



INDUSTRIAL PROCESS AND
COMMERCIAL VENTILATION SYSTEMS

CENTRIFUGAL INDUCED FLOW FUME EXHAUST FANS

BAIFE | BCIFE



CENTRIFUGAL FANS



Overview BAIFE | BCIFE



BAIFE/BCIFE

AMCA 260 Tested



Model BAIFE & BCIFE is available with UL/cUL 705 listing, for electrical, File No. E158680.



Twin City Fan certifies that the BAIFE Centrifugal Induced Flow Exhaust Fan herein are licensed to bear the AMCA Seal. The ratings shown are based on test and procedures performance in accordance with AMCA Publication 211 and 311 and comply with the requirements of the AMCA Certified Ratings Program. The AMCA Certified Ratings Seal applies to Induced Flow Fan Air and Sound Performance tested in accordance with AMCA standard 260. See Twin City Fan Fan Selector® program for sound ratings.

For complete product performance, drawings and available accessories, download our Fan Selector program at tcf.com.

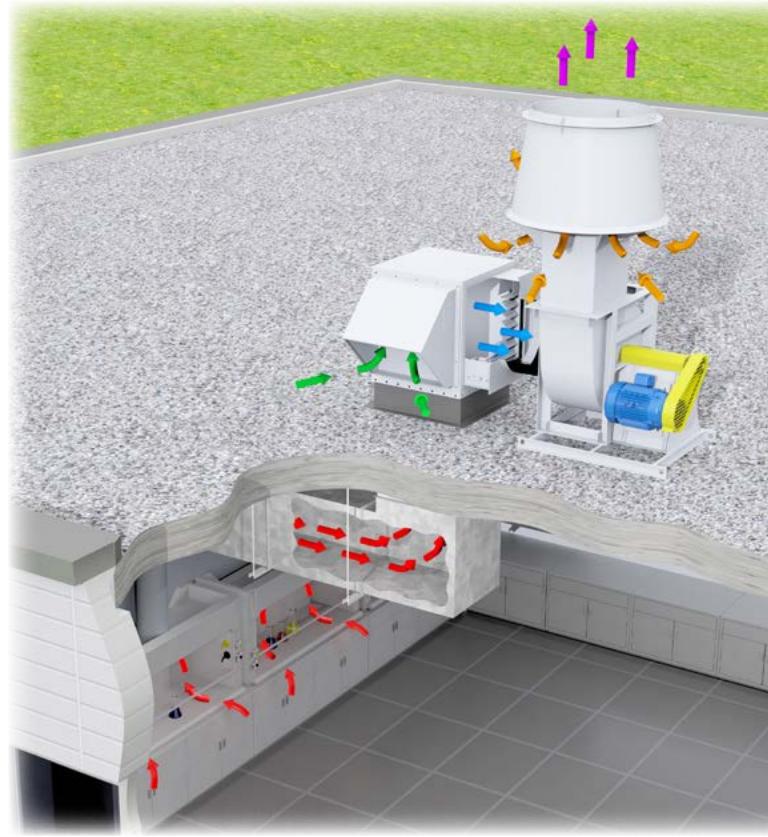
Application

BAIFE | BCIFE

Application

The BAIFE and BCIFE Induced Flow Exhaust Fans are intended for use in exhausting laboratory fumes and hazardous chemicals in such a manner that diminishes the likelihood of concentrated, contaminant-laden air from being re-entrained into the building's intake or makeup air. This unit is commonly used in exhaust systems for universities, schools, hospitals, research facilities, laboratories and waste water treatment plants.

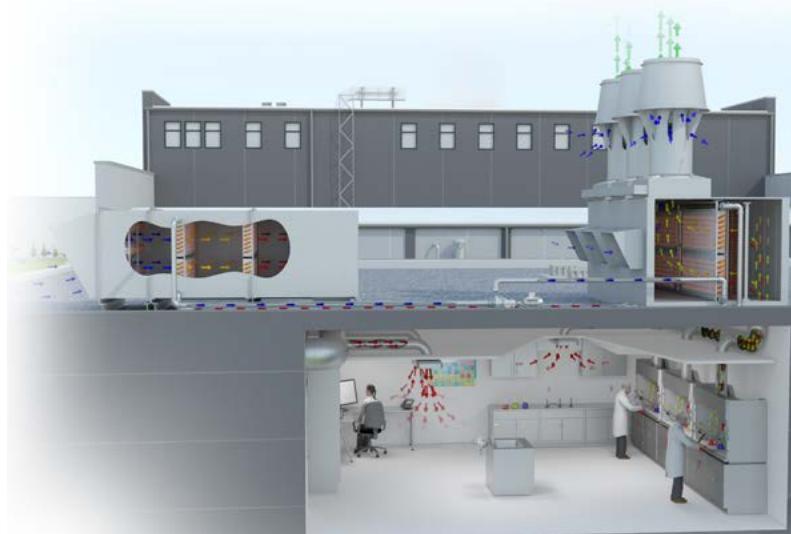
Induced flow exhaust fans dilute contaminated air at the outlet as well as increase the outlet volume of the fan. This accelerates the discharge air, increasing plume height without a tall stack.



Energy Recovery Systems

Twin City Fan energy recovery systems for fume exhaust applications combine our line of high efficiency fume exhaust fans with the latest in energy recovery technology. TCF can greatly reduce your energy consumption and carbon footprint while simultaneously increasing your bottom line. Our energy recovery plenums are available in endless configurations to match your specific needs.

TCF's energy recovery systems are designed to extract energy from the conditioned air exiting the laboratory and return the captured energy back into the make-up air unit before it re-enters the building. Energy recovery systems can also be used to pre-cool incoming supply air by removing the heat from the incoming airstream and sending it to the exhaust system.



CONSTRUCTION



BAIFE Impeller



BCIFE Impeller

Shaft

Shafts are AISI Grade 1045 hot-rolled steel accurately turned, ground, polished and ring gauged for accuracy. Shafts are generously sized for a first critical speed of at least 1.43 times the maximum speed for the class.

Shaft Seal

The standard shaft seal reduces leakage and protects the bearings from a contaminated airstream. It is constructed of non-asbestos woven fibrous materials (ceramic felt) compressed between an aluminum cover plate and the fan housing. A ceramic felt shaft seal does not make the fan gas tight. A variety of special seals is available for low leakage applications requiring more positive protection, including mechanical type stuffing boxes.

Drain with Plug

A drain coupling welded to the lowest point of the housing allows drainage of condensate from fan housing.

Impeller Designs

BAIFE airfoil impellers are available in sizes 122 through 165 in aluminum construction only using extruded aluminum blades. Sizes 165 and larger are constructed of steel using die-formed hollow airfoil blades, both sides of the blades continuously welded to the conical spun inlet shroud (rim) and the backplate.

BCIFE impellers are constructed of steel using flat single thickness blades. Flat blades lend themselves well to high temperature environments or where high humidity or light dust loading may be present.

The use of a conical spun shroud (rim) makes BAIFE/BCIFE fans less susceptible to the performance losses associated with poor inlet conditions. Both impellers are designed for a stable air performance throughout the operating range. The impellers are statically and dynamically balanced to grade BV-3 per AMCA 204 for smooth operation prior to being assembled in the fan, followed by final balance of the entire rotating assembly by Twin City Fan.

Housing

All fan housings are continuously welded to provide strength and durability for extended service life — a necessity in all commercial and industrial installations. The structural frame of the housing is designed to support the windband and nozzle at cross wind speeds up to 125mph without the use of guy-wires for rigid mounted fans.

Lifting lugs are standard on all fans. Precisely positioned cutoff plates and aerodynamically spun inlet cones provide high efficiency and smooth airflow through the fan.

Nozzle

Located between the fan housing and the windband, the nozzle efficiently increases the speed of the exhaust stream into the windband. The accelerated air entrains surrounding ambient air into the windband diluting the building exhaust.

Bolted Access Door

Impeller area access door for inspection or cleaning of the impeller.

Bearings

For fans with bearings, they are heavy-duty, grease lubricated, spherical roller or adapter mounted anti-friction ball, self-aligning, pillow block type, selected for minimum average bearing life (AFBMA L-10) in excess of 200,000 hours at the maximum fan RPM.

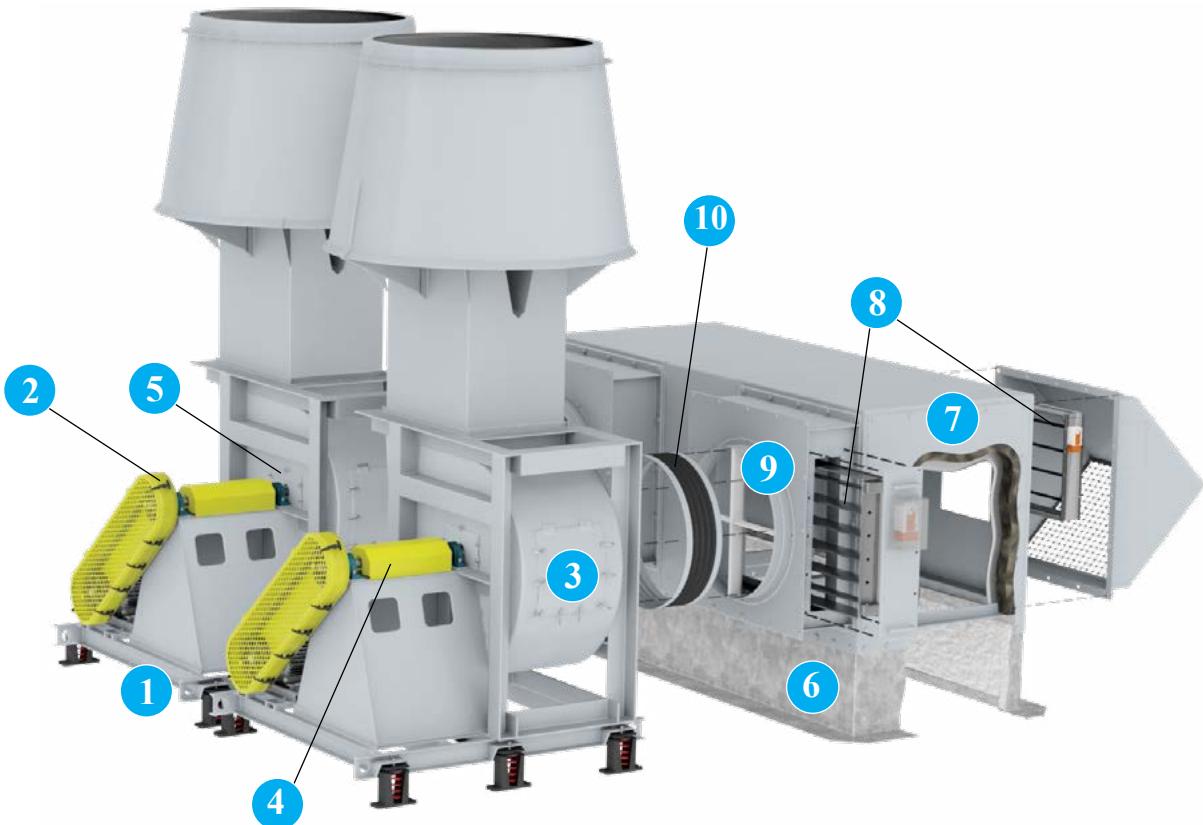
MOUNTING CONFIGURATIONS



Unique applications require unique configurations. With the Twin City Fan modular mixing box, multiple configurations are able to be easily created and retrofitted.

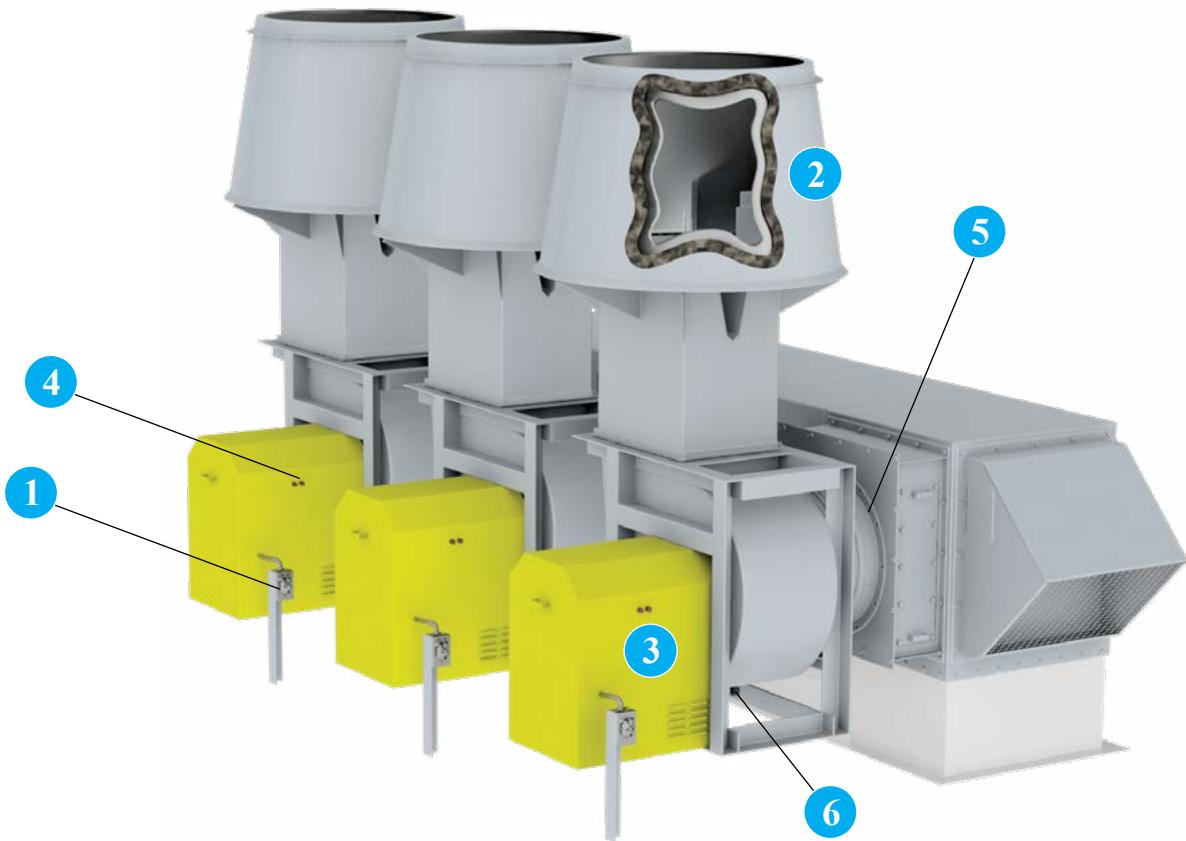


OPTIONS/ACCESSORIES



- 1 Isolation Base** A structural steel base minimize the transmission of sound vibration from the fan to the building structure and provides common support to fan, motor and drive including guards. This style of base is designed for use with isolators and requires adequate foundation integrity for proper operation. Unitary bases (no springs) and inertia bases (concrete filled) are available.
- 2 Belt Guard - Quick Access** Designed to protect personnel from the moving drive parts. OSHA and quick access guards are available.
- 3 Quick Open Access Doors** are designed for quick impeller inspection and maintenance. Access doors are specified where examination and cleaning of the fan interior is required.
- 4 Exposed Bearing Shaft Guard** Sheet metal guard spanning the shaft between the bearings to provide open access to bearings for lubrication and vibration monitoring. A full guard to cover shaft and bearings is available.
- 5 Shaft Seal** Standard on all fans. Special seals are available to suit specific applications.

- 6 Insulated Roof Curb** Standard roof curbs are 12" high and are constructed of heavy-duty galvanized steel and include 1½" thick insulation. Contact factory for other roof curb options.
- 7 Mixing Plenum Box w/ Weatherhood; Insulated & Bottom Intake** Features stainless steel liner and modular construction to allow for multiple configurations and effortless retrofitting. Multiple construction features, including non-insulated and side intake, are available upon request.
- 8 Isolation and Bypass Damper** Isolation dampers are typically used on multi-fan systems to isolate individual fans. Bypass dampers are used to maintain outlet velocities by allowing a constant volume at the fan when exhaust air is reduced. Both dampers are available with controls and various materials of construction and coating options.
- 9 Vortex Breaker** Installed in the mixing plenum box at the fan inlet, the vortex breaker minimizes air 'swirl'. Recommended for multi-fan configurations and intakes that are not directly across from the inlet of the fan.
- 10 Flex Connector** Located between the mixing plenum box and fan inlet to isolate fan vibration from the users duct work.



1 NEMA 3R Disconnect Switch, rain proof, disconnect is available shipped loose for field mounting and wiring or factory mounted and wired. Also available with a NEMA 4 or 7/9 switch.

2 Acoustic Windband Designed to reduce noise of the fan system by attenuating sound at the fan outlet.

3 Weather Cover (Arrg. 4 & 10 Only) For outdoor installations, the weather cover completely encloses the motor and V-belt drive from the elements. Provided with slots for ventilation, the cover is easily removable for inspection and maintenance.

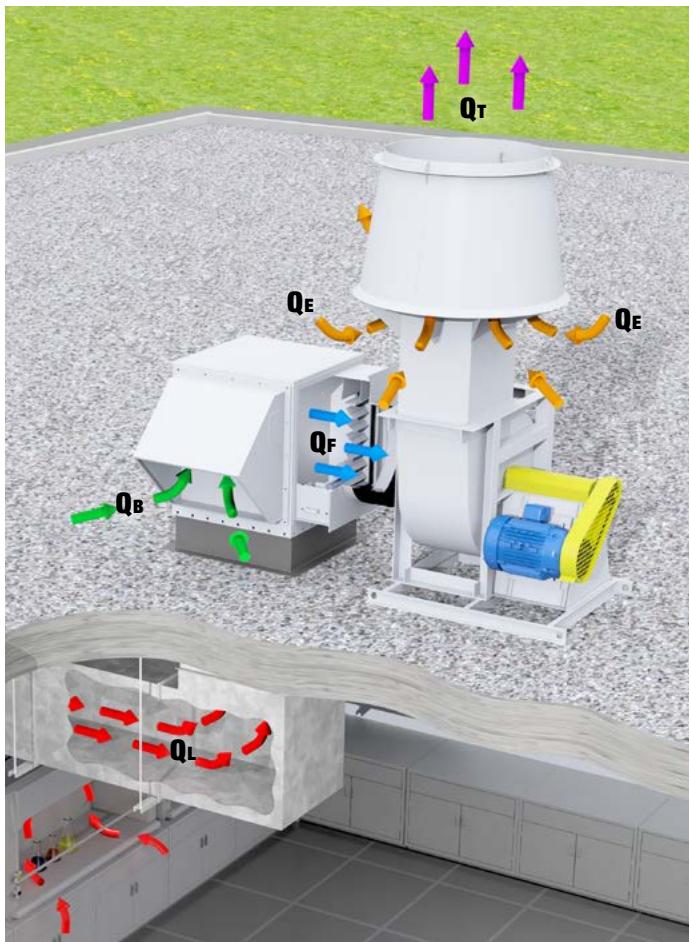
4 Extended Lube Lines Allow for easy lubrication of bearings on belt driven units without disassembly by extending polyethylene lines from fan bearings to outside of guards or weather covers.

5 Inlet/ Outlet Flange (Punched) Punched inlet flanges are available for duct mounting. Punched outlet flanges are welded to the fan outlet for nozzle and windband mounting.

6 3/4" Drain with Plug Threaded pipe coupling welded to the lowest point in the housing scroll. All fans come with a weep hole in the bottom of the housing as standard.

