	29.8	32	25.2	27	16.2						
672	CFM	22310	21389	20342	19360	18477	17595	16712	14674	12194	7721				
	BKW	7.46	7.3	7.13	6.99	6.88	6.77	6.67	6.38	5.89	4.39				
	SONES	45	43.7	42	39.2	37.2	34	33.3	28	27	14.8				
719	CFM	23908	23078	22134	21190	20308	19493	18678	16876	14873	12367	7366			
	BKW	9.17	9.01	8.83	8.65	8.5	8.38	8.26	7.98	7.63	7.02	5.09			
	SONES	49.4	48.2	46.1	44	41.9	39	38.2	33	31	24.4	14.4			
800	CFM	26606	25892	25042	24192	23343	22568	21835	20369	18698	16902	14794	11797		
	BKW	12.63	12.46	12.26	12.06	11.86	11.7	11.57	11.31	10.97	10.59	10.00	8.76		
	SONES	57.1	56.2	54.2	56	50.2	48.3	45	42	39.2	35	30.2	23.8		
900	CFM	29932	29329	28574	27818	27063	26308	25602	24299	22997	21559	19962	18366	13666	
	BKW	17.99	17.81	17.58	17.35	17.13	16.90	16.71	16.42	16.12	15.77	15.34	14.91	12.70	
	SONES	67.0	66.3	64.5	62.6	60.7	58.8	57.0	53.8	50.6	47.0	43.1	39.3	28.5	
950	CFM	31595	31040	30325	29609	28893	28178	27462	26213	24979	23745	22281	20768	17313	11184
	BKW	21.16	20.97	20.73	20.49	20.25	20.01	19.77	19.45	19.14	18.83	18.40	17.95	16.64	12.75
	SONES	72.2	71.4	69.7	68.0	66.1	64.3	62.4	59.3	56.1	53.0	49.3	45.6	37.3	23.5
1000	CFM	33257	32748	32068	31388	30708	30028	29348	28099	26927	25754	24540	23103	20229	16165
	BKW	24.67	24.49	24.23	23.98	23.73	23.48	23.22	22.82	22.50	22.17	21.82	21.34	20.39	18.15
	SONES	77.4	76.7	75.1	73.4	71.6	69.8	68.0	64.8	61.7	58.7	55.6	51.9	44.7	34.9

Dimensions :



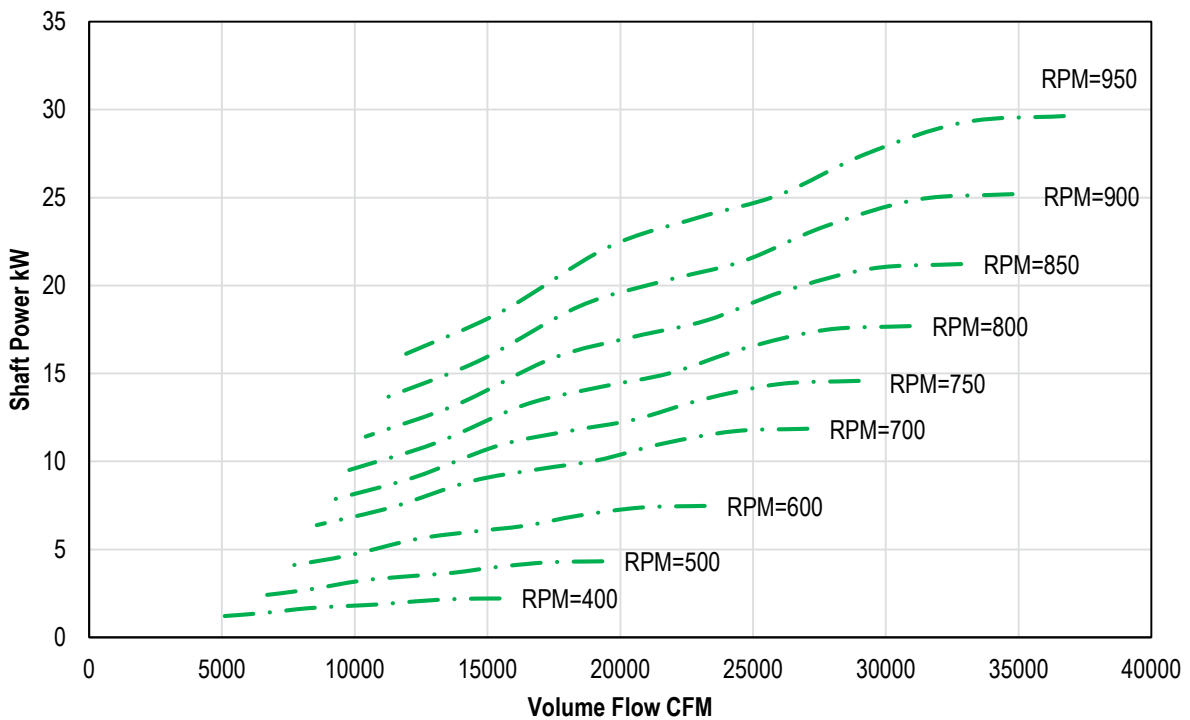
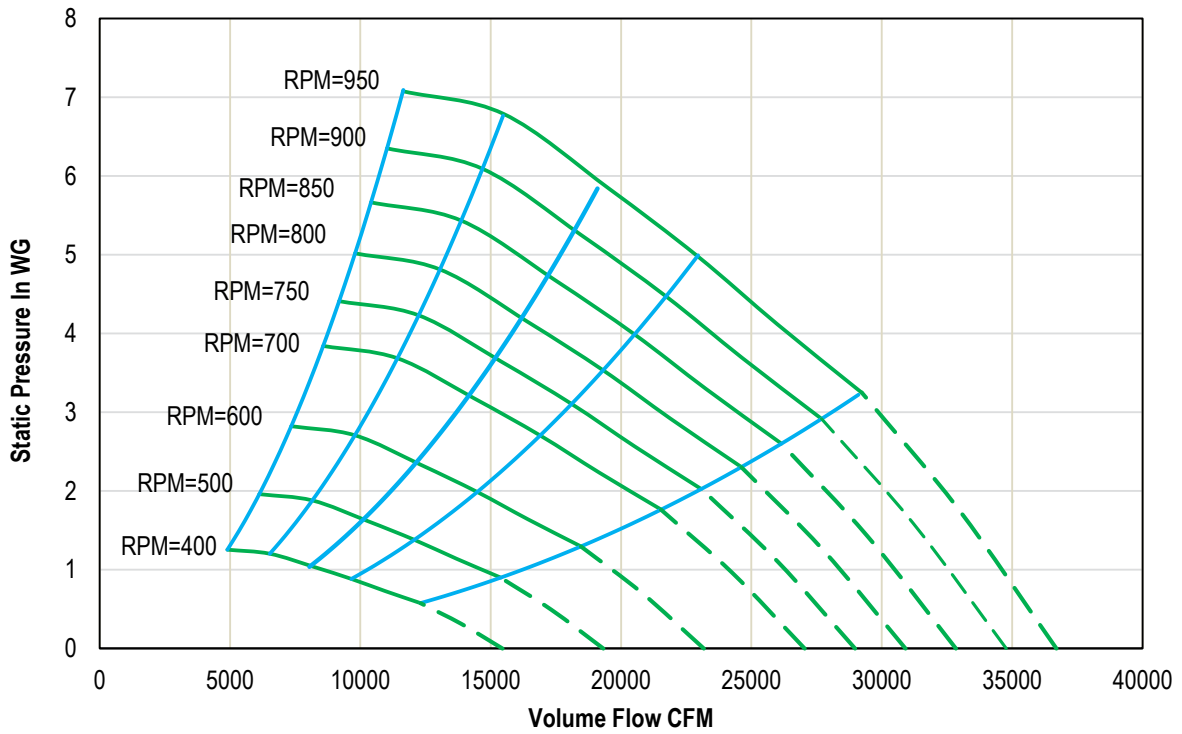
Wheel Diameter D = 1000
 Number of Blade Z=10
 Shaft Diameter d = 60
 ^Approximate Unit Weight = 552
 All dimensions in millimeters
 For additional discharge positions see page 43
 ^Weight shown is excluding motor weight, See page 41