OTHER ACCESSORIES:

- Piezometer Ring & Transducers
- Insulation Pins
- Insulated Housing
- Shaft & Bearing Guard
- Inlet Safety Screen
- Bolted Access Door



Q_B = Bypass Flow

Q_E = Entrained Flow

Q_F = Fan Flow

Q_L = Laboratory Flow (Contaminated Air)

Q_T = Total Flow

$$Q_T = Q_E + Q_F$$

$$Q_F = Q_B + Q_L$$

$$\therefore Q_T = Q_E + Q_B + Q_L$$

$$\text{Dilution Ratio} = \text{D.R.} = \frac{Q_T}{Q_L}$$

$$\text{Entrainment Ratio} = \text{E.R.} = \frac{Q_T}{Q_F}$$

Bypass Air

Ambient air that is drawn through the bypass air plenum and mixed with the lab exhaust to increase dilution and plume rise. Bypass air is primarily used in variable volume applications to maintain a constant discharge volume but can also be used to increase overall exhaust volume and dilution. (See diagram to left.)

Dilution Ratio

The ratio of the total fan outlet volume to the lab exhaust volume. (Total Volume/Lab Exhaust Volume). Value includes any additional bypass air in the calculation. (See diagram to left.)

Entrainment Air

Air that is entrained (induced flow) through the windband and fan housing, mixed with the laboratory exhaust to increase the dilution ratio and plume rise. (See diagram to left.)

Entrainment Ratio

The ratio of the total fan outlet volume to the fan inlet volume. (Total Volume/Fan Inlet Volume - see diagram to left.)

Nozzle

Device located internal to the fan housing, providing fume exhaust air to accelerate upon entrance to the windband. Several nozzles per fan size are available on the BAIFE and BCIFE; low-velocity, medium-velocity, high-velocity and extra-high-velocity. Each nozzle provides different flow characteristics. Nozzle should be selected based on the application requirements.

Plume Rise

The height of the fume exhaust and entrainment air above the discharge of the windband. (See page 5 for diagram and calculations.)

Plume Height

Overall height of the discharge plume rise, plus the added height of the exhaust system above the roofdeck level. (See page 5 for diagram and calculations.)

Total Airflow

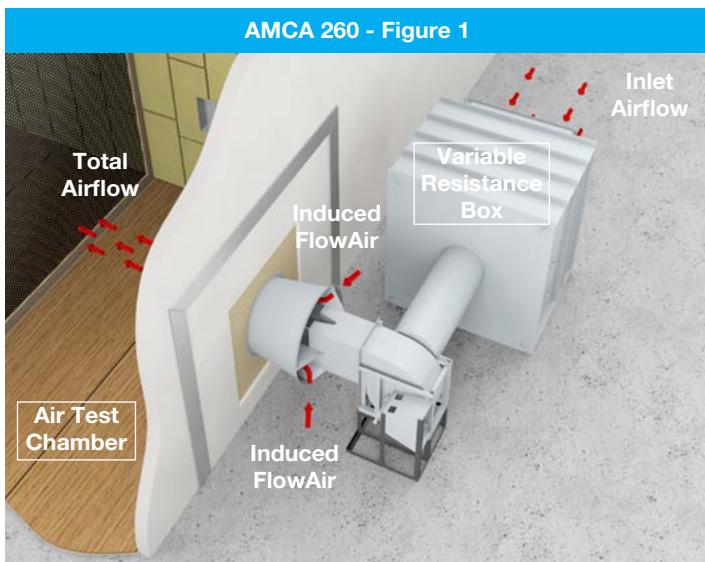
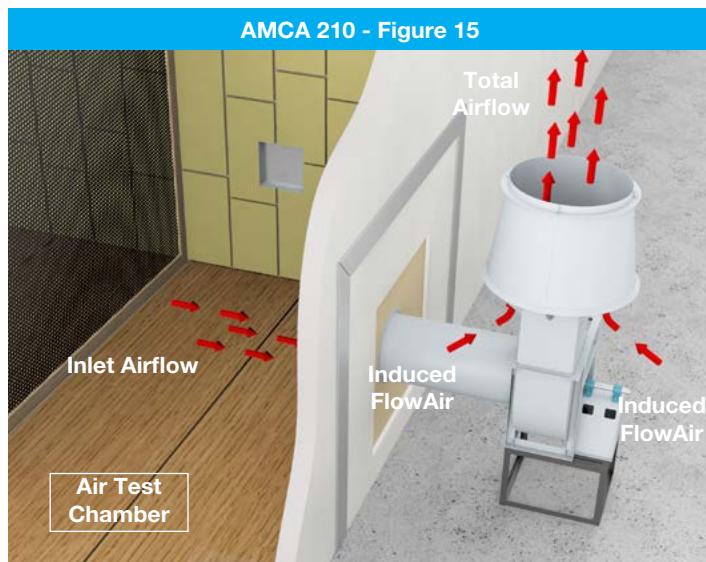
The total airflow exiting the windband, including fume exhaust, bypass air and entrainment air. (See diagram to left.)

Windband

Device used to direct the fume exhaust as it leaves the housing of the exhaust fan and entrain dilution air.

The following illustrations describe the procedure for determining the total laboratory exhaust fan discharge flow. The total discharge flow is the sum of inlet airflow and entrained airflow. The key requirement to AMCA 260 is the variable resistance box. This box allows the measurement of total discharge flow ($P_s = 0$ in. w.g. to simulate discharging the fan to atmosphere) at all points along its fan curve.

Without the variable resistance box, the entrained airflow can only be measured at the free air point of its fan curve. The entrained airflow obtained can be used to calculate an effective plume height. Therefore, AMCA 260 certification is necessary to ensure the laboratory exhaust fan specified is providing the plume rise and entrainment submitted.



PLUME HEIGHT CALCULATION

$$h_e = h_r + h_s^*$$

$$h_e = [3.0 \times (V \times d/U)] + h_s$$

h_e = Effective plume height (ft)

h_r = Plume rise (ft)

h_s = Stack height (height from roof to outlet of windband) (ft)

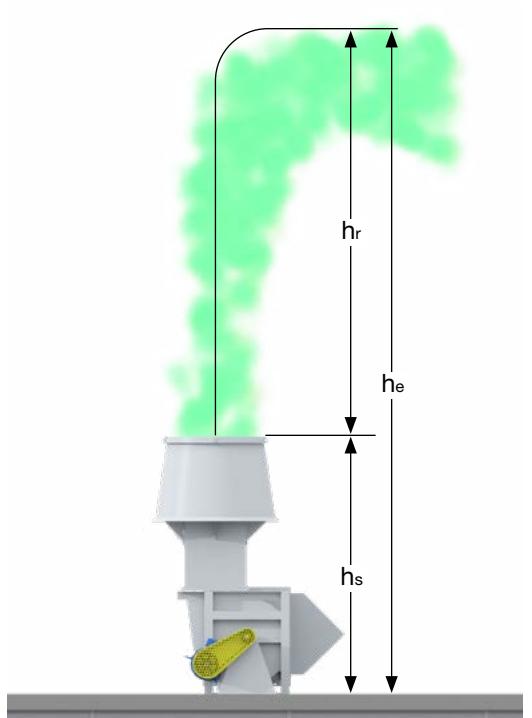
V = Windband exit velocity (ft/min)

d = Windband outlet diameter (ft)

U = Crosswind speed (ft/min)

* Equation taken from ASHRAE Laboratory Design Guide, Equation 9-2.

Note: Plume height calculations are typically calculated with a 10 mph (880 ft/min) crosswind.



Arrangement 1

SWSI — Single Width, Single Inlet

Arrangement 1 is belt driven. The impeller is overhung on the shaft, i.e., mounted at the end of the shaft. The motor can be mounted in any of the AMCA standard motor positions, X or Y. The two fan bearings are mounted on the bearing pedestal, out of the airstream, which makes them ideal for high temperature or contaminated air applications. Belt driven configurations offer performance flexibility.



Arrangement 4

SWSI — Single Width, Single Inlet

Arrangement 4 is a direct drive fan. The impeller is mounted directly to the motor shaft with the motor mounted to a pedestal. Arrangement 4 offers low maintenance since there are no fan bearings, fan shaft or drive parts to maintain. Arrangement 4 fans are limited up to size 365.



Arrangement 8

SWSI — Single Width, Single Inlet

Arrangement 8 is a modified version of Arrangement 1 used for direct drive. The Arrangement 1 bearing pedestal is extended to accommodate the motor. A flexible coupling connects the fan and motor shaft. Arrangement 8 fans are available on Size 402 and larger.



Arrangement 9

SWSI — Single Width, Single Inlet

Arrangement 9 is available as belt driven only. A motor slide base is mounted on the side of the bearing pedestal. This arrangement permits the unit to ship as a complete assembly with the motor and drive mounted. Typically, the motor is mounted on the left side of the pedestal for CW rotation fans and on the right side for CCW rotation fans.



Arrangement 10

SWSI — Single Width, Single Inlet

Arrangement 10 is available as belt driven only. For Class I and II fans, sizes 122 through 365, Arrangement 10 units are commonly referred to as Ventilating Sets. (Refer to Catalog 600 for more details.) Arrangement 10 units have adjustable motor bases mounted inside the bearing pedestal. This arrangement offers a more compact design than the Arrangement 9 and is suitable for roof or outdoor installations when supplied with the optional weather cover.



Table 1. BAIFE Maximum RPM, Impeller Weights and WR² (moment of inertia in lb-ft²)

FAN SIZE	CLASS I			CLASS II			CLASS III		
	MAX. RPM	WEIGHT LB.	WR ² LB-FT ²	MAX. RPM	WEIGHT LB.	WR ² LB-FT ²	MAX. RPM	WEIGHT LB.	WR ² LB-FT ²
122	3990	9	0.97	5205	9	0.97	-	-	-
135	3265	10	1.4	4259	10	1.4	-	-	-
150	3260	14	2.12	4252	14	2.12	-	-	-
165	2673	16	3.23	3487	17	4.04	-	-	-
182	2294	34	9.75	2902	39	10.8	3701	54	14.2
200	2093	41	13.9	2648	45	15.3	3377	64	20.2
222	1881	69	25.7	2381	69	25.7	3036	86	32.7
245	1708	81	38.3	2162	80	38.3	2757	111	51.9
270	1558	89	52.4	1999	89	52.4	2549	128	75.1
300	1402	108	82.5	1799	119	95	2294	149	113
330	1275	131	121	1636	160	149	2085	187	183
365	1071	173	204	1388	206	246	1760	265	319
402	971	213	300	1258	243	361	1596	299	435
445	878	303	476	1138	365	627	1444	408	677
490	797	348	683	1033	423	906	1311	474	980
542	720	443	1142	933	537	1384	1184	605	1582
600	651	570	1855	844	635	2055	1071	722	2349
660	592	832	2862	767	881	3153	973	1004	3721

Mixing Box Weights

FAN SIZE	BOTTOM INTAKE (LBS.)	SIDE INTAKE (LBS.)
122	244	239
135	262	255
150	296	288
165	312	301
182	347	338
200	384	375
222	417	408
245	479	469
270	517	506
300	590	578
330	661	648
365	756	743
402	861	846
445	975	959
490	1127	1109
542	1301	1282
600	1510	1489
660	1732	1710

Table 2. BCIFE Maximum RPM, Impeller Weights and WR² (moment of inertia in lb-ft²)

FAN SIZE	CLASS I			CLASS II			CLASS III		
	MAX. RPM	WEIGHT LB.	WR ² LB-FT ²	MAX. RPM	WEIGHT LB.	WR ² LB-FT ²	MAX. RPM	WEIGHT LB.	WR ² LB-FT ²
122	3167	15	1.7	4119	15	1.7	5208	22	2.4
135	2874	17	2.4	3738	18	2.7	4726	27	3.9
150	2587	20	3.7	3364	21	4.1	4253	31	5.8
165	2352	24	5.7	3058	28	7	3867	38	8.4
182	2118	31	8.8	2729	39	10.8	3473	53	13.9
200	1932	38	12.5	2490	49	17.4	3169	63	19.8
222	1737	66	23.6	2238	74	28.8	2848	85	32
245	1577	81	38.3	2033	87	42.9	2587	110	50.9
270	1397	94	56.4	1803	103	64.6	2287	132	79.2
300	1257	113	88.8	1623	125	101	2059	172	139
330	1143	151	149	1475	167	158	1871	215	221
365	995	198	245	1283	214	260	1727	273	288
402	903	244	361	1163	254	382	1566	301	437
445	817	340	566	1052	392	692	1416	412	681
490	742	393	816	956	455	1001	1286	478	985
542	670	461	1209	863	542	1392	1162	604	1570
600	606	593	1954	780	642	2066	1050	793	2647
660	551	859	3008	710	975	3629	955	1068	4034

Windband Weights

FAN SIZE	WINDBAND (LBS.)
122	69
135	82
150	100
165	86
182	133
200	164
222	199
245	238
270	267
300	323
330	388
365	471
402	563
445	684
490	825
542	997
600	1214
660	1463

Table 3. BAIFE and BCIFE Shaft & Bearings

FAN SIZE	CLASS I				CLASS II				CLASS III				ARR. 1 & 9		ARR. 8	
	ARR. 1 & 9		ARR. 8		ARR. 10		ARR. 1 & 9		ARR. 8		ARR. 10		ARR. 1 & 9		ARR. 8	
	SHFT DIA.	BRG TYPE	SHFT DIA.	BRG TYPE	SHFT DIA.	BRG TYPE	SHFT DIA.	BRG TYPE	SHFT DIA.	BRG TYPE	SHFT DIA.	BRG TYPE	SHFT DIA.	BRG TYPE	SHFT DIA.	BRG TYPE
122	1	SDB	1	SDB	1	SDB	1	HDB (SDB)	1	SDB	1-3/16	SDB	-	-	-	-
135	1	SDB	1	SDB	1	SDB	1	HDB	1	SDB	1-3/16	SDB	-	-	-	-
150	1	SDB	1	SDB	1	SDB	1	HDB (SDB)	1	HDB	1-3/16	HDB (SDB)	-	-	-	-
165	1	SDB	1	SDB	1	SDB	1	1-3/16	1	HDB	1-3/16	HDB (SDB)	-	-	-	-
182	1-3/16	SDB	1	SDB	1-3/16	SDB	1-7/16	HDB	1	HDB	1-7/16	HDB	2-3/16	HDB	1-7/16	HDB
200	1-7/16	SDB	1	SDB	1-7/16	SDB	1-7/16	HDB	1	HDB	1-7/16	HDB	2-3/16	HDB	1-7/16	HDB
222	1-7/16	SDB	1	SDB	1-7/16	SDB	1-15/16	HDB	1-3/16	HDB	1-7/16	HDB	2-7/16	HDB	1-15/16	HDB
245	1-7/16	SDB	1-3/16	SDB	1-7/16	SDB	1-15/16	(2-3/16)	1-3/16	HDB	1-15/16	HDB	2-7/16	HDB	1-15/16	HDB
270	1-11/16	SDB	1-3/16	SDB	1-7/16	SDB	2-3/16	HDB	1-7/16	HDB	1-15/16	HDB	2-15/16	HDB	2-3/16	(1-11/16)
300	1-15/16	HDB	1-3/16	HDB	1-15/16	HDB	2-3/16	HDB	1-7/16	HDB	2-3/16	HDB	2-7/16	RB	1-11/16	RB
330	1-15/16	HDB	1-7/16	SDB	1-15/16	HDB	2-7/16	HDB	2-7/16	HDB	2-7/16	HDB	2-11/16	RB	1-15/16	RB
365	1-15/16	HDB	1-11/16	SDB	1-15/16	HDB	2-7/16	HDB	2-3/16	HDB	2-7/16	HDB	2-11/16	RB	1-15/16	RB
402	2-3/16	HDB	1-15/16	HDB	2-3/16	HDB	2-7/16	RB	2-3/16	HDB	2-7/16	HDB	2-15/16	RB	2-3/16	RB
445	2-7/16	HDB	2-3/16	HDB	2-7/16	HDB	2-11/16	RB	2-7/16	HDB	2-11/16	RB	3-7/16	RB	2-7/16	RB
490	2-11/16	HDB	2-7/16	HDB	2-11/16	HDB	2-15/16	RB	2-7/16	HDB	2-15/16	RB	3-7/16	RB	2-7/16	RB
542	2-15/16	HDB	2-11/16	HDB	2-15/16	HDB	3-7/16	RB	2-7/16	HDB	3-7/16	HDB	3-15/16	RB	3-7/16	RB
600	2-15/16	HDB	2-11/16	RB	2-15/16	HDB	3-7/16	RB	2-11/16	RB	3-7/16	RB	4-7/16	SRB	3-7/16	RB
660	3-7/16	RB	2-15/16	RB	-	RB	3-15/16	RB	3-7/16	RB	-	-	4-7/16	SRB	3-7/16	RB

Note: Italicized values within the parenthesis are for BCIFE. Other value is for BAIFE. Where only one value exists, sizes and bearings types are the same between BAIFE and BCIFE.

BAIFE WEIGHTS

Table 4. Arr. 1 BAIFE Bare Fan Weights (Lbs.)

FAN SIZE	CLASS I				CLASS II				CLASS III			
	HV	LV	MV	XV	HV	LV	MV	XV	HV	LV	MV	XV
122	303	271	302	304	303	271	302	304	-	-	-	-
135	363	349	351	354	364	350	352	355	-	-	-	-
150	423	418	421	424	426	421	424	427	-	-	-	-
165	469	464	467	471	475	469	472	476	-	-	-	-
182	667	661	665	691	678	672	676	702	697	691	695	721
200	786	778	782	813	797	789	793	824	833	825	829	860
222	984	974	980	1018	992	982	988	1026	1028	1018	1023	1062
245	1242	1230	1237	1283	1253	1241	1248	1294	1311	1298	1305	1352
270	1398	1398	1407	1464	1407	1407	1416	1473	1470	1470	1478	1535
300	1658	1640	1650	1721	1677	1659	1669	1740	1740	1722	1732	1803
330	2130	2109	2121	2208	2156	2134	2147	2233	2213	2191	2203	2290
365	2541	2515	2530	2636	2577	2551	2566	2672	2626	2599	2615	2720
402	3032	2676	3018	3147	3053	2697	3039	3168	3125	2769	3111	3241
445	4231	4193	4215	4373	4297	4258	4280	4439	4404	4365	4387	4546
490	4980	4933	4960	5153	5057	5010	5037	5229	5198	5151	5178	5370
542	5985	5928	5961	6197	6104	6047	6079	6316	6338	6281	6314	6550
600	7130	7060	7100	7390	7209	7139	7179	7469	7594	7524	7564	7854
660	8579	8495	8543	8894	8742	8658	8706	9057	9090	9006	9054	9405

Table 5. Arr. 4 BAIFE Bare Fan Weights (Lbs.)

FAN SIZE	CLASS I				CLASS II			
	HV	LV	MV	XV	HV	LV	MV	XV
122	312	280	280	313	312	280	280	313
135	380	365	365	370	381	366	366	371
150	432	428	428	434	433	429	429	435
165	505	499	499	506	509	503	503	510
182	723	718	718	747	731	726	726	755
200	844	836	836	871	855	847	847	882
222	1029	1019	1019	1063	1037	1027	1027	1071
245	1246	1233	1233	1287	1252	1239	1239	1293
270	1398	1398	1398	1464	1407	1407	1407	1473
300	1642	1624	1624	1705	1654	1636	1636	1717
330	2139	2117	2117	2216	2155	2133	2133	2232
365	2545	2519	2519	2640	2561	2535	2535	2656

Table 6. Arr. 9 BAIFE Bare Fan Weights (Lbs.)