Shaded Area indicates Best Operating Points



Performance certified is for installation type C: Ducted inlet, Free outlet per AMCA Standard 210 . Performance ratings do not include the effects of appurtenances (accessories) .Power ratings (BKW) do not include transmission losses. The Sound ratings shown are loudness values in fan sones at 1.5 m (5 ft) in a hemispherical free field calculated per AMCA International Standard 301 . Values shown are for : Installation Type B : free inlet, Ducted outlet hemispherical sone levels .

SWSI - Centrifugal Fan | HRE 1120

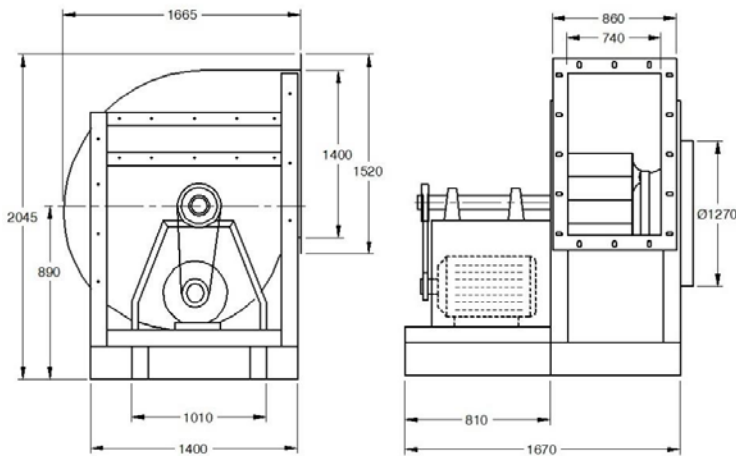


Performance certified is for installation type C: Ducted inlet, Free outlet per AMCA Standard 210. Performance ratings do not include the effects of appurtenances (accessories). Power ratings (BKW) do not include transmission losses. However this model is not carrying AMCA Certified Seal.

SWSI - Centrifugal Fan | HRE 1120

Fan RPM		Static Pressure in Inches wg												
		0	0.25	0.5	0.75	1	1.5	2	2.5	3	4	5	6	7
400	CFM	15454	14192	12760	10776	8557								
	BKW	2.21	2.19	2.09	1.87	1.68								
500	CFM	19317	18308	17291	16099	14676	11166							
	BKW	4.32	4.29	4.26	4.10	3.87	3.35							
600	CFM	23181	22339	21498	20630	19636	17257	14403	11188					
	BKW	7.47	7.43	7.40	7.34	7.15	6.58	6.00	5.17					
700	CFM	27044	26323	25602	24881	24139	22436	20343	17881	15310				
	BKW	11.86	11.82	11.78	11.75	11.68	11.23	10.53	9.78	9.12				
750	CFM	28976	28303	27630	26956	26283	24744	23155	20833	18575	13478			
	BKW	14.58	14.54	14.50	14.46	14.42	14.02	13.54	12.52	11.87	9.81			
800	CFM	30907	30276	29645	29014	28383	27010	25520	23747	21551	17113	10078		
	BKW	17.70	17.66	17.61	17.57	17.53	17.23	16.72	15.97	14.93	13.47	9.65		
850	CFM	32839	32245	31651	31057	30464	29240	27838	26436	24490	20465	15932		
	BKW	21.23	21.18	21.14	21.09	21.05	20.88	20.34	19.79	18.73	17.07	14.76		
900	CFM	34771	34210	33649	33088	32527	31405	30117	28793	27360	23486	19514	15095	
	BKW	25.20	25.15	25.10	25.06	25.01	24.91	24.42	23.84	23.15	20.96	19.30	16.07	
950	CFM	36703	36171	35640	35108	34577	33514	32363	31108	29854	26430	22859	18853	12647
	BKW	29.64	29.59	29.54	29.49	29.44	29.33	29.00	28.39	27.78	25.48	23.83	21.56	16.61

Dimensions :

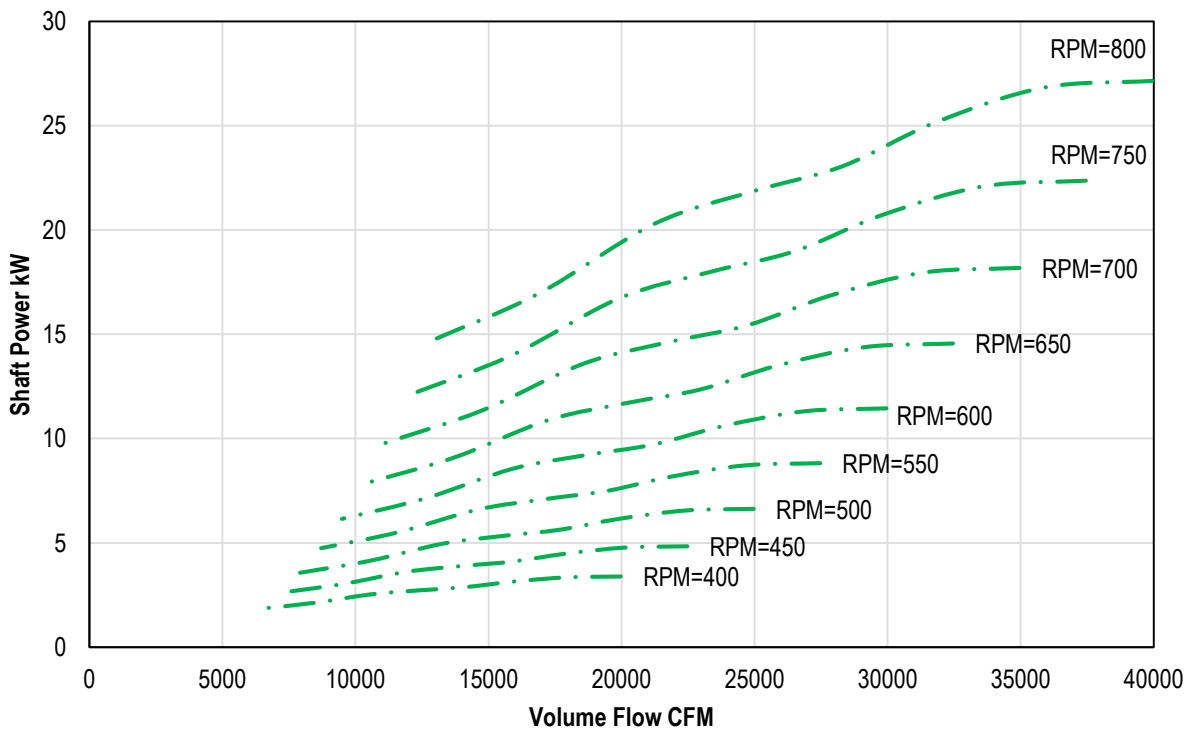
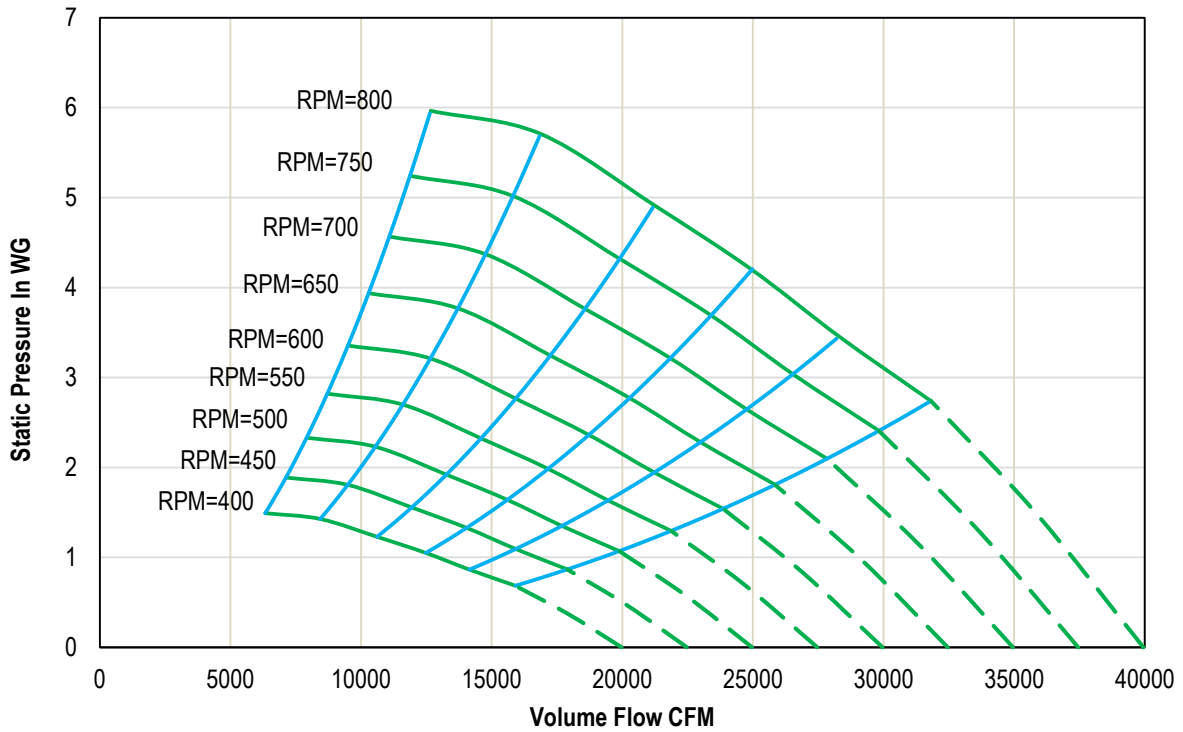


Wheel Diameter $D = 1120$
 Number of Blade $Z=10$
 Shaft Diameter $d = 75$
 ^Approximate Unit Weight = 900
 All dimensions in millimeters
 For additional discharge positions see page 43
 ^Weight shown is excluding motor weight, See page 41

Shaded Area indicates Best Operating Points

Performance certified is for installation type C: Ducted inlet, Free outlet per AMCA Standard 210. Performance ratings do not include the effects of appurtenances (accessories). Power ratings (BKW) do not include transmission losses. However this model is not carrying AMCA Certified Seal.