FAN SIZE	CLASS I				CLASS II				CLASS III			
	HV	LV	MV	XV	HV	LV	MV	XV	HV	LV	MV	XV
122	348	340	347	349	348	340	347	349	-	-	-	-
135	428	408	416	419	429	409	417	420	-	-	-	-
150	480	471	478	481	483	475	481	484	-	-	-	-
165	523	515	520	524	529	522	527	531	-	-	-	-
182	740	728	738	764	753	741	751	777	776	764	775	800
200	875	858	872	902	886	869	883	913	914	928	928	959
222	1058	1045	1054	1092	1066	1053	1062	1100	1110	1097	1106	1144
245	1337	1326	1332	1379	1349	1338	1344	1391	1416	1405	1411	1457
270	1489	1490	1497	1554	1498	1499	1506	1563	1571	1572	1579	1637
300	1750	1729	1742	1813	1762	1741	1754	1825	1837	1816	1829	1900
330	2194	2177	2185	2271	2220	2202	2210	2297	2288	2270	2279	2365
365	2655	2633	2644	2750	2692	2669	2680	2786	2762	2740	2751	2857
402	3104	3081	3090	3219	3124	3102	3111	3240	3232	3210	3219	3348
445	4360	4338	4343	4502	4425	4403	4409	4567	4572	4551	4556	4714
490	5079	5059	5059	5252	5156	5136	5136	5328	5208	5188	5188	5381
542	6112	6088	6088	6324	6231	6206	6206	6442	6508	6484	6484	6720
600	7231	7201	7201	7491	7317	7287	7287	7577	7734	7704	7704	7993
660	8661	8625	8625	8976	8824	8789	8789	9139	9200	9164	9164	9515

Table 7. Arr. 10 BAIFE Bare Fan Weights (Lbs.)

FAN SIZE	CLASS I				CLASS II			
	HV	LV	MV	XV	HV	LV	MV	XV
122	327	295	295	328	330	299	299	331
135	392	378	378	383	397	383	383	388
150	447	442	442	448	452	447	447	454
165	505	500	500	507	502	496	496	504
182	709	704	704	733	725	720	720	749
200	817	809	809	845	836	828	828	863
222	1008	998	998	1042	1021	1011	1011	1055
245	1222	1210	1210	1263	1239	1227	1227	1280
270	1362	1362	1362	1428	1383	1383	1383	1449
300	1589	1571	1571	1652	1604	1586	1586	1667
330	2043	2021	2021	2120	2075	2053	2053	2152
365	2433	2407	2407	2528	2470	2444	2444	2565
402	2898	2542	2542	3014	2918	2561	2561	3033
445	4058	4019	4019	4200	4130	4091	4091	4272
490	4751	4703	4703	4923	4824	4777	4777	4997
542	5683	5626	5626	5895	5796	5739	5739	6008
600	6742	6672	6672	7002	6823	6753	6753	7083

Table 8. Arr. 1 BCIFE Bare Fan Weights (Lbs.)

FAN SIZE	CLASS I				CLASS II				CLASS III			
	HV	LV	MV	XV	HV	LV	MV	XV	HV	LV	MV	XV
122	303	271	302	304	306	274	305	307	-	-	-	-
135	363	349	351	354	364	350	352	355	-	-	-	-
150	423	418	421	424	426	421	424	427	-	-	-	-
165	469	464	467	471	475	469	472	476	-	-	-	-
182	667	661	665	691	678	672	676	702	697	691	695	721
200	786	778	782	813	797	789	793	824	821	813	817	848
222	984	974	980	1018	992	982	988	1026	1015	1005	1010	1049
245	1242	1230	1237	1283	1253	1241	1248	1294	1291	1278	1285	1332
270	1398	1398	1407	1464	1407	1407	1416	1473	1450	1450	1458	1515
300	1658	1640	1650	1721	1677	1659	1669	1740	1740	1722	1732	1803
330	2130	2109	2121	2208	2156	2134	2147	2233	2223	2201	2213	2300
365	2541	2515	2530	2636	2577	2551	2566	2672	2647	2620	2636	2741
402	3032	2676	3018	3147	3053	2697	3039	3168	3128	2772	3114	3244
445	4231	4193	4215	4373	4297	4258	4280	4439	4370	4331	4353	4512
490	4980	4933	4960	5153	5057	5010	5037	5229	5135	5088	5115	5307
542	5985	5928	5961	6197	6104	6047	6079	6316	6211	6154	6187	6423
600	7130	7060	7100	7390	7209	7139	7179	7469	7480	7410	7450	7740
660	8579	8495	8543	8894	8742	8658	8706	9057	8908	8824	8872	9223

Table 9. Arr. 4 BCIFE Bare Fan Weights (Lbs.)

FAN SIZE	CLASS I				CLASS II			
	HV	LV	MV	XV	HV	LV	MV	XV
122	312	280	280	313	315	283	283	316
135	380	365	365	370	381	366	366	371
150	432	428	428	434	433	429	429	435
165	505	499	499	506	509	503	503	510
182	723	718	718	747	731	726	726	755
200	844	836	836	871	855	847	847	882
222	1029	1019	1019	1063	1037	1027	1027	1071
245	1246	1233	1233	1287	1252	1239	1239	1293
270	1398	1398	1398	1464	1407	1407	1407	1473
300	1642	1624	1624	1705	1654	1636	1636	1717
330	2139	2117	2117	2216	2155	2133	2133	2232
365	2545	2519	2519	2640	2561	2535	2535	2656

Table 10. Derating Factors For High Temperature (BCIFE Only)

TEMP	CLASS	
	I	II
70	1	1
200	0.99	0.95
250	0.98	0.93
300	0.98	0.91
400	0.96	0.88
500	0.93	0.84
600	0.9	0.81
700	0.8	0.78
800	0.6	0.75

Table 11. Arr. 9 BCIFE Bare Fan Weights (Lbs.)

FAN SIZE	CLASS I				CLASS II				CLASS III			
	HV	LV	MV	XV	HV	LV	MV	XV	HV	LV	MV	XV
122	348	340	347	349	351	343	350	352	364	356	362	365
135	428	408	416	419	429	409	417	420	449	428	437	439
150	480	471	478	481	483	475	481	484	507	499	505	509
165	523	515	520	524	529	522	527	531	553	545	550	554
182	740	728	738	764	753	741	751	777	776	764	775	800
200	875	858	872	902	886	869	883	913	919	902	916	947
222	1058	1045	1054	1092	1066	1053	1062	1100	1097	1084	1093	1131
245	1337	1326	1332	1379	1349	1338	1344	1391	1396	1385	1391	1437
270	1489	1490	1497	1554	1498	1499	1506	1563	1551	1552	1559	1617
300	1750	1729	1742	1813	1762	1741	1754	1825	1837	1816	1829	1900
330	2194	2177	2185	2271	2220	2202	2210	2297	2298	2280	2289	2375
365	2655	2633	2644	2750	2692	2669	2680	2786	2783	2761	2772	2878
402	3104	3081	3090	3219	3124	3102	3111	3240	3235	3213	3222	3351
445	4360	4338	4343	4502	4425	4403	4409	4567	4538	4517	4522	4680
490	5079	5059	5059	5252	5156	5136	5136	5328	5145	5125	5125	5318
542	6112	6088	6088	6324	6231	6206	6206	6442	6381	6357	6357	6593
600	7231	7201	7201	7491	7317	7287	7287	7577	7620	7590	7590	7879
660	8661	8625	8625	8976	8824	8789	8789	9139	9018	8982	8982	9333

Table 12. Arr. 10 BCIFE Bare Fan Weights (Lbs.)

FAN SIZE	CLASS I				CLASS II			
	HV	LV	MV	XV	HV	LV	MV	XV
122	327	295	295	328	333	302	302	334
135	392	378	378	383	397	383	383	388
150	447	442	442	448	452	447	447	454
165	505	500	500	507	502	496	496	504
182	709	704	704	733	725	720	720	749
200	817	809	809	845	836	828	828	863
222	1008	998	998	1042	1021	1011	1011	1055
245	1222	1210	1210	1263	1239	1227	1227	1280
270	1362	1362	1362	1428	1383	1383	1383	1449
300	1589	1571	1571	1652	1604	1586	1586	1667
330	2043	2021	2021	2120	2075	2053	2053	2152
365	2433	2407	2407	2528	2470	2444	2444	2565
402	2898	2542	2542	3014	2918	2561	2561	3033
445	4058	4019	4019	4200	4130	4091	4091	4272
490	4751	4703	4703	4923	4824	4777	4777	4997
542	5683	5626	5626	5895	5796	5739	5739	6008
600	6742	6672	6672	7002	6823	6753	6753	7083



PERFORMANCE DATA

122 BAIFE

Impeller Type: Airfoil
Max Class I RPM = 3990
Impeller Dia.: 12.25"
Max Class II RPM = 4600

Windband Outlet Area: 1.80 ft²
Tip Speed FPM = 3.21 x RPM

LV (Low Velocity Nozzle)

Nozzle Outlet Area: 0.537 ft²

FAN INLET CFM	NOZ- ZLE OV	0.5" SP			1" SP			2" SP			3" SP			4" SP			5" SP			6" SP			7" SP		
		RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW
625	1164	1292	0.09	1147	1560	0.16	1175	2008	0.33	1267	2628	0.76	1898	2914	1.02	1954	3182	1.31	2020						
1000	1862	1726	0.20	1804	1955	0.30	1822	2319	0.52	1859	2995	1.11	2536	3240	1.42	2560	3467	1.75	2588	3684	2.09	2622	3893	2.45	2662
1375	2561	2202	0.38	2468	2393	0.52	2481	2721	0.82	2509	3406	1.59	3187	3634	1.97	3211	3839	2.34	3228	4034	2.73	3249	4219	3.14	3270
1750	3259	2703	0.68	3129	2863	0.86	3149	3150	1.22	3160	3837	2.20	3839	4051	2.66	3861	4248	3.11	3883	4430	3.57	3900			
2125	3957	3221	1.13	3796	3352	1.33	3808	3607	1.77	3833	4291	3.00	4511	4485	3.50	4514									
2500	4655	3747	1.75	4463	3857	1.98	4470	4082	2.49	4499															
2875	5354	4278	2.58	5131	4374	2.84	5137	4568	3.39	5156															

LV7 (Low Velocity Nozzle)

Nozzle Outlet Area: 0.537 ft²

FAN INLET CFM	NOZ- ZLE OV	0.5" SP			1" SP			2" SP			3" SP			4" SP			5" SP			6" SP			7" SP			
		RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	
400	745	1202	0.05	715	1522	0.10	734	2281	0.34	1262	2642	0.54	1283	2955	0.76	1320	3215	0.98	1358	3457	1.21	1397	3799	1.86	1854	
700	1304	1640	0.11	1226	1878	0.17	1235	2281	0.50	1763	2969	0.72	1784	3237	0.96	1801	3493	1.23	1817	3745	1.53	1832	3979			
1000	1862	2152	0.22	1737	2336	0.31	1752	2669	0.74	2280	3376	0.99	2286	3619	1.26	2304	3845	1.56	2319	4055	1.86	2332	4256	2.18	2345	
1300	2421	2702	0.42	2253	2842	0.52	2262	3120	0.74	2807	4044	1.67	2809	4247	1.99	2819	4442	2.33	2833							
1600	2980	3268	0.72	2770	3379	0.83	2775	3611	1.10	2794	3834	1.38	2807	4044	1.67	2809	4247	1.99	2819	4442	2.33	2833				
1900	3538	3843	1.16	3288	3936	1.29	3292	4127	1.57	3304	4323	1.89	3321	4511	2.23	3332										
2200	4097	4422	1.75	3806	4502	1.90	3809																			

LV5 (Low Velocity Nozzle)

Nozzle Outlet Area: 0.537 ft²

FAN INLET CFM	NOZ- ZLE OV	0.5" SP			1" SP			2" SP			3" SP			4" SP			5" SP			6" SP			7" SP			
		RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	
300	559	1216	0.04	523	1547	0.08	522	2022	0.19	564	2685	0.43	911	2999	0.61	931	3263	0.79	957	3509	0.99	984				
525	978	1621	0.08	925	1889	0.13	918	2316	0.27	914	3004	0.57	1308	3286	0.76	1305	3553	0.99	1304	3806	1.23	1301	4039	1.49	1310	
750	1397	2087	0.15	1327	2307	0.22	1322	2684	0.38	1310	3385	0.76	1712	3650	0.99	1703	3889	1.23	1700	4111	1.48	1698	4322	1.74	1697	
975	1816	2591	0.27	1728	2769	0.36	1725	3095	0.55	1712																
1200	2235	3116	0.46	2130	3259	0.56	2125	3544	0.78	2121	3802	1.02	2108	4042	1.27	2099	4268	1.54	2097	4480	1.83	2095				
1425	2654	3651	0.73	2532	3771	0.84	2527	4014	1.09	2522	4249	1.36	2518	4466	1.64	2506										
1650	3073	4192	1.10	2934	4296	1.22	2929	4504	1.48	2921																

MV7 (Medium Velocity Nozzle)

Nozzle Outlet Area: 0.403 ft²

FAN INLET CFM	NOZ- ZLE OV	0.5" SP			1" SP			2" SP			3" SP			4" SP			5" SP			6" SP			7" SP			
		RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	
575	1427	1282	0.09	1239	1560	0.16	1317	2317	0.52	2064	2632	0.76	2138	2917	1.01	2181	3202	1.30	2241							
925	2295	1713	0.20	1910	1944	0.30	1969	2317	0.50	2064	2990	1.12	2783	3243	1.43	2861	3477	1.76	2922	3692	2.09	2959	3897	2.43	2986	
1275	3164	2198	0.40	2162	2380	0.54	2638	2710	0.83	2721	3395	1.62	3456	3624	1.99	3501	3837	2.37	3555	4037	2.76	3616	4228	3.17	3675	
1625	4032	2708	0.73	3332	2855	0.90	3331	3139	1.26	3394	3825	2.28	4127	4040	2.72	4183	4236	3.16	4221	4421	3.61	4258	4598	4.07	4303	
1975	4901	3228	1.22	4057	3357	1.42	4046	3592	1.84	4063	4274	3.11	4792	4473	3.63	4850										
2325	5769	3756	1.90	4785	3869	2.14	4768	4075	2.62	4764																
2675	6638	4288	2.81	5512	4389	3.08	5493	4576	3.63	5479																

MV5 (Medium Velocity Nozzle)

Nozzle Outlet Area: 0.403 ft²

FAN INLET CFM	NOZ- ZLE OV	0.5" SP			1" SP			2" SP
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HV (High Velocity Nozzle)Nozzle Outlet Area: 0.268 ft²

FAN INLET CFM	NOZ- ZLE OV	0.5" SP			1" SP			2" SP			3" SP			4" SP			5" SP			6" SP			7" SP			
		RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	
500	1866	1281	0.09	1306	1555	0.15	1349	2067	0.32	1377	2637	0.74	2188	2964	1.00	2222	3271	1.29	2201				3024	3944	2.40	3048
800	2985	1719	0.21	1995	1938	0.30	2053	2297	0.50	2125	2969	1.09	2903	3213	1.38	2930	3462	1.69	2978	3706	2.04	3024	4191	3.04	3746	
1100	4104	2197	0.42	2703	2382	0.55	2747	2697	0.81	2833	3377	1.60	3589	3604	1.95	3661	3806	2.30	3698	3995	2.66	3715				
1400	5224	2696	0.78	3432	2854	0.94	3451	3132	1.26	3521																
1700	6343	3209	1.30	4172	3344	1.49	4171	3592	1.88	4222	3814	2.28	4278	4017	2.68	4333	4211	3.10	4393	4395	3.53	4452	4562	3.95	4483	
2000	7463	3729	2.04	4914	3847	2.26	4904	4068	2.71	4927	4272	3.17	4979	4460	3.64	5026										
2300	8582	4254	3.02	5658	4359	3.27	5643	4557	3.78	5646																

HV7 (High Velocity Nozzle)Nozzle Outlet Area: 0.268 ft²

FAN INLET CFM	NOZ- ZLE OV	0.5" SP			1" SP			2" SP			3" SP			4" SP			5" SP			6" SP			7" SP					
		RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW			
425	1586	1307	0.07	1112	1573	0.12	1147	2084	0.26	1164	2656	0.57	1846	2984	0.79	1872	3297	1.04	1855				3727	1.56	2538	3968	1.86	2561
675	2519	1763	0.15	1695	1975	0.22	1740	2324	0.38	1795	3005	0.81	2445	3244	1.04	2467	3487	1.29	2506	3727	1.56	2538						
925	3451	2256	0.30	2293	2436	0.40	2326	2742	0.60	2394	3431	1.16	3027	3652	1.43	3083	3846	1.71	3107	4034	1.99	3123	4226	2.29	3150			
1175	4384	2770	0.55	2910	2923	0.66	2921	3194	0.91	2975	4359	2.26	4202	4541	2.61	4237												
1425	5317	3296	0.91	3534	3428	1.05	3529	3670	1.34	3567	3885	1.64	3609	4083	1.95	3653	4272	2.27	3701	4450	2.60	3744						
1675	6250	3830	1.41	4161	3945	1.58	4148	4161	1.91	4164																		
1925	7183	4368	2.09	4789	4471	2.27	4773																					

HV5 (High Velocity Nozzle)Nozzle Outlet Area: 0.268 ft²

FAN INLET CFM	NOZ- ZLE OV	0.5" SP			1" SP			2" SP			3" SP			4" SP			5" SP			6" SP			7" SP					
		RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW			
325	1213	1289	0.05	815	1565	0.09	838	2080	0.21	847	2658	0.45	1370	2985	0.63	1390	3296	0.83	1378				3737	1.24	1898	3974	1.49	1912
525	1959	1726	0.11	1259	1959	0.17	1296	2323	0.30	1333	3007	0.63	1829	3254	0.81	1845	3498	1.02	1873	4052	1.56	2346	4246	1.81	2364			
725	2705	2198	0.21	1714	2401	0.29	1741	2733	0.45	1794	3425	0.88	2277	3658	1.11	2319	3859	1.33	2334									
925	3451	2690	0.37	2181	2868	0.47	2195	3168	0.67	2236																		
1125	4198	3195	0.61	2654	3351	0.73	2654	3626	0.97	2689	3863	1.22	2722	4076	1.48	2753	4278	1.74	2792	4463	2.01	2822						
1325	4944	3708	0.95	3130	3847	1.09	3124	4096	1.37	3142	4319	1.66	3174	4519	1.95	3201												
1525	5690	4227	1.40	3608	4351	1.56	3597	4578	1.87	3601																		

XV (Extra High Velocity Nozzle)Nozzle Outlet Area: 0.134 ft²

FAN INLET CFM	NOZ- ZLE OV	0.5" SP			1" SP			2" SP			3" SP			4" SP			5" SP			6" SP			7" SP					
		RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW			
450	3358	1513	0.14	1622	1817	0.23	1659	2297	0.42	1726	2951	0.93	2447	3268	1.21	2493												
650	4851	1953	0.32	2310	2166	0.42	2339	2591	0.66	2392	3261	1.34	3114	3555	1.68	3147	3825	2.03	3193	4076	2.40	3239	4309	2.77	3260			
850	6343	2466	0.63	3022	2597	0.74	3019	2931	1.02	3075	3606	1.90	3795	3880	2.30	3829	4132	2.70	3857	4368	3.12	3885	4591	3.54	3920			
1050	7836	2945	1.10	3719	3082	1.25	3735	3333	1.55	3745																		
1250	9328	3452	1.78	4416	3578	1.97	4442	3786	2.30	4440	4005	2.68	4465	4235	3.10	4510	4467	3.56	4540									
1450	10821	3964	2.69	5111	4078	2.92	5140	4273	3.33	5158	4447	3.71	5151															
1650	12313	4479	3.89	5806	4583	4.15	5836																					

XV7 (Extra High Velocity Nozzle)Nozzle Outlet Area: 0.134 ft²

FAN INLET CFM	NOZ- ZLE OV	0.5" SP			1" SP			2" SP			3" SP			4" SP			5" SP			6" SP		
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PERFORMANCE DATA

135 BAIFE

Impeller Type: Airfoil **Max Class I RPM = 3265**
Impeller Dia.: 13.50" **Max Class II RPM = 4259**

Windband Outlet Area: 2.18 ft²

LV (Low Velocity Nozzle)

Nozzle Outlet Area: 0.652 ft²

LV7 (Low Velocity Nozzle)

Nozzle Outlet Area: 0.652 ft²

LV5 (Low Velocity Nozzle)

Nozzle Outlet Area: 0.652 ft²

MV (Medium Velocity Nozzle)

Nozzle Outlet Area: 0.489 ft²

MV7 (Medium Velocity Nozzle)

Nozzle Outlet Area: 0.489 ft²

MV5 (Medium Velocity Nozzle)

Nozzle Outlet Area: 0.489 ft²

Class II = Light Blue section

Underlined figures indicate maximum static efficiency.