SWSI - Centrifugal Fan | HRE 1220

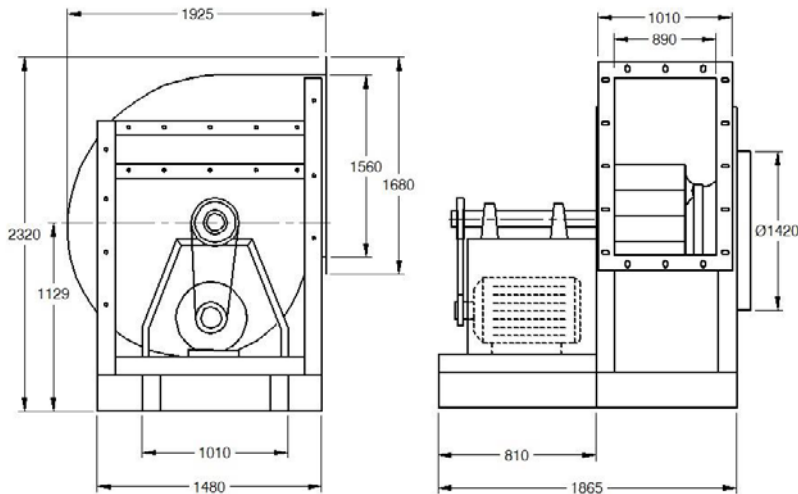


Performance certified is for installation type C: Ducted inlet, Free outlet per AMCA Standard 210. Performance ratings do not include the effects of appurtenances (accessories). Power ratings (BKW) do not include transmission losses. However this model is not carrying AMCA Certified Seal.

SWSI - Centrifugal Fan | HRE 1220

Fan RPM		Static Pressure in Inches wg											
		0	0.25	0.5	0.75	1	1.5	2	2.5	3	4	5	6
400	CFM	19974	18596	17098	15268	12926							
	BKW	3.39	3.37	3.27	3.05	2.77							
450	CFM	22471	21246	19996	18564	16734	12450						
	BKW	4.83	4.80	4.75	4.56	4.26	3.68						
500	CFM	24968	23866	22763	21534	20245	16607	12563					
	BKW	6.63	6.59	6.56	6.41	6.20	5.48	4.74					
550	CFM	27465	26463	25460	24425	23254	20408	17042	13181				
	BKW	8.82	8.78	8.74	8.67	8.44	7.76	7.08	6.08				
600	CFM	29962	29043	28124	27206	26184	24036	20889	17758	14198			
	BKW	11.45	11.41	11.37	11.33	11.15	10.66	9.66	8.99	7.82			
650	CFM	32459	31610	30762	29914	29055	27072	24692	21783	18815			
	BKW	14.56	14.51	14.47	14.43	14.36	13.83	13.04	12.08	11.32			
700	CFM	34955	34168	33380	32593	31805	30037	28196	25580	22942	17087		
	BKW	18.18	18.14	18.09	18.04	17.99	17.55	16.97	15.82	14.95	12.72		
750	CFM	37452	36717	35982	35247	34512	32945	31227	29342	26727	21677	15919	
	BKW	22.37	22.31	22.26	22.21	22.16	21.86	21.24	20.48	19.10	17.38	14.03	
800	CFM	40010	39260	38571	37882	37193	35808	34197	32585	30536	25852	20759	11645
	BKW	27.14	27.09	27.03	26.98	26.92	26.80	26.14	25.48	24.39	22.18	19.93	13.91

Dimensions :



Wheel Diameter D = 1220
 Number of Blade Z=10
 Shaft Diameter d = 75
 ^Approximate Unit Weight = 950
 All dimensions in millimeters
 For additional discharge positions see page 43
 ^Weight shown is excluding motor weight, See page 31

Shaded Area indicates Best Operating Points

Performance certified is for installation type C: Ducted inlet, Free outlet per AMCA Standard 210. Performance ratings do not include the effects of appurtenances (accessories). Power ratings (BKW) do not include transmission losses. However this model is not carrying AMCA Certified Seal.

SWSI - Centrifugal Fan

Optional Accessories

VFD: Variable frequency drives is a type of motor controller that drives an electric motor by varying the frequency and voltage supplied to the electric motor .

Isolator Switches: are used to break the circuits . A wide range selection of NEMA rated switches are available for positive electrical shut-off and safety including dust tight , rain proof corrosion resistant . Switches may be internally or externally mounted . UL approved switches are available.

Drain Connection - Threaded drain connections can be provided to drain moisture from the bottom of the fan housing.

Access Doors - Access doors provide access for inspection and cleaning. Either bolted or hinged, quick opening access doors are available on all models

Shutter - Gravity shutters feature sturdy galvanized frames with pre punched mounting holes, aluminum blades with felt edges and balanced design for minimal resistance to airflow. Shutters are not suitable for downblast or bottomangular downblast discharge positions.

Inlet and Outlet Guards – Constructed of punched sheet metal or expanded metal mounted in a steel frame to provide protection for non-ducted installations.The guards can be easily removed for fan maintenance or inspection.

Spring Isolator – Spring Isolators are provided to isolate fan equipments free from vibration . Deflection of spring isolator can be determined by fan speed , size ,motor kilowatt, equipment location .



SWSI - Centrifugal Fan

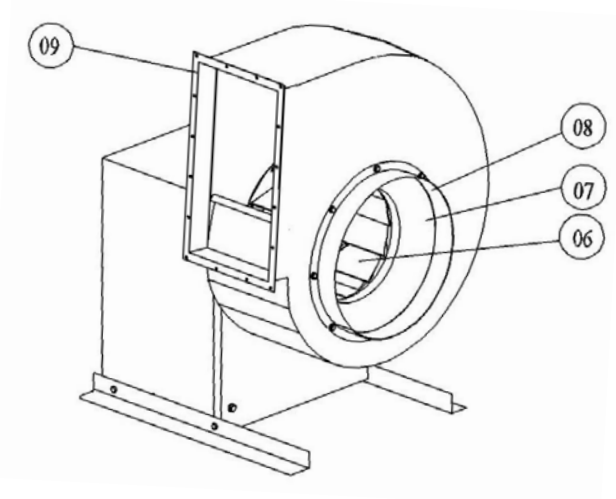
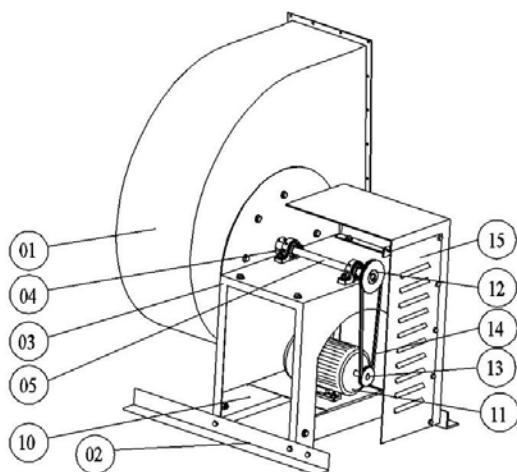
Motor weight:

Generally W21, TEFC motors are used for industrial fan applications. The following Table Shows Approximate Weight for W21 series, IEC Frame, 4 pole and 6 Pole Motors.

It may vary depends on the motor types.

Motor kW	0.18	0.25	0.37	0.55	0.75	1.1	1.5	2.2	3	4	5.5	7.5	9	11	15	18.5	22	30	45	
Kg	4 Pole	8	11	11	14	15	20	23	32	34	46	62	68	95	105	126	175	190	242	387
	6 Pole	7	7	10	11	14	15	20	22	31	42	61	67	72	104	111	129	180	239	411

Fan Parts:



- | | |
|--------------------|-------------------|
| 1. Casing | 9. Outlet flange |
| 2. Mounting feet | 10. Motor bracket |
| 3. Bearing bracket | 11. Motor |
| 4. Bearing | 12. Shaft pulley |
| 5. Shaft | 13. Motor pulley |
| 6. Impeller | 14. Belt |
| 7. Inlet cone | 15. Weather cover |
| 8. Inlet flange | |

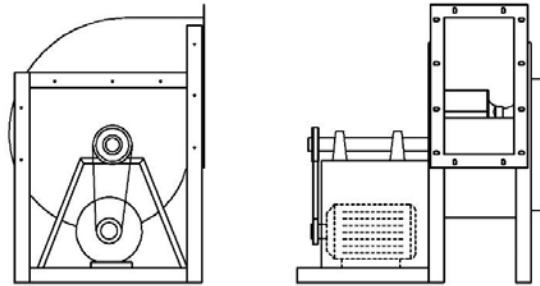
SWSI - Centrifugal Fan

Fan Arrangements

The following Arrangements are available for various operating conditions.

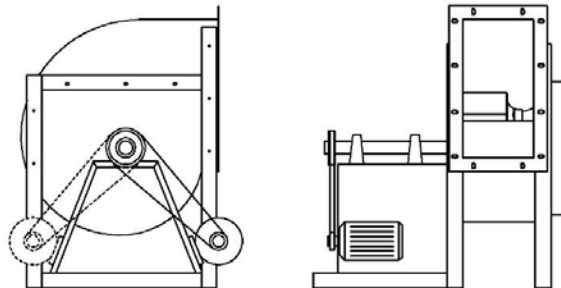
Arrangement 10 SWSI

For belt drive. Impeller overhung on shaft, two bearings mounted on Bearing Bracket. Motor mounted on inside of the bearing bracket .



Arrangement 9 SWSI

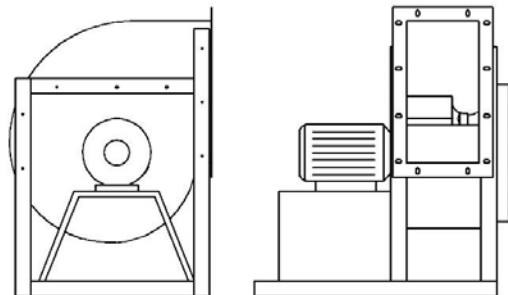
For belt drive. Impeller overhung on shaft, two bearings mounted on Bearing bracket . Motor mounted on outside of the bearing bracket.



Unlimited Motor Size

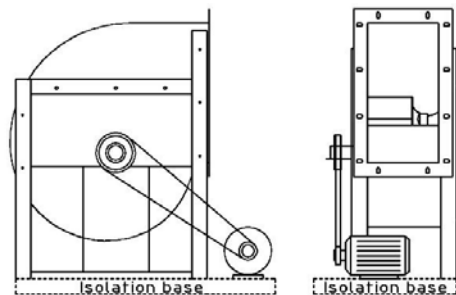
Arrangement 4 SWSI

For direct drive. Impeller overhung on motor shaft. No bearings on fan. Motor mounted on base.



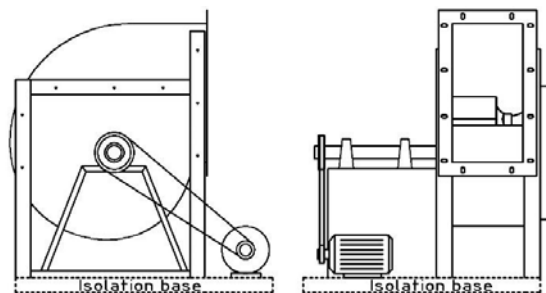
Arrangement 3 SWSI

For belt or direct drive. Impeller mounted on shaft between bearings supported by the fan casing.