NOTES-

- NOTES:**

 1. Performance certified is for installation Type A: Free inlet, free outlet.
 2. Power rating (BHP) does not include transmission losses.
 3. Performance ratings do not include the effects of appurtenances (accessories).
 4. Performance ratings do not include the effects of crosswinds.

HV (High Velocity Nozzle)

Nozzle Outlet Area: 0.326 ft²

FAN INLET CFM	NOZ- ZLE OV	0.5" SP			1" SP			2" SP			3" SP			4" SP			5" SP			6" SP			7" SP		
		RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW
600	1840	1112	0.10	1449	1394	0.19	1512	2043	0.62	2400	2386	0.93	2472	2706	1.28	2458	3121	2.12	3335	3363	2.57	3426	3597	3.05	3426
975	2991	1473	0.25	2235	1689	0.36	2322	3101	0.99	3223	2617	1.32	3275	2871	1.70	3335	3363	2.81	4158	3563	3.29	4232	3761	3.80	4286
1350	4141	1872	0.51	3039	2054	0.66	3101	2362	0.99	3223	2958	1.95	4094	3170	2.37	4158	3363	2.81	4185	3563	3.29	4232	3761	3.80	4286
1725	5291	2292	0.93	3867	2448	1.13	3902	2718	1.53	3995	4093	5.28	6465												
2100	6442	2724	1.56	4708	2859	1.80	4716	3102	2.29	4792	3317	2.78	4868	3515	3.29	4945	3703	3.81	5024	3871	4.32	5064	4029	4.84	5086
2475	7592	3164	2.44	5556	3282	2.73	5548	3500	3.31	5595	3699	3.89	5663	3880	4.46	5726	4051	5.05	5791	4216	5.65	5861			
2850	8742	3608	3.62	6404	3713	3.95	6388	3910	4.61	6407															

HV7 (High Velocity Nozzle)

Nozzle Outlet Area: 0.326 ft²

FAN INLET CFM	NOZ- ZLE OV	0.5" SP			1" SP			2" SP			3" SP			4" SP			5" SP			6" SP			7" SP			
		RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	
500	1534	1119	0.08	1208	1399	0.14	1255				2392	0.71	2027													
800	2454	1479	0.17	1849	1691	0.26	1918	2043	0.46	1975																
1100	3374	1873	0.34	2501	2052	0.45	2548	2356	0.70	2647	2610	0.96	2677	2865	1.26	2728	3119	1.59	2769	3370	1.97	2787	3611	2.39	2769	
1400	4294	2286	0.60	3167	2441	0.75	3198	2708	1.05	3270	2946	1.36	3354	3150	1.68	3385	3350	2.03	3411	3551	2.40	3453	3750	2.80	3493	
1700	5215	2711	0.99	3848	2846	1.17	3856	3087	1.53	3916	3299	1.89	3974	3497	2.28	4044	3679	2.66	4097	3841	3.05	4111	4005	3.46	4130	
2000	6135	3142	1.54	4532	3261	1.75	4525	3479	2.17	4567	3675	2.59	4618	3855	3.02	4668	4026	3.46	4724	4189	3.92	4785				
2300	7055	3579	2.27	5219	3685	2.50	5205	3882	2.98	5222	4064	3.47	5270	4232	3.96	5313										

HV5 (High Velocity Nozzle)

Nozzle Outlet Area: 0.326 ft²

FAN INLET CFM	NOZ- ZLE OV	0.5" SP			1" SP			2" SP			3" SP			4" SP			5" SP			6" SP			7" SP			
		RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	
400	1227	1132	0.06	922	1409	0.12	957	2074	0.37	1523	2409	0.58	1565	2730	0.83	1560										
650	1994	1499	0.13	1434	1722	0.21	1484	2048	0.57	2059	2664	0.78	2084	2913	1.03	2117	3155	1.31	2151	3395	1.62	2171	3629	1.96	2173	
900	2761	1895	0.26	1952	2090	0.36	1987	2408	0.57	2059	3017	1.11	2169	3229	1.38	2650	3424	1.67	2664	3620	1.98	2689	3811	2.31	2717	
1150	3528	2308	0.46	2479	2482	0.59	2505	2769	0.84	2559																
1400	4294	2734	0.75	3019	2887	0.91	3025	3153	1.22	3073	3379	1.53	3117	3585	1.85	3165	3775	2.18	3209	3943	2.52	3227	4102	2.86	3237	
1650	5061	3168	1.16	3562	3304	1.34	3557	3547	1.71	3590	3760	2.07	3629	3951	2.44	3666	4130	2.81	3706							
1900	5828	3607	1.71	4107	3729	1.92	4096	3952	2.33	4111	4005	5.14	6173	4191	5.73	6216										

XV (Extra High Velocity Nozzle)

Nozzle Outlet Area: 0.163 ft²

FAN INLET CFM	NOZ- ZLE OV	0.5" SP			1" SP			2" SP			3" SP			4" SP			5" SP			6" SP			7" SP			
		RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	
550	3374	1322	0.17	1824	1615	0.27	1868	2282	0.77	2636	2626	1.11	2712													
775	4755	1634	0.35	2518	1866	0.48	2570	3261	1.15	3333	2847	1.53	3382	3131	1.94	3448	3390	2.38	3500							
1000	6135	2002	0.66	3252	2167	0.80	3261	2527	1.15	3333	3096	2.11	4085	3362	2.57	4122	3607	3.05	4165	3835	3.56	4224	4050	4.10	4275	
1225	7515	2381	1.13	3977	2516	1.29	3978	2802	1.67	4036																
1450	8896	2765	1.78	4694	2891	1.99	4715	3117	2.39	4722	3365	2.87	4785	3615	3.39	4827	3848	3.93	4864	4064	4.48	4893				
1675	10276	3154	2.65	5411	3271	2.91	5442	3465	3.36	5438	3671	3.87	5472	3887	4.42	5529	4104	5.02	5565							
1900	11656	3545	3.78	6125	3653	4.09	6160	3836	4.63	6176	4005	5.14	6173	4191	5.73	6216										

XV7 (Extra High Velocity Nozzle)

Nozzle Outlet Area: 0.163 ft²

FAN INLET CFM	NOZ- ZLE OV	0.5" SP			1" SP			2" SP			3" SP			4" SP			5" SP			6" SP		
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PERFORMANCE DATA

150 BAIFE

Impeller Type: Airfoil **Max Class I RPM = 3260**
Impeller Dia : 15.00" **Max Class II RPM = 4252**

Windband Outlet Area: 2.70 ft²

LV (Low Velocity Nozzle)

Nozzle Outlet Area: 0.805 ft²

LV7 (Low Velocity Nozzle)

Nozzle Outlet Area: 0.805 ft²

LV5 (Low Velocity Nozzle)

Nozzle Outlet Area: 0.805 ft²

MV (Medium Velocity Nozzle)

Nozzle Outlet Area: 0.603 ft²

MV7 (Medium Velocity Nozzle)

Nozzle Outlet Area: 0.603 ft²

MV5 (Medium Velocity Nozzle)

Nozzle Outlet Area: 0.603 ft²

Class II = Light Blue section

Underlined figures indicate maximum static efficiency.

NOTES:

- NOTES:**

 1. Performance certified is for installation Type A: Free inlet, free outlet.
 2. Power rating (BHP) does not include transmission losses.
 3. Performance ratings do not include the effects of appurtenances (accessories).
 4. Performance ratings do not include the effects of crosswinds.

PERFORMANCE DATA

182 BAIFE

Impeller Type: Airfoil
Max Class I RPM = 2294
Impeller Dia.: 18.25" Max Class II RPM = 2902

Max Class III RPM = 3701
Tip Speed FPM = 4.78 x RPM

Windband Outlet Area: 3.99 ft²

LV (Low Velocity Nozzle)

Nozzle Outlet Area: 1.20 ft²

FAN INLET CFM	NOZ- ZLE OV	1" SP			3" SP			5" SP			7" SP			9" SP			11" SP			13" SP			15" SP			
		RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW													
1475	1234	925	0.34	2600	1663	2.04	5141	2025	3.37	5220	2357	4.92	5247													
2950	2469	1249	0.91	5003	2159	3.66	7552	2268	5.35	7647	2526	7.13	7716	2774	9.06	7787	3009	11.11	7831	3237	13.33	7880	3456	15.69	7891	
4425	3703	1687	2.16	7495	2386	6.27	9931	2609	8.32	10061	2830	10.54	10136	3035	12.80	10199	3229	15.13	10252	3421	17.60	10304	3607	20.15	10351	
5900	4937																									
7375	6172	2644	7.93	12654	2831	10.23	12464	3011	12.63	12431	3188	15.17	12541	3367	17.86	12612	3542	20.66	12665							
8850	7406	3136	13.08	15201	3297	15.86	15081	3449	18.64	14915	3598	21.53	14907													
10325	8640	3633	20.18	17746																						

LV7 (Low Velocity Nozzle)

Nozzle Outlet Area: 1.20 ft²

FAN INLET CFM	NOZ- ZLE OV	1" SP			3" SP			5" SP			7" SP			9" SP			11" SP			13" SP			15" SP				
		RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW														
1200	1004	954	0.27	2033	1714	1.56	3964	2057	2.61	3899	2383	3.78	3936														
2325	1946	1298	0.66	3877	2051	2.66	5812	2336	3.99	5887	2593	5.40	5883	2828	6.90	5828	3052	8.51	5793	3277	10.25	5864	3493	11.99	5853		
3450	2887	1715	1.43	5637	2443	4.32	7569	2688	5.98	7692	2910	7.69	7773	3118	9.47	7804	3315	11.33	7808	3502	13.27	7794	3679	15.26	7750		
4575	3828	2170	2.76	7444																							
5700	4770	2641	4.83	9260	2864	6.71	9329	3080	8.71	9453	3278	10.77	9552	3462	12.87	9632	3637	15.02	9687								
6825	5711	3121	7.82	11082	3309	10.02	11123	3493	12.33	11202	3673	14.75	11309														
7950	6653	3606	11.91	12904																							

LV5 (Low Velocity Nozzle)

Nozzle Outlet Area: 1.20 ft²

FAN INLET CFM	NOZ- ZLE OV	1" SP			3" SP			5" SP			7" SP			9" SP			11" SP			13" SP			15" SP				
		RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW											
850	711	950	0.20	1418	1730	1.23	2910	2081	2.07	2885	2382	2.99	2741														
1750	1464	1284	0.48	2949	2059	2.04	4438	2364	3.16	4407	2635	4.34	4407	2878	5.58	4419	3102	6.87	4387	3310	8.22	4306	3507	9.62	4206		
2650	2218	1711	1.03	4419	2059	2.04	5973	2713	4.63	5959	2947	6.09	5918	3170	7.61	5904	3378	9.18	5900	3571	10.78	5905					
3550	2971	2173	2.00	5895	2460	3.26	5973				3318	8.37	7490	3509	10.16	7443	3694	12.00	7417								
4450	3724	2653	3.52	7384	2894	5.04	7427	3114	6.66	7493																	
5350	4477	3143	5.73	8877	3349	7.51	8897	3542	9.38	8949																	
6250	5230	3639	8.78	10372																							

MV7 (Medium Velocity Nozzle)

Nozzle Outlet Area: 0.896 ft²

FAN INLET CFM	NOZ- ZLE OV	1" SP			3" SP			5" SP			7" SP			9" SP			11" SP			13" SP			15" SP				
		RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW														
1075	1200	908	0.27	2248	1637	1.83	5076	2034	3.13	5127	2380	4.64	5229	2681	6.31	5135											
2475	2762	1186	0.78	5008	2059	3.41	7816	2236	4.98	7868	2516	6.71	7961	2780	8.59	7925	3031	10.64	7949	3273	12.87	8083	3499	15.20	8170		
3875	4325	1619	1.99	7729	1940	3.41	8818	2707	6.16	8888	2928	7.84	8882	3134	9.59	8858	3329	11.41	8827	3519	13.30	8835					
5275	5887	2096	4.25	10513	2346	6.09	10609	2579	8.04	10662	2799	10.08	10612	3015	12.26	10690	3225	14.56	10797	3428	16.97	10839	3624	19.47	10814		
6675	7450	2590	7.94	13307	2793	10.22	13321	2987	12.58	13435	3174	15.04	13508	3351	17.55	13466	3524	20.15	13429	3696	22.87	13475					
8075	9012	3094	13.45	16111	3264	16.16	16095	3429	18.96	16141	3589	21.82	16240														
9475	10575	3602	21.13	18908																							

MV5 (Medium Velocity Nozzle)

Nozzle Outlet Area: 0.896 ft²

FAN INLET CFM	NOZ- ZLE OV	1" SP			3" SP			5" SP			7" SP			9" SP			11" SP			13" SP			15" SP		
		RPM	BHP	OUT FLOW	RPM	BHP																			

PERFORMANCE DATA

200 BAIFE

Impeller Type: Airfoil

Max Class I RPM = 2093

Max Class III RPM = 3377

Tip Speed FPM = 5.24 x RPM

Windband Outlet Area: 4.80 ft²

LV (Low Velocity Nozzle)

Nozzle Outlet Area: 1.43 ft²

LV7 (Low Velocity Nozzle)

Nozzle Outlet Area: 1.43 ft²

LV5 (Low Velocity Nozzle)

Nozzle Outlet Area: 1.43 ft²

MV (Medium Velocity Nozzle)

Nozzle Outlet Area: 1.08 ft²

MV7 (Medium Velocity Nozzle)

Nozzle Outlet Area: 1.08 ft²

MV5 (Medium Velocity Nozzle)

Nozzle Outlet Area: 1.08 ft²

Class II = Light Blue section

Class III = Dark Blue section

Underlined figures indicate maximum static efficiency.

NOTES.

- NOTES:**

 1. Performance certified is for installation Type A: Free inlet, free outlet.
 2. Power rating (BHP) does not include transmission losses.
 3. Performance ratings do not include the effects of appurtenances (accessories).
 4. Performance ratings do not include the effects of crosswinds.

HV (High Velocity Nozzle)Nozzle Outlet Area: 0.716 ft²

FAN INLET CFM	NOZ- ZLE OV	1" SP			3" SP			5" SP			7" SP			9" SP			11" SP			13" SP			15" SP			
		RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW													
1075	1501	852	0.32	2799	1544	2.15	6395	1913	3.68	6490	2224	5.42	6483	2489	7.28	6262	2729	9.29	6104							
2500	3492	1099	0.92	6211	1809	4.03	9833	2105	5.87	9988	2374	7.90	10041	2621	10.10	10050	2855	12.53	10113	3075	15.12	10183	3279	17.83	10212	
3925	5482	1490	2.42	9581	2167	7.31	13138	2401	9.54	13345	2625	11.94	13528	2839	14.48	13605	3042	17.16	13652	3235	19.98	13680				
5350	7472	1923	5.26	13058																						
6775	9462	2374	9.91	16566	2573	12.48	16532	2762	15.10	16652	2947	17.88	16803	3128	20.82	16977	3304	23.89	17113							
8200	11453	2834	16.87	20079	3002	19.96	20007	3163	23.08	20037	3318	26.24	20136													
9625	13443	3298	26.59	23584																						

HV7 (High Velocity Nozzle)Nozzle Outlet Area: 0.716 ft²

FAN INLET CFM	NOZ- ZLE OV	1" SP			3" SP			5" SP			7" SP			9" SP			11" SP			13" SP			15" SP		
		RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW												
1250	1746	897	0.33	3191	1591	1.88	5955	1931	3.09	6108	2400	6.38	8759	2639	8.13	8899	2859	9.98	8977	3064	11.92	8908			
2350	3282	1203	0.86	5860	1890	3.32	8641	2155	4.79	8690	2677	9.33	11424	2871	11.30	11469	3057	13.36	11515	3242	15.57	11600			
3450	4818	1580	1.93	8453	2185	5.55	11288	2469	7.41	11392	2668	9.17	14129	3176	15.71	14158	3341	18.12	14191						
4550	6355	1985	3.80	11082	2241																				
5650	7891	2405	6.70	13733	2620	8.83	13868	2819	11.05	14046	3003	13.35	14129												
6750	9427	2833	10.90	16391	3017	13.40	16481	3192	16.01	16627	3357	18.67	16774												
7850	10964	3266	16.64	19053																					

HV5 (High Velocity Nozzle)Nozzle Outlet Area: 0.716 ft²

FAN INLET CFM	NOZ- ZLE OV	1" SP			3" SP			5" SP			7" SP			9" SP			11" SP			13" SP			15" SP		
		RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW
775	1082	844	0.21	1875	1547	1.35	4212	1887	2.31	4189	2190	3.41	4301	2471	4.67	4638	2819	7.80	6485	3025	9.39	6500	3222	11.08	6562
1725	2409	1137	0.55	4164	1809	2.40	6451	2128	3.61	6538	2375	4.91	6549	2603	6.30	6497	3053	10.56	8887	3230	12.34	8861			
2675	3736	1521	1.28	6416	1853	2.40	8742	2454	5.58	8737	2668	7.17	8772	2866	8.83	8851	3053	13.75	10512	3254	16.30	10595			
3625	5063	1941	2.58	8639	2218	4.06																			
4575	6390	2382	4.68	10876	2609	6.47	10973	2821	8.36	11034	3011	10.28	11035	3188	12.25	11031	3355	14.26	11066						
5525	7716	2831	7.76	13107	3023	9.87	13199	3208	12.10	13274															
6475	9043	3287	12.05	15348																					

XV (Extra High Velocity Nozzle)Nozzle Outlet Area: 0.359 ft²

FAN INLET CFM	NOZ- ZLE OV	1" SP			3" SP			5" SP			7" SP			9" SP			11" SP			13" SP			15" SP		
		RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW												
925	2577	957	0.41	2975	1695	2.30	5494	2041	3.77	5691															
1725	4805	1259	1.06	5350	1993	4.07	7904	2291	5.85	7977	2555	7.80	8084	2796	9.92	8218	3019	12.15	8351	3229	14.47	8459			
2525	7033	1618	2.41	7811	1993	4.07	7904	2291	5.85	7977	2836	11.35	10460	3051	13.75	10512	3254	16.30	10595						
3325	9262	2013	4.78	10268	2324	6.83	10269	2599	9.06	10398	3152	16.33	12870	3354	19.14	12944									
4125	11490	2425	8.49	12694	2686	10.93	12755	2928	13.56	12755															
4925	13719	2846	13.85	15116	3070	16.70	15241	3283	19.73	15211															
5725	15947	3274	21.21	17546																					