Arrangement 1 SWSI

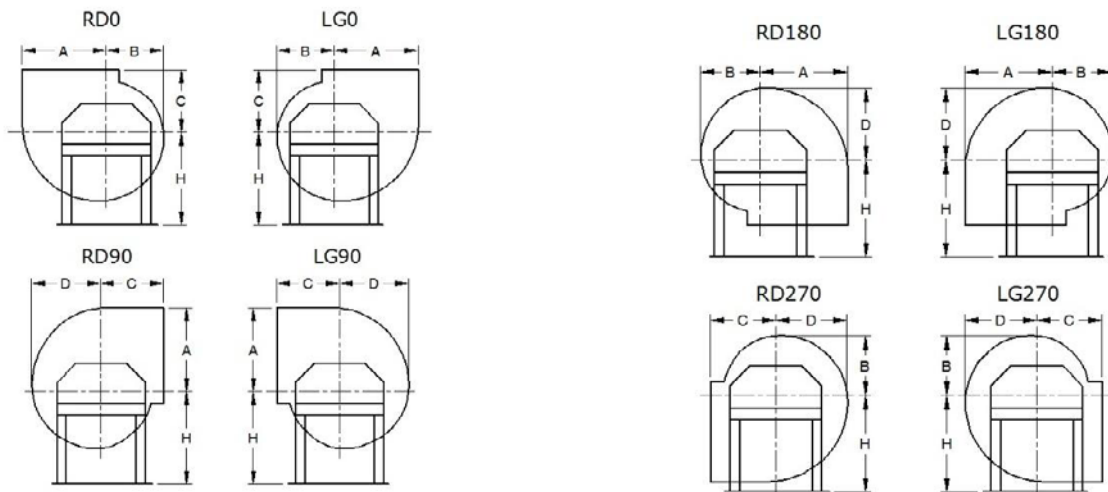
For belt or direct drive. Impeller overhung on shaft, two bearings mounted on pedestal base.



* Consult SFI production for Arrangements 1 & 3 .

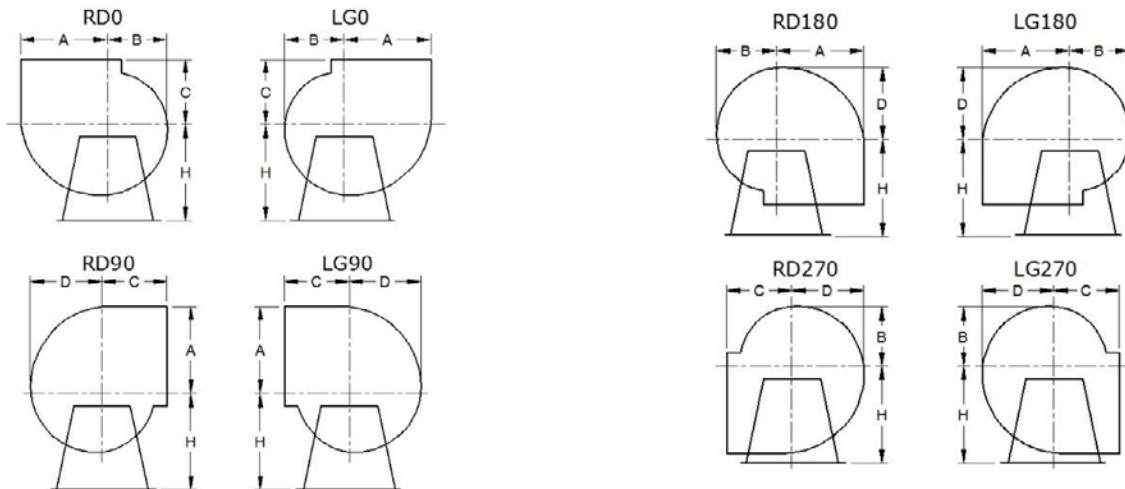
SWSI - Centrifugal Fan

Discharge Positions & Dimensions : Series 1



Model	A	B	C	D	H
HRE 250	271	184	200	223	405
HRE 280	303	207	219	249	390
HRE 315	341	231	242	280	450

Discharge Positions & Dimensions : Series 2



Model	A	B	C	D	H
HRE 355	384	263	273	316	466
HRE 400	433	295	296	356	457
HRE 450	487	333	333	400	528
HRE 500	541	370	365	445	600
HRE 560	632	412	403	495	640
HRE 630	709	463	449	538	640

RD = Clockwise

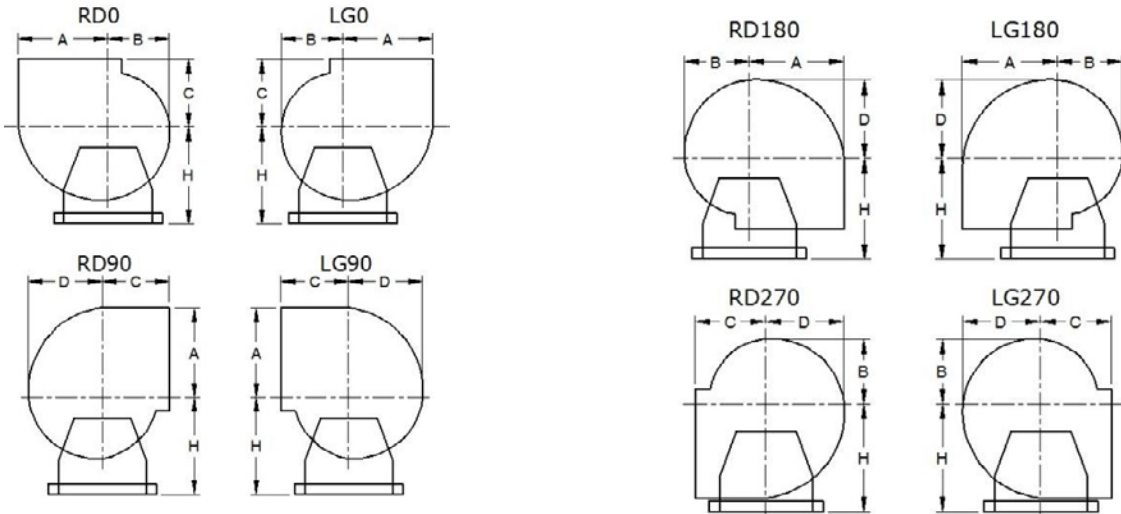
LG = Anti clockwise

The Direction of rotation defined by viewing on the side of the drive

We reserve the right to alter measurements without notice incase of technical improvement

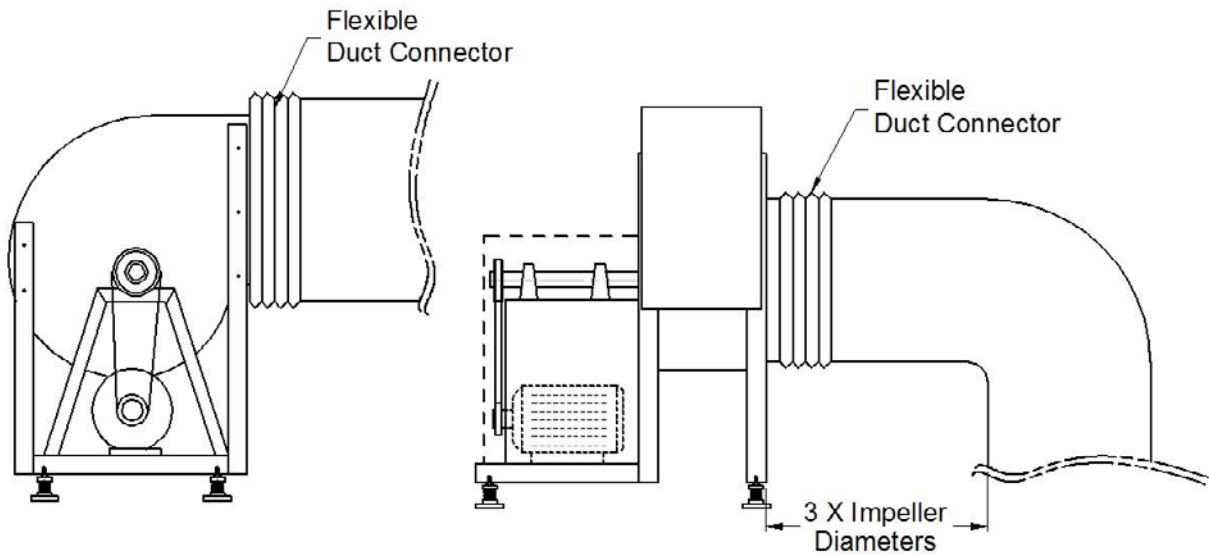
SWSI - Centrifugal Fan

Discharge Positions & Dimensions : Series 3



Model	A	B	C	D	H
HRE 710	801	525	518	632	550
HRE 800	856	608	556	656	600
HRE 900	955	699	658	811	785
HRE 1000	1250	548	782	883	960
HRE 1120	1100	778	868	885	1050
HRE 1220	1225	866	931	989	1130

Typical Installation:



The model HRE is designed for applications ranging from clean air to contaminated air. The installation must include a means for inspecting, cleaning & servicing the exhaust fan.

SWSI - Centrifugal Fan

Guidelines for Specification

HRE Belt Drive Utility Fans

Supply, exhaust and return air fans shall be of the belt driven utility fan type in Arrangement 10 with a single-width, single inlet housing, in clockwise or counterclockwise rotation as specified.

The housing shall be constructed of heavy gauge steel with airtight lock formed seams. The housing shall be easily rotated in the field to any of the eight standard discharge positions. Housing supports and drive frame shall be constructed of welded steel members to prevent vibration and to rigidly support the shaft and bearings. Wheels shall be statically and dynamically balanced.

The wheel cone and fan inlet cone shall be carefully matched for maximum performance and operating efficiency.

Motors shall be heavy-duty, ball bearing type, matched to the fan load and furnished at the specified voltage, phase and enclosure. The fan shaft shall be ground and polished solid steel mounted in heavy-duty, sealed, pillow block ball bearings. Bearings shall be selected for a minimum L10 life in excess of 200,000 working Hours at maximum cataloged operating speed. Drives shall be sized for a minimum of 150% of driven horsepower. Pulleys shall be of the fully machined cast iron type, keyed and securely attached to the fan and motor shafts. The motor pulley shall be adjustable for final system balancing. All fans shall bear the AMCA Air Sound & Performance seal.

HRE Direct Drive Utility Fans

Supply, exhaust, and return air fans shall be of the direct-driven utility fan type in Arrangement 4 with a single width, single inlet housing, in clockwise or counterclockwise rotation as specified.

The housing shall be constructed of galvanized steel, painted steel, or aluminum with welded or air tight lock formed seams. Housings shall be field rotatable to any of the eight standard discharge positions. Housing supports and drive frame shall be constructed of heavy-gauge galvanized or painted steel to minimize vibration and rigidly support the motor and wheel.

The fan wheel shall be of the non-overloading backward inclined, centrifugal fan type and constructed of heavy-gauge aluminum. Wheels shall be statically and dynamically balanced. The wheel cone and fan inlet cone shall be carefully matched for maximum performance and operating efficiency.

Motors shall be heavy-duty, ball bearing type, matched to the fan load and furnished at the specified voltage, phase and enclosure

Fan performance shall be based on tests conducted in accordance with AMCA Standard 210, AMCA Standard 301 for air moving devices, and fans shall be licensed to bear the AMCA Certified Ratings Seal for Sound and Air performance.

SWSI - Centrifugal Fan

Pre -Start Check List

After the fan installation , all the items below should be checked by the maintenance personnel before start running the fan .