XV7 (Extra High Velocity Nozzle)Nozzle Outlet Area: 0.359 ft²

FAN INLET CFM	NOZ- ZLE OV	1" SP			3" SP			5" SP			7" SP			9" SP			11" SP			13" SP			15" SP		
		RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW
900	2507	959	0.34	2965	1681	1.85	5337	2045	3.09	5410	2530	6.20	7766	2787	7.97	7854	3018	9.89	7784	3239	11.95	7827			
1625	4526	1251	0.86	5144	1952	3.18	7460	2251	4.59</td																

PERFORMANCE DATA

222 BAIFE

Impeller Type: Airfoil
Max Class I RPM = 1881
Impeller Dia.: 22.25"
Max Class II RPM = 2381

Max Class III RPM = 3036
Tip Speed FPM = 5.84 x RPM

Windband Outlet Area: 5.94 ft²

LV (Low Velocity Nozzle)

Nozzle Outlet Area: 1.78 ft²

FAN INLET CFM	NOZ-ZLE OV	1" SP			3" SP			5" SP			7" SP			9" SP			11" SP			13" SP			15" SP			
		RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW													
2200	1239	759	0.50	3871	1026	1.36	7453	1365	3.05	7659	1662	5.02	7790	1934	7.33	7850										
4400	2477	1026	1.36	7453	1388	3.23	1184	1631	5.47	11268	1863	7.99	11404	2074	10.64	11507	2277	13.51	11612	2470	16.57	11694	2656	19.87	11750	
6600	3716	1388	3.23	1184	1776	6.59	15054	1962	9.38	14812	2144	12.44	15001	2325	15.74	15115	2493	19.13	15210	2652	22.60	15294	2809	26.26	15371	
8800	4955	1776	6.59	15054	2175	11.89	18867	2329	15.34	18598	2476	18.92	18542	2621	22.70	18709	2767	26.71	18811	2910	30.86	18888				
11000	6194	2175	11.89	18867	2581	19.64	22674	2713	23.79	22502	2836	27.91	22244	2959	32.24	22239										
13200	7432	2581	19.64	22674	2990	30.31	26469																			
15400	8671	2990	30.31	26469																						

LV7 (Low Velocity Nozzle)

Nozzle Outlet Area: 1.78 ft²

FAN INLET CFM	NOZ-ZLE OV	1" SP			3" SP			5" SP			7" SP			9" SP			11" SP			13" SP			15" SP			
		RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW													
1800	1014	785	0.40	3057	1068	0.99	5791	1409	2.34	5929	1690	3.90	5843	1956	5.65	5900										
3475	1957	1068	0.99	5791	1412	2.15	8417	1686	3.98	8671	1919	5.95	8781	2130	8.07	8783	2323	10.32	8713	2506	12.71	8655	2689	15.28	8742	
5150	2900	1412	2.15	8417	1785	4.13	11099	2009	6.47	11292	2209	8.93	11469	2391	11.49	11593	2562	14.16	11647	2723	16.92	11651	2876	19.80	11630	
6825	3843	1785	4.13	11099	2173	7.24	13810	2355	10.04	13910	2532	13.03	14097	2694	16.09	14243	2844	19.21	14356	2988	22.43	14444				
8500	4786	2173	7.24	13810	2567	11.72	16519	2721	15.00	16581	2872	18.46	16702	3019	22.05	16861										
10175	5729	2567	11.72	16519	2966	17.86	19235																			
11850	6672	2966	17.86	19235																						

LV5 (Low Velocity Nozzle)

Nozzle Outlet Area: 1.78 ft²

FAN INLET CFM	NOZ-ZLE OV	1" SP			3" SP			5" SP			7" SP			9" SP			11" SP			13" SP			15" SP				
		RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW														
1275	718	781	0.30	2128	1419	1.83	4326	1707	3.07	4290	1954	4.44	4079														
2600	1464	1053	0.71	4381	2011	4.80	8834	2219	6.84	8809	2411	8.99	8744	2595	11.24	8731	2766	13.57	8728	2925	15.95	8741					
3925	2210	1399	1.52	6542	2072	6.24	12722	2355	10.04	13910	2532	13.03	14097	2694	16.09	14243	2844	19.21	14356	2988	22.43	14444					
5250	2956	1775	2.94	11722	2323	11.00	13139	2581	14.99	16581	2872	18.46	16702	3019	22.05	16861											
6575	3702	2165	5.16	10916	2363	7.40	10976	2544	9.79	11071	2712	12.33	11062	2869	14.97	10990	3022	17.71	10959								
7900	4448	2562	8.37	13109	2732	11.00	13139	2891	13.77	13217																	
9225	5194	2965	12.80	15311																							

MV7 (Medium Velocity Nozzle)

Nozzle Outlet Area: 1.33 ft²

FAN INLET CFM	NOZ-ZLE OV	1" SP			3" SP			5" SP			7" SP			9" SP			11" SP			13" SP			15" SP				
		RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW														
1600	1201	745	0.41	3354	1345	2.74	7602	1669	4.67	7652	1953	6.93	7829	2199	9.39	7630											
3700	2778	976	1.18	7485	1686	3.02	6574	1938	7.46	11758	2067	10.05	11908	2283	12.85	11867	2488	15.90	11891	2686	19.22	12085	2872	22.71	12262		
5800	4354	1336	3.01	11576	1597	5.12	11699	1838	7.46	11758	2304	15.16	15895	2480	18.41	16001	2651	21.83	16154	2817	25.45	16232	2977	29.17	16199		
10000	7508	2140	12.06	19940	2305	15.46	19953	2464	19.02	20129	2615	22.67	20226	2760	26.43	20178	2901	30.31	20117								
12100	9084	2557	20.45	24142	2695	24.49	24112	2830	28.70	24182	2960	32.97	24322														
14200	10661	2978	32.16	28342																							

MV5 (Medium Velocity Nozzle)

Nozzle Outlet Area: 1.33 ft²

FAN INLET CFM	NOZ-ZLE OV	1" SP			3" SP			5" SP			7" SP			9" SP			11" SP			13" SP			15" SP		
		RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW												
1700	1276	787	0.																						

HV (High Velocity Nozzle)Nozzle Outlet Area: 0.886 ft²

FAN INLET CFM	NOZ- ZLE OV	1" SP			3" SP			5" SP			7" SP			9" SP			11" SP			13" SP			15" SP			
		RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW													
1325	1495	765	0.39	3429																						
3100	3499	989	1.15	7702	1388	2.66	7919	1720	4.56	8050	1999	6.71	8019	2238	9.03	7783	2453	11.50	7552							
4875	5502	1343	3.02	11899	1629	5.02	12212	1894	7.29	12398	2136	9.81	12477	2358	12.55	12498	2568	15.56	12578	2765	18.76	12642	2949	22.13	12704	
6650	7506	1735	6.58	16230	1954	9.14	16332	2163	11.90	16582	2364	14.88	16816	2556	18.03	16917	2738	21.36	16972	2911	24.85	17006				
8425	9509	2143	12.43	20598	2322	15.63	20563	2491	18.89	20709	2656	22.33	20888	2819	26.00	21116	2976	29.79	21278							
10200	11512	2559	21.17	24971	2709	25.00	24876	2854	28.91	24921	2993	32.85	25045													
11975	13516	2980	33.43	29350																						

HV7 (High Velocity Nozzle)Nozzle Outlet Area: 0.886 ft²

FAN INLET CFM	NOZ- ZLE OV	1" SP			3" SP			5" SP			7" SP			9" SP			11" SP			13" SP			15" SP			
		RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW													
1550	1749	807	0.41	3961																						
2925	3301	1085	1.07	7290	1432	2.34	7397	1738	3.84	7609	2003	5.53	7390													
4300	4853	1428	2.43	10532	1705	4.15	10764	1943	5.99	10830	2162	7.96	10913	2376	10.14	11086	2573	12.43	11180	2757	14.84	11122	2933	17.40	10858	
5675	6405	1796	4.79	13817	2025	6.98	14072	2229	9.29	14206	2416	11.70	14255	2589	14.14	14301	2755	16.70	14354	2920	19.43	14451				
7050	7957	2178	8.48	17134	2370	11.14	17298	2548	13.91	17522	2713	16.77	17635	2867	19.70	17663	3015	22.71	17706							
8425	9509	2567	13.81	20458	2731	16.94	20566	2887	20.18	20741	3035	23.51	20930													
9800	11061	2960	21.10	23784																						

HV5 (High Velocity Nozzle)Nozzle Outlet Area: 0.886 ft²

FAN INLET CFM	NOZ- ZLE OV	1" SP			3" SP			5" SP			7" SP			9" SP			11" SP			13" SP			15" SP			
		RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW													
950	1072	758	0.25	2307																						
2125	2398	1019	0.68	5127	1389	1.67	5191	1695	2.85	5161	1968	4.21	5310	2221	5.76	5737										
3300	3725	1363	1.57	7909	1662	2.96	7952	1910	4.45	8062	2132	6.05	8066	2338	7.78	8013	2533	9.63	8008	2718	11.60	8021	2895	13.68	8095	
4475	5051	1741	3.17	10666	1990	5.00	10790	2203	6.88	10788	2396	8.85	10836	2573	10.88	10922	2740	13.03	10971							
5650	6377	2137	5.76	13432	2341	7.96	13549	2533	10.32	13634	2704	12.69	13636	2862	15.10	13620	3013	17.61	13671							
6825	7703	2541	9.56	16197	2713	12.16	16305	2879	14.91	16392																
8000	9029	2950	14.84	18964																						

XV (Extra High Velocity Nozzle)Nozzle Outlet Area: 0.444 ft²

FAN INLET CFM	NOZ- ZLE OV	1" SP			3" SP			5" SP			7" SP			9" SP			11" SP			13" SP			15" SP			
		RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW													
1150	2590	861	0.51	3691																						
2150	4842	1136	1.33	6663	1528	2.88	6853	1837	4.69	7079	2106	6.69	7271													
3150	7095	1463	3.04	9743	1799	5.11	9859	2066	7.32	9948	2302	9.74	10071	2518	12.37	10233	2718	15.15	10400	2906	18.02	10529				
4150	9347	1822	6.05	12810	2100	8.61	12814	2346	11.38	12970	2559	14.24	13052	2751	17.21	13108	2933	20.39	13210							
5150	11599	2196	10.75	15839	2430	13.81	15929	2646	17.08	15921	2846	20.52	16056	3028	24.05	16158										
6150	13851	2580	17.60	18878	2779	21.13	19028	2969	24.90	18995																
7150	16104	2968	26.94	21910																						

XV7 (Extra High Velocity Nozzle)Nozzle Outlet Area: 0.444 ft²

FAN INLET CFM	NOZ- ZLE OV	1" SP			3" SP			5" SP			7" SP			9" SP			11" SP			13" SP			15" SP			
		RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	
1125	2534	865	0.43	3712																						
2025	4561	1129	1.08	6407	1514	2.31	6646	1841	3.85	6755	2277</td															

PERFORMANCE DATA

245 BAIFE

Impeller Type: Airfoil

Max Class I RPM = 1708

Max Class III RPM = 2757

Windband Outlet Area: 7.20 ft²

Impeller Dia.: 24.50"

Max Class II RPM = 2162

Tip Speed FPM = 6.41 x RPM

LV (Low Velocity Nozzle)

Nozzle Outlet Area: 2.15 ft²

FAN INLET CFM	NOZ- ZLE OV	1" SP			3" SP			5" SP			7" SP			9" SP			11" SP			13" SP			15" SP			
		RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW													
2675	1242	690	0.61	4713	1239	3.69	9271	1509	6.08	9431	1756	8.88	9482													
5325	2472	931	1.64	9026	1478	6.59	13612	1689	9.63	13773	1882	12.86	13914	2066	16.31	14024	2242	20.03	14135	2411	24.02	14188	2574	28.27	14190	
7975	3702	1257	3.89	13512	1777	11.29	17894	1942	14.96	18111	2107	18.96	18248	2260	23.05	18366	2405	27.25	18469	2548	31.69	18562	2687	36.30	18660	
10625	4933	1607	7.90	18177	2107	18.39	22438	2241	22.71	22379	2373	27.27	22578	2507	32.15	22712	2637	37.16	22799							
13275	6163	1967	14.24	22772	2107	18.39	22438	2241	22.71	22379	2373	27.27	22578													
15925	7393	2333	23.49	27356	2453	28.48	27139	2566	33.48	26838	2677	38.66	26825													
18575	8623	2701	36.17	31916																						

LV7 (Low Velocity Nozzle)

Nozzle Outlet Area: 2.15 ft²

FAN INLET CFM	NOZ- ZLE OV	1" SP			3" SP			5" SP			7" SP			9" SP			11" SP			13" SP			15" SP				
		RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW														
2175	1010	712	0.48	3689	1278	2.83	7163	1533	4.71	7044	1776	6.83	7137														
4200	1950	968	1.20	7001	10489	1741	7.19	10622	1932	9.74	10610	2107	12.45	10511	2274	15.36	10452	2441	18.48	10567	2602	21.62	10551				
6225	2890	1279	2.58	10172	1529	4.81	10489	1741	7.19	10622	2168	13.87	14014	2323	17.08	14069	2470	20.44	14080	2609	23.92	14052	2741	27.52	13976		
8250	3830	1617	4.98	13419	1821	7.81	13656	2003	10.78	13872	2188	10.88	10585	2355	13.60	10567	2510	16.41	10559	2654	19.29	10570					
10275	4770	1968	8.71	16694	2134	12.10	16818	2295	15.72	17046	2442	19.41	17219	2579	23.19	17363	2710	27.09	17468								
12300	5710	2325	14.10	19971	2465	18.06	20045	2602	22.23	20188	2736	26.58	20384														
14325	6650	2686	21.47	23253																							

LV5 (Low Velocity Nozzle)

Nozzle Outlet Area: 2.15 ft²

FAN INLET CFM	NOZ- ZLE OV	1" SP			3" SP			5" SP			7" SP			9" SP			11" SP			13" SP			15" SP				
		RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW														
1550	720	710	0.36	2591	1288	2.21	5238	1550	3.72	5197	1774	5.38	4931														
3150	1462	956	0.87	5310	1222	3.33	9235	1516	5.68	9296	1774	8.41	9524	1998	11.42	9374											
4750	2205	1269	1.84	7920	1530	3.65	7959	1757	5.65	7896	1878	12.22	14465	2074	15.62	14417	2260	19.31	14445	2439	23.32	14632	2608	27.56	14848		
6350	2948	1609	3.55	10551	1823	5.79	10684	2012	8.25	10649	2095	18.46	19324	2254	22.39	19438	2409	26.54	19624	2559	30.90	19703	2705	35.46	19695		
7950	3691	1961	6.21	13195	2141	8.91	13268	2307	11.82	13396	2459	14.88	13376	2602	18.08	13288	2741	21.39	13249								
9550	4434	2321	10.08	15852	2475	13.24	15882	2620	16.60	15981	2756	20.09	16077														
11150	5176	2684	15.37	18500																							

MV7 (Medium Velocity Nozzle)

Nozzle Outlet Area: 1.62 ft²

FAN INLET CFM	NOZ- ZLE OV	1" SP			3" SP			5" SP			7" SP			9" SP			11" SP			13" SP			15" SP				
		RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW														
2050	1269	714	0.48	4162	1279	2.81	8018	1543	4.62	8126	1777	6.69	7884														
3975	2461	969	1.22	8054	1279	2.81	8018	1543	4.62	8126	1935	9.68	11901	2118	12.30	11991	2288	15.08	12037	2447	18.05	11913	2605	21.20	11750		
5900	3653	1283	2.69	11766	1532	4.88	11992	1743	7.20	11947	2173	13.97	15884	2327	17.11	15839	2473	20.37	15788	2615	23.75	15802	2753	27.22	15869		
7825	4845	1621	5.23	15536	1826	8.03	15780	2008	10.96	15901	2198	17.30	23570														
9750	6037	1972	9.22	19341	2142	12.58	19465	2301	16.15	19689	2448	19.79	19793	2585	23.47	19798	2716	27.28	19790								
11675	7229	2329	14.99	23149	2474	18.92	23217	2613	23.08	23379	2745	27.38	23570														
13600	8421	2691	22.91	26972																							

MV5 (Medium Velocity Nozzle)

Nozzle Outlet Area: 1.62 ft²

FAN INLET CFM	NOZ- ZLE OV	1" SP			3" SP			5" SP			7" SP			9" SP			11" SP			13" SP			15" SP		
RPM	BHP	OUT FLOW																							

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HV (High Velocity Nozzle)Nozzle Outlet Area: 1.07 ft²

FAN INLET CFM	NOZ- ZLE OV	1" SP			3" SP			5" SP			7" SP			9" SP			11" SP			13" SP			15" SP			
		RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW													
1600	1490	695	0.48	4172	1260	3.22	9584	1561	5.52	9705	1815	8.13	9699	2032	10.93	9410	2227	13.92	9111							
3750	3492	897	1.38	9318	1478	6.07	14780	1719	8.82	15006	1939	11.88	15101	2140	15.18	15097	2331	18.82	15193	2511	22.73	15323	2677	26.78	15339	
5900	5493	1218	3.65	14403	1772	11.03	19763	1962	14.37	20063	2145	17.99	20348	2320	21.81	20480	2485	25.83	20536	2643	30.09	20598				
8050	7495	1574	7.96	19655																						
10200	9497	1944	15.02	24944	2106	18.87	24893	2260	22.83	25074	2410	27.00	25290	2558	31.43	25563	2701	36.03	25763							
12350	11499	2321	25.57	30235	2458	30.23	30131	2589	34.93	30174	2715	39.68	30319													
14500	13501	2703	40.38	35539																						

HV7 (High Velocity Nozzle)Nozzle Outlet Area: 1.07 ft²

FAN INLET CFM	NOZ- ZLE OV	1" SP			3" SP			5" SP			7" SP			9" SP			11" SP			13" SP			15" SP		
		RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW												
1900	1769	735	0.50	4849	1304	2.86	9038	1581	4.70	9299	1821	6.75	9072	2161	12.38	13522	2340	15.17	13651	2506	18.09	13574	2666	21.21	13300
3575	3329	991	1.32	8916	1555	5.10	13147	1770	7.34	13222	1968	9.74	13327	2200	14.31	17376	2357	17.29	17438	2508	20.42	17518	2657	23.74	17635
5250	4888	1304	3.00	12857	1847	8.57	17164	2032	11.40	17336	2180	10.79	13188	2341	13.27	13299	2494	15.88	13361	2639	18.58	13335			
6925	6448	1640	5.90	16859																					
8600	8007	1989	10.45	20902	2162	13.69	21093	2323	17.06	21362	2472	20.54	21497	2612	24.12	21541	2746	27.80	21592						
10275	9567	2344	17.02	24951	2492	20.83	25079	2633	24.78	25288															
11950	11127	2702	25.98	28993																					

HV5 (High Velocity Nozzle)Nozzle Outlet Area: 1.07 ft²

FAN INLET CFM	NOZ- ZLE OV	1" SP			3" SP			5" SP			7" SP			9" SP			11" SP			13" SP			15" SP			
		RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW													
1175	1094	690	0.31	2839	1265	2.04	6358	1541	3.47	6300	1788	5.13	6461	2017	7.01	6954										
2600	2421	930	0.84	6271	1514	3.62	9698	1739	5.44	9834	1940	7.39	9846	2126	9.48	9772	2302	11.73	9749	2470	14.12	9769	2631	16.66	9869	
4025	3748	1244	1.93	9651	1514	3.62	13146	2006	8.41	13144	2180	10.79	13188	2341	13.27	13299	2494	15.88	13361	2639	18.58	13335				
5450	5074	1587	3.89	12987	1813	6.11	13146																			
6875	6401	1947	7.05	16343	2132	9.73	16487	2305	12.58	16583	2460	15.46	16584	2604	18.41	16573	2741	21.46	16633							
8300	7728	2314	11.69	19695	2470	14.85	19827	2621	18.20	19941																
9725	9055	2685	18.11	23046																						

XV (Extra High Velocity Nozzle)Nozzle Outlet Area: 0.539 ft²

FAN INLET CFM	NOZ- ZLE OV	1" SP			3" SP			5" SP			7" SP			9" SP			11" SP			13" SP			15" SP			
		RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW													
1400	2597	783	0.62	4494	1386	3.47	8283	1668	5.68	8577	1912	8.09	8801													
2600	4824	1030	1.61	8057	1629	6.13	11888	1872	8.80	11997	2088	11.75	12168	2284	14.92	12359	2466	18.28	12562	2637	21.76	12718				
3800	7050	1324	3.64	11758	15445	2124	13.65	15635			2317	17.08	15723	2493	20.70	15811	2658	24.53	15926							
5000	9276	1646	7.21	15437	1900	10.30	15445				2575	24.57	19338	2740	28.80	19451										
6200	11503	1982	12.79	19074	2195	16.46	19167	2392	20.40	19162																
7400	13729	2326	20.87	22711	2508	25.13	22890	2682	29.68	22849																
8600	15955	2675	31.92	26354																						

XV7 (Extra High Velocity Nozzle)Nozzle Outlet Area: 0.539 ft²

FAN INLET CFM	NOZ- ZLE OV	1" SP			3" SP			5" SP			7" SP			9" SP			11" SP			13" SP			15" SP		
		RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW									
1350	2505	783	0.51	4452	1374	2.79	8041	1671	4.66	8164	2069	9.37	11727	2278	12.03	11851	2467	14.93	11778	2646	18.00	11800			

PERFORMANCE DATA

270 BAIFE

Impeller Type: Airfoil **Max Class I RPM = 1558**
Impeller Dia.: 27.00" **Max Class II RPM = 1999**

Max Class III RPM = 2549
Tip Speed FPM = 7.07 x RPM

Windband Outlet Area: 8.73 ft²

LV (Low Velocity Nozzle)

Nozzle Outlet Area: 2.62 ft²

FAN INLET CFM	NOZ- ZLE OV	1" SP			3" SP			5" SP			7" SP			9" SP			11" SP			13" SP			15" SP			
		RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW													
2700	1032	616	0.58	4643	1120	3.89	9977	1379	6.55	10475	1617	9.72	11432	1821	13.07	12003										
6150	2351	840	1.71	10304	1366	7.40	16012	1548	10.66	15698	1722	14.22	15569	1892	18.07	15776	2056	22.24	16082	2219	26.88	16618	2375	31.79	17285	
9600	3670	1131	4.15	16084	1656	13.06	21921	1818	17.40	21806	1956	21.74	21602	2089	26.24	21372	2218	30.95	21202	2345	35.88	21168	2471	41.03	21293	
13050	4989	1457	8.63	21957	210	21.19	27634	2110	27.00	27734	2242	32.53	27658	2355	37.92	27503	2463	43.42	27334							
16500	6307	1800	15.95	27873	1947	21.19	27634	2110	27.00	27734	2242	32.53	27658	2355	37.92	27503	2463	43.42	27334							
19950	7626	2149	26.80	33767	2268	32.95	33506	2395	39.56	33409	2531	46.63	33513													
23400	8945	2502	41.94	39659																						

LV7 (Low Velocity Nozzle)

Nozzle Outlet Area: 2.62 ft²

FAN INLET CFM	NOZ- ZLE OV	1" SP			3" SP			5" SP			7" SP			9" SP			11" SP			13" SP			15" SP			
		RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW													
1800	688	639	0.47	3879	1115	2.71	6991	1410	5.18	7806	1713	8.70	10970	1947	12.17	12569	2138	15.54	13477							
4400	1682	815	1.02	7184	1347	4.65	11421	1536	7.10	11296	1719	9.97	11137	1903	13.33	11090	2090	17.24	10735	2275	21.67	12693	2471	27.02	14882	
7000	2676	1105	2.43	11411	1347																					
9600	3670	1443	5.20	15718	1615	7.80	15624	1799	10.99	15694	1943	14.16	15602	2078	17.56	15495	2214	21.33	15405	2347	25.38	15297	2480	29.78	15204	
12200	4664	1796	9.80	20032	1923	12.78	19885	2064	16.30	19858	2214	20.35	19929	2341	24.38	19907	2453	28.44	19843							
14800	5657	2155	16.72	24338	2258	20.18	24203	2365	23.97	24104	2481	28.24	24075													
17400	6651	2517	26.44	28635																						

LV5 (Low Velocity Nozzle)

Nozzle Outlet Area: 2.62 ft²

FAN INLET CFM	NOZ- ZLE OV	1" SP			3" SP			5" SP			7" SP			9" SP			11" SP			13" SP			15" SP			
		RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW													
1275	487	644	0.37	2581	1138	2.20	5064	1426	4.17	5146	1705	6.82	6865	1945	9.74	8120	2141	12.60	8716	2315	15.51	9075				
3350	1281	823	0.79	5428	1375	3.71	8744	1576	5.79	8501	1764	8.19	8284	1946	10.94	8147	2125	14.04	8179	2299	17.49	8261	2471	21.36	9008	
5425	2074	1104	1.80	8962	1375	3.71	8744	1576	5.79	8501	1996	11.54	11974	2139	14.44	11795	2279	17.60	11635	2414	20.99	11489	2546	24.61	11355	
9575	3660	1785	7.08	16107	1939	9.71	15825	2106	12.85	15665	2271	16.38	15592	2405	19.80	15451	2525	23.29	15319							
11650	4453	2142	12.05	19663	2268	15.10	19416	2396	18.47	19211	2534	22.32	19081													
13725	5247	2503	19.04	23209																						

MV7 (Medium Velocity Nozzle)

Nozzle Outlet Area: 1.96 ft²

FAN INLET CFM	NOZ- ZLE OV	1" SP			3" SP			5" SP			7" SP			9" SP			11" SP			13" SP			15" SP			
		RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW													
3525	1796	662	0.79	6486	12063	4.47	11891	1421	7.27	12593																
6525	3324	919	2.28	9608	1172	3.28	9527	1433	5.50	10118	1777	10.84	13772	1947	13.98	14200	2115	17.53	14666							
9525	4852	1215	5.31	18188	1418	8.31	17206	1594	11.53	17220	1996	15.52	17595	2127	18.78	17677	2257	22.30	17832	2388	26.15	18100	2519	30.33	18458	
12525	6381	1521	10.35	24086	1716	14.89	23543	1851	18.49	22633	1988	22.68	22607	2120	27.02	22689	2247	31.50	22837	2375	36.34	23054	2506	41.64	23403	
15525	7909	1841	18.22	29986	2011	24.05	29623	2150	29.24	29010	2257	33.60	28182	2367	38.52	27977	2477	43.82	28018							
18525	9437	2167	29.54	35866	2306	36.23	35468	2449	43.38	35239																
21525	10965	2497	45.00	41742																						

MV5 (Medium Velocity Nozzle)

Nozzle Outlet Area: 1.96 ft²

FAN INLET CFM	NOZ- ZLE OV	1" SP			3" SP			5" SP			7" SP			9" SP			11" SP			13"
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HV (High Velocity Nozzle)Nozzle Outlet Area: 1.31 ft²

FAN INLET CFM	NOZ- ZLE OV	1" SP			3" SP			5" SP			7" SP			9" SP			11" SP			13" SP			15" SP			
		RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW													
2375	1813	650	0.62	5344	1168	3.87	11348	1437	6.51	11009	1668	9.36	10963													
4925	3760	851	1.74	10491																						
7475	5706	1151	4.38	16250	1366	7.08	16086	1577	10.15	16738	1782	13.72	17253	1967	17.63	16983	2138	21.69	16730	2300	25.89	16654	2451	30.22	16619	
10025	7653	1474	9.24	22092	1642	12.66	21462	1800	16.30	21471	1957	20.21	21956	2116	24.51	22462	2273	29.20	22971	2419	34.13	23136				
12575	9599	1807	17.03	27917	1947	21.21	27278	2077	25.60	26873	2204	30.19	26832	2329	34.88	27141	2454	39.85	27541							
15125	11546	2147	28.57	33748	2266	33.52	33129	2379	38.65	32685	2466	43.93	32352													
17675	13492	2490	44.56	39560																						

HV7 (High Velocity Nozzle)Nozzle Outlet Area: 1.31 ft²

FAN INLET CFM	NOZ- ZLE OV	1" SP			3" SP			5" SP			7" SP			9" SP			11" SP			13" SP			15" SP			
		RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW													
2025	1546	655	0.49	4556	1175	2.91	9419	1438	5.02	9122	1662	7.34	9054													
4100	3130	864	1.24	8793																						
6175	4714	1165	2.99	13514	1377	5.00	13373	1589	7.42	13933	1789	10.25	14202	1970	13.35	13866	2138	16.59	13745	2294	19.93	13635	2441	23.46	13614	
8250	6298	1488	6.14	18325	1654	8.68	17729	1813	11.44	17816	1969	14.44	18189	2129	17.83	18633	2282	21.51	18950	2426	25.47	18949				
10325	7882	1822	11.19	23142	1961	14.27	22535	2090	17.53	22169	2216	20.94	22178	2341	24.52	22462	2467	28.40	22779							
12400	9466	2162	18.62	27952	2280	22.22	27356	2392	26.00	26930	2498	29.91	26629													
14475	11050	2504	28.85	32732																						

HV5 (High Velocity Nozzle)Nozzle Outlet Area: 1.31 ft²

FAN INLET CFM	NOZ- ZLE OV	1" SP			3" SP			5" SP			7" SP			9" SP			11" SP			13" SP			15" SP			
		RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW													
1525	1164	650	0.38	3249	1183	2.33	7144	1441	4.07	6918	1660	5.98	6845	1856	8.15	6935										
3250	2481	863	0.94	6654																						
4975	3798	1162	2.22	10356	1393	3.94	10280	1608	5.97	10668	1808	8.31	10932	1986	10.89	10758	2150	13.61	10616	2302	16.40	10533	2446	19.34	10513	
6700	5115	1485	4.54	14168	1671	6.73	13724	1840	11.64	14060	2001	14.49	14369	2161	17.56	14641	2455	20.79	14702							
8425	6431	1818	8.24	17966	1977	10.93	17504	2119	13.75	17239	2255	16.72	17260	2384	19.76	17447	2512	23.04	17676							
10150	7748	2158	13.70	21765	2296	16.90	21317	2422	20.21	21004	2538	23.60	20783													
11875	9065	2502	21.26	25557																						

XV (Extra High Velocity Nozzle)Nozzle Outlet Area: 0.653 ft²

FAN INLET CFM	NOZ- ZLE OV	1" SP			3" SP			5" SP			7" SP			9" SP			11" SP			13" SP			15" SP			
		RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW													
1625	2489	700	0.62	5020	1259	3.77	9725	1513	6.04	9986	1732	8.57	10264													
3175	4862	930	1.76	9791																						
4725	7236	1203	4.12	15053	1487	6.90	14423	1712	9.89	14387	1907	13.01	14507	2083	16.30	14663	2246	19.77	14857	2399	23.44	15073	2543	27.27	15252	
6275	9609	1502	8.28	20093	1741	11.92	19576	1947	15.61	19174	2126	19.50	19092	2288	23.53	19115	2437	27.63	19182							
7825	11983	1815	14.86	25029	2018	19.31	24837	2201	23.89	24352	2368	28.47	24002	2519	33.18	23839										
9375	14357	2136	24.45	29949	2310	29.66	2996	2473	35.13	29589																
10925	16730	2461	37.63	34855																						

XV7 (Extra High Velocity Nozzle)Nozzle Outlet Area: 0.653 ft²

FAN INLET CFM	NOZ- ZLE OV	1" SP			3" SP			5" SP			7" SP			9" SP			11" SP			13" SP			15" SP			
		RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW													
1100	1685	656	0.35	3352	1214	2.36	7203	1458	3.84	7322	1669	5.51	7507	1854	7.30	7636										
2400	3675	890	1.04																							

PERFORMANCE DATA

300 BAIFE

Impeller Type: Airfoil
Max Class I RPM = 1402
Impeller Dia.: 30.00" Max Class II RPM = 1799

Max Class III RPM = 2294
Tip Speed FPM = 7.85 x RPM

Windband Outlet Area: 10.77 ft²

LV (Low Velocity Nozzle)

Nozzle Outlet Area: 3.23 ft²

FAN INLET CFM	NOZ- ZLE OV	1" SP			3" SP			5" SP			7" SP			9" SP			11" SP			13" SP			15" SP			
		RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW													
3325	1029	554	0.71	5699	1007	4.78	12277	1241	8.08	12924	1455	11.98	14083	1639	16.13	14830										
7575	2345	755	2.11	12692	1007	9.08	19699	1392	13.12	19338	1549	17.51	19189	1702	22.25	19440	1850	27.42	19829	1997	33.14	20507	2137	39.17	21290	
11825	3661	1016	5.10	19808	1227						1759	26.77	26626	1879	32.33	26347	1994	38.07	26092	2109	44.17	26073	2222	50.49	26207	
16075	4977	1309	10.60	27053	1488	16.04	26995	1634	21.40	26858																
20325	6293	1616	19.55	34318	1749	26.02	34030	1896	33.18	34155	2015	39.99	34067	2116	46.59	33852	2214	53.40	33661							
24575	7608	1930	32.88	41594	2038	40.50	41287	2152	48.61	41152	2275	57.34	41293													
28825	8924	2247	51.45	48853																						

LV7 (Low Velocity Nozzle)

Nozzle Outlet Area: 3.23 ft²

FAN INLET CFM	NOZ- ZLE OV	1" SP			3" SP			5" SP			7" SP			9" SP			11" SP			13" SP			15" SP				
		RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW														
2225	689	575	0.58	4783																							
5425	1680	733	1.26	8859	1003	3.34	8610	1269	6.39	9637	1542	10.74	13554	1752	15.02	15505	1924	19.17	16629								
8625	2670	993	2.98	14062	1211	5.72	14072	1381	8.74	13906	1546	12.28	13707	1712	16.44	13648	1881	21.27	13252	2048	26.75	15716	2225	33.38	18428		
11825	3661	1296	6.38	19359	1451	9.58	19240	1617	13.52	19330	1747	17.44	19223	1889	21.64	19095	1991	26.27	18967	2111	31.28	18835	2231	36.71	18722		
15025	4652	1613	12.03	24675	1728	15.70	24502	1854	20.01	24443	1990	25.03	24548	2104	29.99	24514	2205	34.99	24436								
18225	5642	1934	20.47	29957	2027	24.73	29792	2124	29.41	29677	2229	34.69	29645														
21425	6633	2259	32.37	35251																							

LV5 (Low Velocity Nozzle)

Nozzle Outlet Area: 3.23 ft²

FAN INLET CFM	NOZ- ZLE OV	1" SP			3" SP			5" SP			7" SP			9" SP			11" SP			13" SP			15" SP				
		RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW														
1575	488	580	0.46	3204	1024	2.71	6246	1283	5.14	6292	1535	8.42	8497	1750	12.01	10007	1926	15.52	10724	2083	19.12	11180					
4125	1277	740	0.97	6689	1055	4.51	10751	1417	7.13	10464	1586	10.08	10183	1751	13.49	10044	1912	17.31	10070	2069	21.57	10184	2225	26.38	11229		
6675	2067	991	2.20	11024	1235	4.56	10751	1417	7.13	10464	1793	14.17	14720	1923	17.77	14516	2049	21.67	14315	2170	25.82	14114	2290	30.32	13974		
9225	2856	1288	4.62	15422	1475	7.47	15103	1654	10.83	14945																	
11775	3646	1601	8.65	19810	1740	11.88	19459	1891	15.76	19262	2039	20.08	19162	2160	24.31	18996	2268	28.60	18830								
14325	4435	1920	14.70	24170	2034	18.46	23866	2150	22.62	23617	2275	27.37	23459														
16875	5224	2243	23.21	28524																							

MV7 (Medium Velocity Nozzle)

Nozzle Outlet Area: 2.42 ft²

FAN INLET CFM	NOZ- ZLE OV	1" SP			3" SP			5" SP			7" SP			9" SP			11" SP			13" SP			15" SP				
		RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW														
4350	1795	595	0.97	7977																							
8050	3321	826	2.80	14860	1055	5.52	14686	1278	8.96	15496																	
11750	4847	1093	6.54	22440	1275	10.22	21208	1435	14.24	21271	1586	18.52	21544	1740	23.43	22063	1892	28.86	22782	2037	34.59	23430					
15450	6374	1368	12.75	29711	1544	18.36	29055	1665	22.79	27917	1788	27.94	28747	1907	33.30	27979	2022	38.86	28184	2137	44.82	28442	2255	51.36	28874		
19150	7900	1655	22.41	36971	1808	29.60	36519	1934	36.05	35786	2030	41.40	34755	2130	47.53	34530	2228	54.00	34550								
22850	9427	1949	36.39	44246	2074	44.64	43750	2202	53.41	43446																	
26550	10953	2246	55.47	51500																							

MV5 (Medium Velocity Nozzle)

Nozzle Outlet Area: 2.42 ft²

FAN INLET CFM	NOZ- ZLE OV	1" SP			3" SP			5" SP			7" SP			9" SP			11" SP
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HV (High Velocity Nozzle)Nozzle Outlet Area: 1.62 ft²

FAN INLET CFM	NOZ- ZLE OV	1" SP			3" SP			5" SP			7" SP			9" SP			11" SP			13" SP			15" SP		
		RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW												
2925	1808	585	0.77	6598	1051	4.78	14001	1293	8.03	13566	1501	11.54	13518												
6075	3755	766	2.15	12955	1229	8.73	19849	1420	12.55	20689	1603	16.91	21259	1770	21.75	20943	1925	26.80	20719	2070	31.96	20560	2206	37.30	20526
9225	5701	1035	5.40	20038	1477	15.61	26475	1620	20.13	26508	1761	24.93	27098	1904	30.24	27718	2045	36.01	28331	2177	42.13	28560			
12375	7648	1326	11.39	27259	1753	26.22	33695	1869	31.59	33169	1983	37.23	33111	2096	43.06	33505	2208	49.16	33984						
15525	9595	1627	21.05	34481	2039	41.36	40889	2141	47.72	40350	2237	54.21	39930												
18675	11542	1932	35.25	41656																					
21825	13489	2241	55.01	48838																					

HV7 (High Velocity Nozzle)Nozzle Outlet Area: 1.62 ft²

FAN INLET CFM	NOZ- ZLE OV	1" SP			3" SP			5" SP			7" SP			9" SP			11" SP			13" SP			15" SP		
		RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW												
2500	1545	589	0.60	5598	1057	3.59	11607	1293	6.18	11191	1496	9.06	11190												
5050	3121	776	1.52	10822	1238	6.16	16482	1429	9.13	17170	1609	12.62	17484	1772	16.45	17064	1923	20.43	16900	2064	24.56	16796	2196	28.90	16752
7600	4697	1045	3.65	16611	1485	10.64	21810	1628	14.03	21917	1770	17.76	22405	1914	21.93	22944	2052	26.47	23330	2181	31.32	23278			
10150	6273	1335	7.51	22540	1760	17.47	27718	1876	21.47	27261	1990	25.68	27288	2103	30.10	27645	2216	34.84	28016						
12700	7849	1634	13.68	28458	2146	31.81	33102	2242	36.63	32742															
15250	9425	1938	22.72	34359																					
17800	11001	2245	35.21	40246																					