Check the items if Yes / No or Not Applicable (N/A) .Check the appropriate box .

1. Ensure the fan and ductwork are clean and no tools and other object left .
Yes No
2. Inspect the tightness of fasteners ,bolts and screws ,such as motor mounting bolts, bushing screws,bearing bolts, fan shaft screws ,impeller fasten bolts,installation bolts,vibration insulators,... etc .(fan should not damaged during shipment).
Yes No
3. Impeller must rotate freely and not rub on the inlet ventury .
Yes No
4. Proper pulley alignment (pulley might be misaligned during fan shipment) .
Yes No N/A
5. Proper belt tension.
Yes No N/A
6. The fan and motor should be electricity grounding .
Yes No
7. Ensure the power supply ,wiring and Amperage are in accordance with the motor name plate . Actual Testing ampere : _____ Rated ampere (motor name plate) : _____
Yes No
8. Wiring connection should confirm the correct impeller rotation .
Clock-Wise (CW) Counter Clock-Wise
9. The power supply should have motor overload protector .Ensure that thermal protection of the motor should be connected .
Yes No
10. Ensure the motor insulation is accordance with the electrifying requirements .
Yes No

Warranty

Saudi Fan Industries warrants this equipment to be free from defects in material and workmanship for a period of One year from the Delivery date .

Terms :

- This warranty will cover for defective parts only excluding labour.
- The warranty does not cover the following
 - a. Defects or malfunction resulting from mishandling&improper operation
 - b. Damage caused by abuse, accident,fire,flood.....etc :and
 - c. Defects due to absence of magnetic starters sized to correct overload rating
- Any units or parts ,which proved defective during the warranty period will be replaced at our option when returned to our factory .

Contact/ Inquiries

For contacts & inquiry

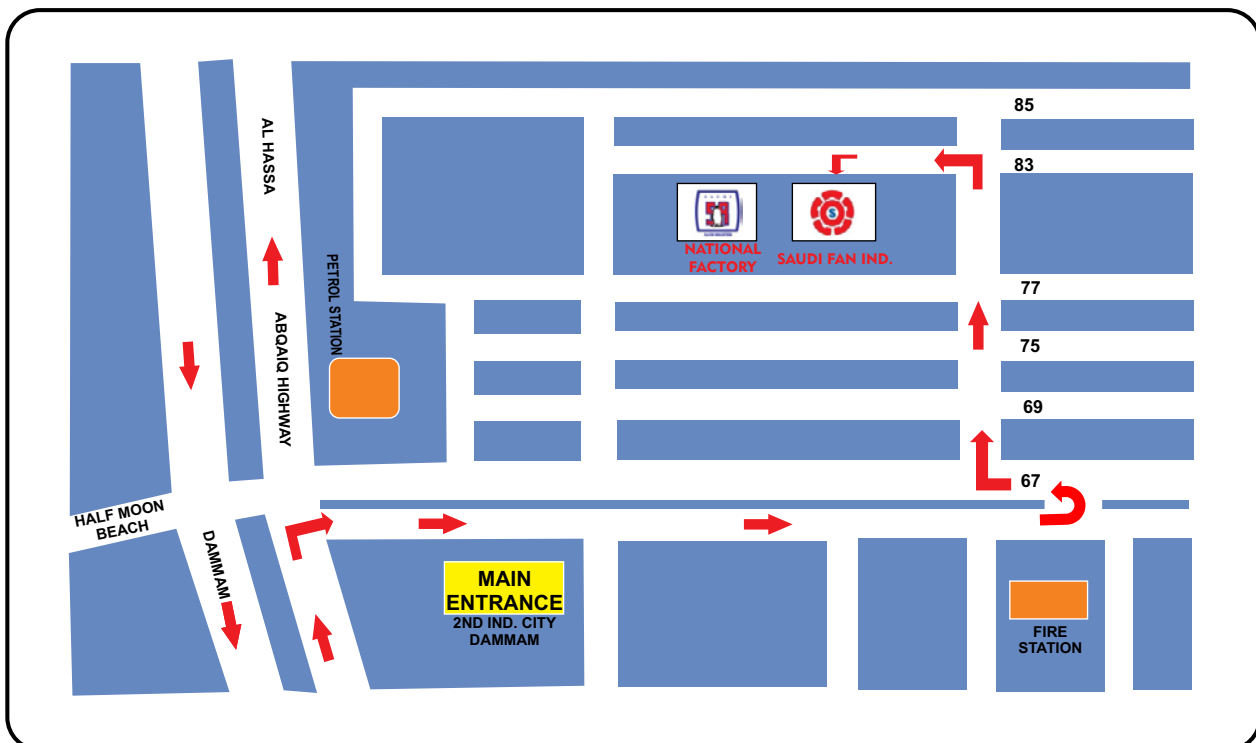
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- **Trading Divisions**
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SAUDI ARABIA



Klimatechnik



OUR LOCATION



Centrifugal Roof Fan
Direct Drive DH / DV



Centrifugal Roof Fan
Belt & Direct Driven / RTC



Centrifugal Radial Fan
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Centrifugal Radial Fan
Belt Driven HRE-TRE / HRZ-TRZ



Square Inline Fans
Belt & Direct Driven / ISQ



Fresh Air Musfan
Belt & Direct Driven / MU



Air Box Fresh Air Fan
Belt & Direct Driven / AirBox



Centrifugal Twin Fan
Belt & Direct Driven / TW



Axial Low Pressure Fan
Direct Drive EG / DG



Axial High Pressure Fan
Direct Drive AND



Inline Centrifugal Duct Fan
Direct Drive EKAE / EKAD



Inline Centrifugal Tube Fan
Direct Drive R / RS



Centrifugal Silent Fan
Direct Drive SSF



Axial Circulation Fan
Direct Drive SACF 30" - 36"



Axial Agricultural Fan
Direct Drive SAAF 125"



Axial Portable Tunnel Fan
Direct Drive SPTF 8" - 12"