HV5 (High Velocity Nozzle)Nozzle Outlet Area: 1.62 ft²

FAN INLET CFM	NOZ- ZLE OV	1" SP			3" SP			5" SP			7" SP			9" SP			11" SP			13" SP			15" SP			
		RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW													
1875	1159	585	0.47	4011	1064	2.87	8799	1296	5.01	8506	1494	7.38	8451	1670	10.05	8545										
4000	2472	775	1.15	8187	1252	4.85	12663	1446	7.34	13145	1626	10.24	13462	1786	13.41	13277	1934	16.76	13068	2071	20.21	12972	2200	23.81	12922	
6125	3786	1043	2.71	12738	1501	8.26	16895	1654	11.18	16985	1799	14.33	17323	1943	17.83	17699	2081	21.62	18037	2208	25.61	18104				
10375	6412	1633	10.11	22132	1776	13.42	21555	1904	16.90	21231	2026	20.54	21251	2143	24.31	21496	2258	28.33	21770							
12500	7726	1938	16.80	26807	2062	20.73	26247	2175	24.80	25851	2281	29.02	25605													
14625	9039	2247	26.08	31481																						

XV (Extra High Velocity Nozzle)Nozzle Outlet Area: 0.806 ft²

FAN INLET CFM	NOZ- ZLE OV	1" SP			3" SP			5" SP			7" SP			9" SP			11" SP			13" SP			15" SP		
		RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW												
2000	2481	630	0.77	6197	1134	4.67	12032	1362	7.46	12338	1559	10.59	12680												
3925	4870	838	2.18	12116	1340	8.56	17854	1542	12.24	17796	1717	16.09	17930	1876	20.18	18143	2023	24.49	18394	2160	29.00	18640	2290	33.76	18881
5850	7258	1085	5.12	18616	1571	14.84	24279	1756	19.41	23775	1916	24.19	23642	2062	29.20	23679	2196	34.27	23759						
7775	9646	1356	10.32	24901	1821	24.05	30785	1986	29.75	30204	2135	35.37	29740	2272	41.28	29566									
9700	12035	1640	18.57	31040	2086	37.01	37196	2232	43.77	36694															
11625	14423	1930	30.56	37134																					
13550	16611	2224	47.04	43221																					

XV7 (Extra High Velocity Nozzle)Nozzle Outlet Area: 0.806 ft²

FAN INLET CFM	NOZ- ZLE OV	1" SP			3" SP			5" SP			7" SP			9" SP			11" SP			13" SP			15" SP		
		RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW
1800	2233	621	0.60	5715	1120	3.70	11284	1355	6.06	11589	1559	8.75	11931												
3600	4467	821	1.67	11376	1304	5.39	13757	1502	7.84	16824	1701	12.89	16942	1862	16.28	17112	2014	19.97	17347	2157	23.88	17602	2291	27.97</	

PERFORMANCE DATA

330 BAIFE

Impeller Type: Airfoil **Max Class I RPM = 1275**
Impeller Dia.: 33.00" **Max Class II RPM = 1636**

Max Class III RPM = 2085
Tip Speed FPM = 8.64 x RPM

Windband Outlet Area: 13.04 ft²

LV (Low Velocity Nozzle)

Nozzle Outlet Area: 3.91 ft²

FAN INLET CFM	NOZ- ZLE OV	1" SP			3" SP			5" SP			7" SP			9" SP			11" SP			13" SP			15" SP			
		RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW													
4025	1030	504	0.86	6936	916	5.80	14885	1128	9.78	15619	1323	14.51	17075	1490	19.52	17944										
9175	2347	687	2.55	15381	1117	11.03	23895	1266	15.90	23425	1408	21.19	23210	1547	26.93	23506	1682	33.20	24009	1816	40.16	24875	1943	47.45	25796	
14325	3665	924	6.18	23980	1354	19.47	32712	1487	25.97	32556	1600	32.45	32255	1709	39.18	31919	1814	46.17	31636	1918	53.53	31588	2021	61.21	31768	
19475	4982	1191	12.86	32766	1354	49.47	32712	1487	59.05	49888	2070	69.57	50032													
24625	6300	1471	23.75	41584	1592	31.60	41246	1725	40.24	41378	1833	48.48	41265	1926	56.58	41052	2014	64.74	40782							
29775	7617	1757	39.94	50404	1854	49.10	49999	1959	59.05	49888	2070															
34925	8935	2045	62.45	59181																						

LV7 (Low Velocity Nozzle)

Nozzle Outlet Area: 3.91 ft²

FAN INLET CFM	NOZ- ZLE OV	1" SP			3" SP			5" SP			7" SP			9" SP			11" SP			13" SP			15" SP			
		RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW													
2675	684	523	0.70	5806	911	4.04	10371	1154	7.74	11711	1402	12.98	16411	1592	18.13	18725	1749	23.18	20117							
6550	1676	666	1.52	10708	1100	6.91	17000	1255	10.57	16811	1405	14.84	16564	1556	19.87	16485	1710	25.73	16036	1862	32.36	19038	2023	40.39	22316	
10425	2667	902	3.60	16997	1319	11.59	23277	1469	16.33	23359	1587	21.05	23224	1698	26.14	23068	1809	31.73	22911	1919	37.84	22787	2028	44.41	22642	
14300	3658	1178	7.71	23421	1319	11.59	23277	1469	16.33	23359	1750	21.57	23161	1751	26.31	22911	1919	37.84	22787							
18175	4650	1466	14.55	29849	1570	18.97	29625	1686	24.23	29590	1809	30.28	29698	1913	36.30	29669	2004	42.31	29552							
22050	5641	1758	24.77	36245	1843	29.93	36054	1931	35.60	35910	2026	41.96	35860													
25925	6632	2054	39.19	42662																						

LV5 (Low Velocity Nozzle)

Nozzle Outlet Area: 3.91 ft²

FAN INLET CFM	NOZ- ZLE OV	1" SP			3" SP			5" SP			7" SP			9" SP			11" SP			13" SP			15" SP			
		RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW													
1900	486	527	0.55	3861	931	3.28	7560	1166	6.22	7493	1395	10.18	10254	1591	14.54	12112	1751	18.80	12980	1894	23.16	13550				
5000	1279	673	1.17	8100	931	3.28	7560	1166	6.22	7493	1443	12.23	12364	1592	16.33	12161	1738	20.95	12170	1881	26.12	12341	2022	31.91	13494	
8100	2072	903	2.68	13382	1125	5.54	13062	1289	8.64	12685	1633	17.23	17885	1750	21.57	17616	1865	26.31	17392	1975	31.35	17158	2083	36.75	16957	
11200	2865	1174	5.63	18719	1343	9.08	18324	1506	13.16	18193																
14300	3658	1460	10.56	24053	1587	14.51	23652	1723	19.19	23400	1858	24.46	23291	1968	29.59	23087	2065	34.75	22862							
17400	4451	1752	17.98	29363	1855	22.54	28993	1960	27.58	28692	2073	33.34	28499													
20500	5244	2047	28.41	34654																						

MV7 (Medium Velocity Nozzle)

Nozzle Outlet Area: 2.93 ft²

FAN INLET CFM	NOZ- ZLE OV	1" SP			3" SP			5" SP			7" SP			9" SP			11" SP			13" SP			15" SP			
		RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW													
5250	1790	541	1.18	9657	958	6.65	17722	1162	10.84	18764																
9725	3316	750	3.38	17946	1158	12.34	25622	1303	17.16	25676	1441	22.36	26028	1581	28.29	26646	1720	34.90	27567	1852	41.84	28373				
14200	4841	993	7.90	27130	1158	22.04	35094	1513	27.54	33757	1625	33.78	33712	1733	40.24	33829	1837	46.92	34050	1942	54.15	34376	2050	62.12	34937	
18675	6367	1242	15.37	35895	1402	22.14	41514	1522	18.56	26338	1844	49.97	41998	1935	57.39	41732	2025	65.29	41790							
23150	7893	1504	27.09	44717	1643	35.77	44164	1757	43.53	43256																
27625	9419	1770	43.90	53478	1884	53.89	52886	2001	64.54	52539																
32100	10944	2040	66.94	62256																						
4450	1517	558	0.92	8074	974	4.90	14243	1172	8.20	15091	1454	16.20	20576	1593	20.89	21214	1730	26.17	21878							
7850	2676	769	2.36	14350	1020	9.40	20205	1316	12.14	20270	1634	23.23	26312	1741	28.09	26428	1847	33.33	26649	1954	39.08	27045	2061	45.31	27574	
11250	3836	1013	5.24	21548	1172	8.48	27188	1522	18.56	26338	1669	18.60	19699	1781	22.76	19803	1889	27.20	19950	1896	26.57	16769				
14650	4995	1256	9.75	28297	1409	1																				

HV (High Velocity Nozzle)

Nozzle Outlet Area: 3.56 ft²

HV7 (High Velocity Nozzle)

Nozzle Outlet Area: 3.56 ft²

HV5 (High Velocity Nozzle)

Nozzle Outlet Area: 3.56 ft²

XV (Extra High Velocity Nozzle)

Nozzle Outlet Area: 1.77 ft²

XV7 (Extra High Velocity Nozzle)

Nozzle Outlet Area: 1.77 ft²

XV5 (Extra High Velocity Nozzle)

Nozzle Outlet Area: 1.77 ft²

Class II = Light Blue section

Class III = Dark Blue section

Underlined figures indicate maximum static efficiency.

NOTES

- NOTES:**

 1. Performance certified is for installation Type A: Free inlet, free outlet.
 2. Power rating (BHP) does not include transmission losses.
 3. Performance ratings do not include the effects of appurtenances (accessories).
 4. Performance ratings do not include the effects of crosswinds.

PERFORMANCE DATA

542 BAIFE

Impeller Type: Airfoil **Max Class I RPM = 720**
Impeller Dia.: 54.25" **Max Class II RPM = 933**

Max Class III RPM = 1184

Windband Outlet Area: 35.23 ft²

LV (Low Velocity Nozzle)

Nozzle Outlet Area: 10.56 ft²

Tip Speed FPM = 14.20 x RPM

Tip Speed FPM = 14.20 x RPM

LV7 (Low Velocity Nozzle)

Nozzle Outlet Area: 10.56 ft²

LV5 (Low Velocity Nozzle)

Nozzle Outlet Area: 10.56 ft²

MV (Medium Velocity Nozzle)

Nozzle Outlet Area: 7.93 ft²

MV7 (Medium Velocity Nozzle)

Nozzle Outlet Area: 7.93 ft²

MV5 (Medium Velocity Nozzle)

Nozzle Outlet Area: 7.93 ft²

Class II = Light Blue section

Class III = Dark Blue section

Underlined figures indicate maximum static efficiency.

NOTES-

- NOTES:**

 1. Performance certified is for installation Type A: Free inlet, free outlet.
 2. Power rating (BHP) does not include transmission losses.
 3. Performance ratings do not include the effects of appurtenances (accessories).
 4. Performance ratings do not include the effects of crosswinds.

HV (High Velocity Nozzle)Nozzle Outlet Area: 5.29 ft²

FAN INLET CFM	NOZ- ZLE OV	1" SP			3" SP			5" SP			7" SP			9" SP			11" SP			13" SP			15" SP			
		RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW													
9550	1806	323	2.50	21357	412	6.45	40538	575	14.90	43703	711	25.26	42274	826	36.47	42325										
19025	3597	412	6.45	40538	547	15.40	61688	660	25.84	61782	772	38.11	64758	875	52.13	65495	969	67.43	64071	1056	83.18	63450	1137	99.49	63170	
28500	5389	694	31.55	83469	782	44.68	81070	866	58.77	81994	949	74.06	84027	1033	91.06	86245	1113	109.64	87696							
37975	7180	846	57.21	105196	919	72.97	102498	988	89.92	101232	1055	107.34	101786	1121	125.45	103362										
47450	8971	1000	94.52	126748	1063	113.24	124195	1123	132.98	122516	1179	152.94	121368													
56925	10763	1157	146.40	148427																						
66400	12554																									

HV7 (High Velocity Nozzle)Nozzle Outlet Area: 5.29 ft²

FAN INLET CFM	NOZ- ZLE OV	1" SP			3" SP			5" SP			7" SP			9" SP			11" SP			13" SP			15" SP			
		RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	
8175	1546	326	1.97	18397	418	4.60	33985	578	11.26	36163	711	19.59	35187	823	28.83	35063										
15825	2992	552	10.44	51090	664	18.29	51212	776	27.94	53624	877	39.11	53413	969	51.23	52353	1054	63.82	51983	1133	77.10	51892				
23475	4438	698	20.82	68915	786	30.58	66783	869	41.09	67667	954	53.18	69515	1037	66.51	71160	1115	81.19	71568							
31125	5885	849	37.17	86721	922	48.77	84197	990	61.17	83027	1058	74.41	83887	1124	88.26	85122										
38775	7331	1002	60.81	104390	1065	74.43	101968	1124	88.77	100268	1181	103.82	99479													
46425	8778	1157	93.32	122053																						
54075	10224																									

HV5 (High Velocity Nozzle)Nozzle Outlet Area: 5.29 ft²

FAN INLET CFM	NOZ- ZLE OV	1" SP			3" SP			5" SP			7" SP			9" SP			11" SP			13" SP			15" SP			
		RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW													
6125	1158	323	1.51	13005	581	8.99	27361	711	15.82	26484	821	23.42	26319													
12450	2354	416	3.44	25527	670	14.35	39118	783	22.36	40785	884	31.63	41066	974	41.67	40122	1057	52.19	39855	1134	63.16	39686				
18775	3550	549	7.69	38909	730	23.55	51280	880	32.54	52057	966	42.63	53302	1050	53.89	54649	1127	65.92	55153							
31425	5942	843	26.99	66858	927	37.15	65013	1001	47.74	64151	1073	59.04	64797	1142	70.96	65782										
37750	7137	996	44.21	80828	1069	56.15	78973	1134	68.43	77635																
44075	8333	1150	67.74	94682																						

XV (Extra High Velocity Nozzle)Nozzle Outlet Area: 2.64 ft²

FAN INLET CFM	NOZ- ZLE OV	1" SP			3" SP			5" SP			7" SP			9" SP			11" SP			13" SP			15" SP			
		RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW										
6550	2484	348	2.51	20193	618	14.42	37751	746	23.37	38896	856	33.40	39916													
12275	4655	452	6.53	37717	719	25.19	54774	833	36.69	54826	932	48.84	55508	1021	61.68	56187	1104	75.45	57175	1181	89.85	57968				
18000	6262	574	14.53	57012	833	42.08	73630	938	56.21	72313	1029	71.24	72242	1111												
23725	8897	709	28.33	76036	920	32.84	69846	925	44.10	68541	1016	56.22	68341	1099	68.97	68501	1176	82.16	68883							
29450	11168	850	49.74	94314	956	66.51	92935	1051	83.68	91042	1136	101.05	89851													
35175	13339	994	80.41	112372	1087	100.32	112337	1172	120.85	110368																
40900	15510	1142	122.79	130605																						

XV7 (Extra High Velocity Nozzle)Nozzle Outlet Area: 2.64 ft²

FAN INLET CFM	NOZ- ZLE OV	1" SP			3" SP			5" SP			7" SP			9" SP			11" SP			13" SP			15" SP			
		RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW													
5850	2218	343	1.96	18607	610	11.39	35226	743	19.03	36459	856	27.58	37462													
11225	4257	443	5.01	35431	708	19.66	51714	823	29.07	51727	924	39.22	52381	1015	50.03	52952	1101	61.85	53833	1181	74.32	54696				
16600	6295	566	11.24	53774																						

PERFORMANCE DATA

600 BAIFE

Impeller Type: Airfoil
Max Class I RPM = 651
Impeller Dia.: 60.00" Max Class II RPM = 844

Max Class III RPM = 1071
Tip Speed FPM = 15.71 x RPM

Windband Outlet Area: 43.10 ft²

LV (Low Velocity Nozzle)

Nozzle Outlet Area: 12.92 ft²

FAN INLET CFM	NOZ- ZLE OV	1" SP			3" SP			5" SP			7" SP			9" SP			11" SP			13" SP			15" SP				
		RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW														
13300	1029	277	2.85	22795	498	18.23	47274	619	31.36	50704	726	46.57	55157	817	62.53	56844											
28925	2239	367	7.76	48413	593	32.85	73971	679	48.33	72416	762	65.48	72652	842	84.15	74185	920	104.91	76457	995	127.28	79495	1065	150.63	82504		
44550	3448	486	17.91	74635	713	56.46	101079	786	76.43	100327	851	96.64	99083	914	118.01	98054	975	140.32	97532	1036	164.06	98179					
60175	4657	618	35.93	101152																							
75800	5866	758	64.92	127893	831	89.57	126983	906	115.88	127273	965	141.07	126734	1017	165.72	125674	1069	191.64	124798								
91425	7076	901	107.53	154564	960	136.38	153463	1023	167.16	153194																	
107050	8285	1046	166.68	181248																							

LV7 (Low Velocity Nozzle)

Nozzle Outlet Area: 12.92 ft²

FAN INLET CFM	NOZ- ZLE OV	1" SP			3" SP			5" SP			7" SP			9" SP			11" SP			13" SP			15" SP					
		RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW			
8875	687	287	2.29	18932	497	12.94	32751	638	25.53	40678	774	42.59	55130	873	58.36	61088												
20625	1596	356	4.63	33611	585	20.82	52694	675	32.75	52082	762	46.82	51144	852	63.89	52291	941	83.57	52633	1034	107.55	67935						
32375	2506	472	10.34	52651	695	33.86	71860	778	48.61	72022	844	63.46	71378	910	80.20	70916	974	98.36	70201	1039	118.69	69913						
44125	3415	610	21.44	72236																								
55875	4324	754	39.55	91717	816	53.45	90968	887	70.48	91017	956	89.43	91374	1012	107.85	91048	1063	126.63	90439									
67625	5234	901	66.54	111174	951	82.47	110432	1004	100.42	110004	1064	121.47	110172															
79375	6143	1049	104.08	130535																								

LV5 (Low Velocity Nozzle)

Nozzle Outlet Area: 12.92 ft²

FAN INLET CFM	NOZ- ZLE OV	1" SP			3" SP			5" SP			7" SP			9" SP			11" SP			13" SP			15" SP					
		RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW															
6275	486	290	1.82	12815	507	10.49	23637	642	20.37	25696	771	33.62	35095	874	47.13	39724	960	60.53	41869									
15675	1213	360	3.60	25326	598	16.72	41018	693	26.81	39033	781	38.48	37881	868	52.16	37744	952	67.55	37899	1035	85.17	41263						
25075	1941	473	7.73	41261	709	26.72	56288	797	39.19	55488	869	52.14	54666	937	66.17	53713	1003	81.56	52981	1067	98.15	52301						
34475	2668	608	15.69	57542																								
43875	3396	750	28.65	73639	826	41.11	72326	909	56.39	71741	981	72.26	71086	1041	88.08	70363												
53275	4123	897	48.20	89826	958	62.34	88502	1021	78.30	87478																		
62675	4851	1045	75.41	105867																								

MV7 (Medium Velocity Nozzle)

Nozzle Outlet Area: 9.69 ft²

FAN INLET CFM	NOZ- ZLE OV	1" SP			3" SP			5" SP			7" SP			9" SP			11" SP			13" SP			15" SP						
		RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW																
17375	1792	298	3.91	32060	519	20.78	56374	636	34.65	60595																			
30850	3182	401	10.24	56611	616	36.80	79998	699	52.09	80508	779	68.95	81870	861	88.65	84745	939	109.83	87603	1016	132.89	91611							
44325	4572	523	22.93	84575	735	63.26	107589	799	80.34	104119	864	100.06	104327	926	120.38	105003	988	142.46	106224	1051	166.69	107998							
57800	5962	646	43.07	110985																									
71275	7352	776	74.12	137556	857	100.76	135552	917	122.64	131383	970	144.03	128730	1023	167.72	128585													
84750	8742	908	118.04	163878	977	149.48	162107	1042	180.83	160413																			
98225	10132	1043	178.11	190405																									

MV5 (Medium Velocity Nozzle)

Nozzle Outlet Area: 9.69 ft²

FAN INLET CFM	NOZ- ZLE OV	1" SP			3" SP			5" SP			7" SP			9" SP			11" SP			13" SP			15" SP		
		RPM	BHP	OUT FLOW	RPM																				

HV (High Velocity Nozzle)Nozzle Outlet Area: 6.47 ft²

FAN INLET CFM	NOZ- ZLE OV	1" SP			3" SP			5" SP			7" SP			9" SP			11" SP			13" SP			15" SP				
		RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW														
11700	1808	292	3.06	26097	520	18.24	53510	643	30.94	51809	747	44.67	51869														
23300	3601	373	7.92	49688	597	31.66	75628	698	46.64	79207	792	63.99	80564	876	82.48	78292	955	101.87	77755	1028	121.75	77245					
34900	5394	495	18.88	75544	707	54.64	99153	783	71.90	100295	858	90.60	102769	935	111.79	105810	1006	134.03	107131								
46500	7187	628	38.69	102200																							
58100	8980	765	70.01	128692	832	89.61	125599	893	109.89	123760	954	131.36	124528	1014	153.68	126532											
69700	10773	905	115.93	155197	962	138.89	152092	1016	162.97	149994	1067	187.61	148672														
81300	12566	1047	179.53	181722																							

HV7 (High Velocity Nozzle)Nozzle Outlet Area: 6.47 ft²

FAN INLET CFM	NOZ- ZLE OV	1" SP			3" SP			5" SP			7" SP			9" SP			11" SP			13" SP			15" SP				
		RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW		
10000	1546	295	2.42	22608	523	13.80	44393	642	23.86	42626	744	35.25	42828														
19350	2991	378	5.63	41581	600	22.33	62577	702	34.23	65687	793	47.85	65356	876	62.62	63980	953	78.05	63591	1024	94.17	63269					
28700	4436	499	12.76	62477	710	37.30	81572	786	50.31	82819	862	64.92	84909	938	81.45	87143	1008	99.26	87491								
38050	5881	631	25.45	84280																							
47400	7326	767	45.35	105977	833	59.52	102882	895	74.79	101538	956	90.85	102507	1016	107.86	104067											
56750	8771	906	74.39	127695	963	91.06	124739	1016	108.49	122600	1067	126.70	121541														
66100	10216	1046	114.11	149278																							

HV5 (High Velocity Nozzle)Nozzle Outlet Area: 6.47 ft²

FAN INLET CFM	NOZ- ZLE OV	1" SP			3" SP			5" SP			7" SP			9" SP			11" SP			13" SP			15" SP				
		RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW														
7500	1159	292	1.85	15894	525	10.98	33379	643	19.37	32440	742	28.62	32083														
15250	2357	377	4.24	31342	606	17.57	47879	709	27.48	50083	799	38.66	50151	881	51.05	49180	956	63.92	48845	1025	77.22	48436					
23000	3555	497	9.44	47677	716	28.85	62837	796	39.86	63723	874	52.26	65292	950	66.07	66965	1019	80.64	67464								
30750	4753	628	18.67	64829																							
38500	5951	763	33.11	81880	839	45.57	79638	906	58.57	78599	971	72.41	79373	1033	86.91	80530											
46250	7148	901	54.15	98925	968	68.99	96790	1027	84.11	95193																	
54000	8346	1042	83.39	116085																							

XV (Extra High Velocity Nozzle)Nozzle Outlet Area: 3.22 ft²

FAN INLET CFM	NOZ- ZLE OV	1" SP			3" SP			5" SP			7" SP			9" SP			11" SP			13" SP			15" SP				
		RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW														
8000	2481	315	3.08	24789	559	17.67	46231	675	28.65	47715	774	40.87	48838														
15025	4659	409	8.01	46208	651	30.95	67201	754	45.05	67256	843	59.83	67977	924	75.69	68951	999	92.56	70163	1068	110.02	70963					
22050	6837	520	17.88	69944	754	51.67	90249	849	69.01	88652	931	87.36	88506	1005	106.14	88708											
29075	9016	642	34.82	93179																							
36100	11194	770	61.20	115617	866	81.84	114015	952	102.97	111749	1029	124.34	110323														
43125	13372	901	99.12	137834	984	123.18	137638	1061	148.44	135281																	
50150	15550	1034	150.85	159997																							

XV7 (Extra High Velocity Nozzle)Nozzle Outlet Area: 3.22 ft²

FAN INLET CFM	NOZ- ZLE OV	1" SP			3" SP			5" SP			7" SP			9" SP			11" SP			13" SP			15" SP				
		RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW		
7150	2217	310	2.40	22726	552	13.98	43201	672	23.30	44662	774	33.76	45836														
13750	4264	400	6.11	43220	641	24.15	63444	745	35.70	63477	836	48.10	64211	918	61.29	64850	996	75.82</td									

PERFORMANCE DATA

660 BAIFE

Impeller Type: Airfoil
Impeller Dia.: 66.00"

Max Class I RPM = 592

Max Class III RPM = 973

Tip Speed FPM = 17.28 x RPM

Windband Outlet Area: 52.14 ft²

LV (Low Velocity Nozzle)

Nozzle Outlet Area: 15.63 ft²

LV7 (Low Velocity Nozzle)

Nozzle Outlet Area: 15.63 ft²

LV5 (Low Velocity Nozzle)

Nozzle Outlet Area: 15.63 ft²

MV (Medium Velocity Nozzle)

Nozzle Outlet Area: 11.73 ft²

MV7 (Medium Velocity Nozzle)

Nozzle Outlet Area: 11.73 ft²

MV5 (Medium Velocity Nozzle)

Nozzle Outlet Area: 11.73 ft²

Class II = Light Blue section

Class III = Dark Blue section

Underlined figures indicate maximum static efficiency.

NOTES-

- NOTES:**

 1. Performance certified is for installation Type A: Free inlet, free outlet.
 2. Power rating (BHP) does not include transmission losses.
 3. Performance ratings do not include the effects of appurtenances (accessories).
 4. Performance ratings do not include the effects of crosswinds.

HV (High Velocity Nozzle)Nozzle Outlet Area: 7.83 ft²

FAN INLET CFM	NOZ- ZLE OV	1" SP			3" SP			5" SP			7" SP			9" SP			11" SP			13" SP			15" SP			
		RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW													
14150	1807	266	3.73	32005	473	22.10	64926	585	37.49	63121	679	53.99	62688													
28150	3596	339	9.58	60097	542	38.13	91297	634	56.25	95615	719	77.06	96780	797	99.96	95228	868	123.06	93912	935	147.40	93891				
42150	5384	450	22.85	91409	642	65.88	119767	711	86.66	121122	780	109.56	124350	849	134.68	127611	914	161.77	129324							
56150	7172	570	46.59	123425																						
70150	8960	694	84.18	155347	755	107.84	151598	811	132.54	149515	866	158.19	150321	921	185.36	152855										
84150	10748	821	139.40	187356	873	167.17	183618	922	196.13	181034	968	225.58	179320													
98150	12537	950	215.99	219433																						

HV7 (High Velocity Nozzle)Nozzle Outlet Area: 7.83 ft²

FAN INLET CFM	NOZ- ZLE OV	1" SP			3" SP			5" SP			7" SP			9" SP			11" SP			13" SP			15" SP			
		RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW													
12100	1546	268	2.92	27251	475	16.65	53473	584	28.92	51811	677	42.77	52229													
23400	2989	343	6.78	50169	546	27.09	75849	638	41.37	79420	721	57.91	79132	796	75.65	77202	866	94.30	76712	931	113.96	76615				
34700	4432	454	15.47	75680	645	45.04	98597	714	60.73	100084	783	78.34	102560	852	98.29	105190	916	119.94	105688							
46000	5876	573	30.69	101842																						
57300	7319	697	54.81	128175	757	71.94	124425	813	90.29	122713	869	109.88	124013	924	130.66	126014										
68600	8762	823	89.80	154380	874	109.64	150614	923	131.02	148200	970	153.31	147065													
79900	10206	950	137.68	180440																						

HV5 (High Velocity Nozzle)Nozzle Outlet Area: 7.83 ft²

FAN INLET CFM	NOZ- ZLE OV	1" SP			3" SP			5" SP			7" SP			9" SP			11" SP			13" SP			15" SP			
		RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	
9075	1159	266	2.25	19450	477	13.26	40288	584	23.37	39019	675	34.69	39030													
18450	2357	342	5.09	37794	551	21.27	57951	644	33.16	60465	727	46.90	60926	801	61.78	59543	869	77.31	59064	932	93.48	58689				
27825	3554	452	11.44	57722	651	34.93	76050	724	48.30	77172	794	78.88	863	79.76	80869	927	97.78	81835								
37200	4752	570	22.49	78288																						
46575	5949	694	40.13	99135	762	54.98	96231	824	70.96	95171	882	87.40	95911	939	105.14	97424										
55950	7147	819	65.50	119684	879	83.20	116941	933	101.56	115068																
65325	8344	947	100.81	140418																						

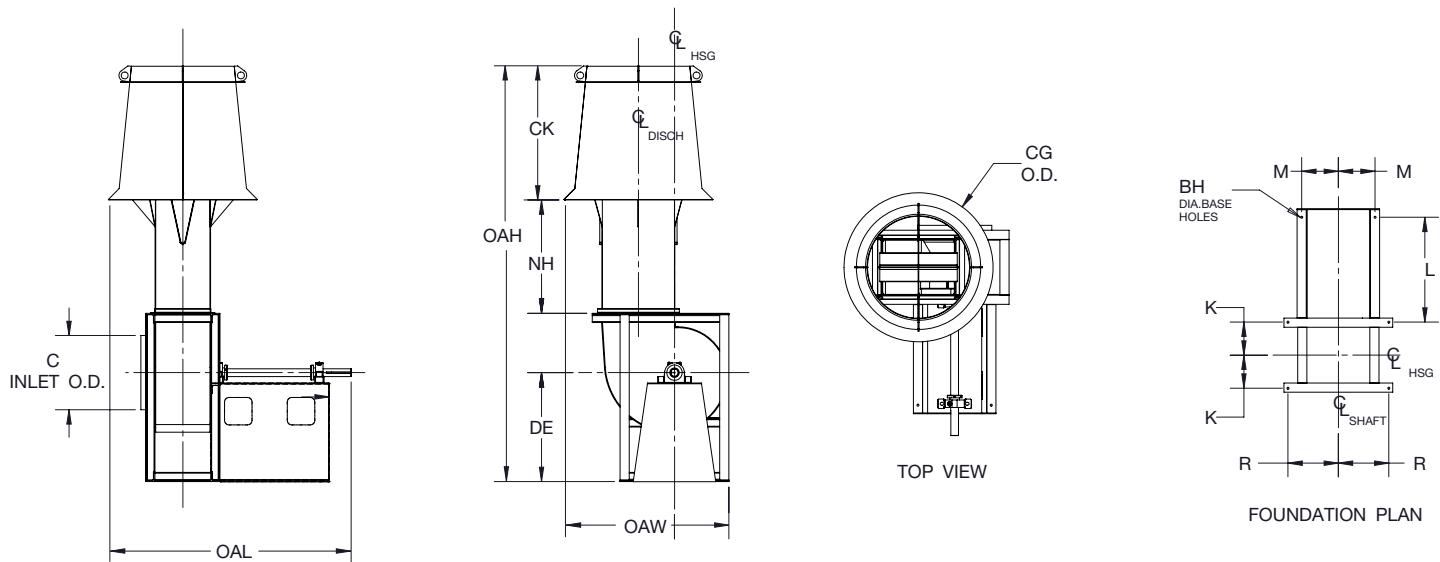
XV (Extra High Velocity Nozzle)Nozzle Outlet Area: 3.90 ft²

FAN INLET CFM	NOZ- ZLE OV	1" SP			3" SP			5" SP			7" SP			9" SP			11" SP			13" SP			15" SP			
		RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW													
9675	2479	286	3.71	29872	508	21.34	55882	613	34.54	57499	703	49.30	58794													
18150	4650	371	9.62	55666	591	37.28	81072	685	54.37	81240	766	72.25	82133	839	91.19	83082	907	111.48	84455	971	133.07	85903				
26625	6822	472	21.52	84435	684	62.09	108773	771	83.19	107028	845	105.13	106681	913	128.07	107141										
35100	8993	582	41.77	112354																						
43575	11164	698	73.40	139439	786	98.50	137606	864	123.89	134784	934	149.66	133060													
52050	13336	817	119.00	166311	893	148.23	166146	963	178.67	163258																
60525	15507	938	181.34	193155																						

XV7 (Extra High Velocity Nozzle)Nozzle Outlet Area: 3.90 ft²

FAN INLET CFM	NOZ- ZLE OV	1" SP			3" SP			5" SP			7" SP			9" SP			11" SP			13" SP			15" SP			
		RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	RPM	BHP	OUT FLOW	
8650	2216	282	2.91	27564	502	16.93	52333	611	28.20	54078	704	40.90	55629													
16625	4260	364	7.41	52402	591	21.28	62488	667	43.14	67623	760	58.19	77695	835	74.26	78641	906	91.88	80103	971	110.13	81068				
24600	6303</																									

Arrangement 1



NOTES:

1. 'CW' rotation is shown, 'CCW' rotation is similar but opposite.

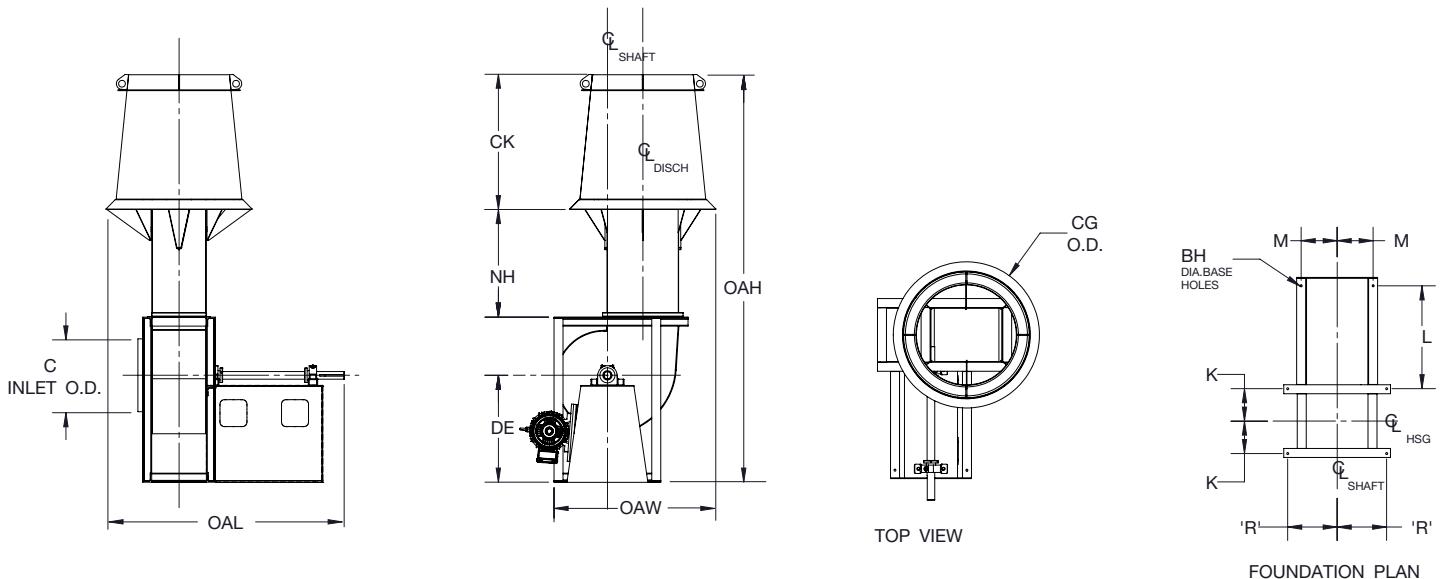
FAN SIZE	OAH	OAL								OAW	C	CG	CK	DE	NH							
		CLASS I & II			CLASS III																	
		LV, MV, HV, XV	LV7, MV7, HV7, XV7	LV5, MV5, HV5, XV5	LV, MV, HV, XV	LV7, MV7, HV7, XV7	LV5, MV5, HV5, XV5															
122	69.21	30.49	30.49	29.71	31.49	31.49	30.71	29.32	13.25	24.99	23.46	14.50	20.50									
135	75.95	32.80	32.27	31.93	33.80	33.27	32.92	31.87	14.56	27.55	25.91	15.75	22.54									
150	84.53	36.89	36.32	35.95	37.89	37.32	36.95	35.06	16.19	30.60	28.73	17.75	25.11									
165	92.36	39.17	38.51	38.07	40.04	39.42	38.95	38.15	17.75	33.66	31.60	19.00	27.63									
182	91.77	43.14	42.42	41.96	44.52	43.83	43.33	42.75	19.50	37.23	31.74	21.00	23.53									
200	100.15	46.46	45.68	45.15	47.84	47.09	46.52	46.28	21.38	40.50	34.78	22.75	25.81									
222	110.59	52.75	51.88	51.29	54.13	53.28	52.66	51.05	23.75	45.39	38.69	25.50	28.71									
245	121.72	57.92	56.95	56.33	59.79	58.83	58.20	56.65	26.06	49.98	42.61	28.00	31.61									
270	119.77	63.44	62.38	61.66	65.31	64.25	63.53	62.34	28.50	55.08	35.66	30.50	32.18									
300	127.67	78.19	77.00	76.22	75.81	74.62	73.84	72.21	31.63	67.20	39.81	28.50	35.55									
330	140.17	82.07	80.75	79.88	79.07	77.75	76.88	76.26	34.75	67.32	43.59	31.00	39.33									
365	154.21	87.04	85.61	84.64	85.54	84.11	83.14	84.36	38.50	74.46	48.21	33.50	43.51									
402	170.13	92.84	91.25	90.19	93.84	92.24	91.19	92.97	42.44	82.11	52.85	37.00	48.28									
445	187.18	100.98	99.23	98.05	103.11	101.36	100.17	102.74	46.88	90.78	58.77	40.00	53.04									
490	206.12	107.67	105.73	104.45	112.42	110.48	109.20	113.17	51.63	99.96	64.72	44.00	58.41									
542	228.38	120.28	118.12	116.72	120.90	118.74	117.34	125.24	57.13	110.67	71.65	49.00	64.67									
600	252.46	128.11	125.73	124.17	132.48	130.11	128.54	138.55	63.13	122.40	79.27	54.00	71.50									
660	277.29	140.29	137.70	135.95	144.54	141.95	140.20	152.13	69.38	134.64	87.16	59.00	78.69									

FAN SIZE	K			L		M		R	BH
	LV, MV, HV, XV	LV7, MV7, HV7, XV7	LV5, MV5, HV5, XV5	CL. I & II	CL. III	CL. I & II	CL. III		
122	6.12	6.12	5.34	9.63	7.50	6.75	6.50	9.50	0.44
135	6.65	6.12	5.77	10.13	8.00	7.38	7.13	10.13	0.44
150	7.21	6.65	6.27	11.63	9.50	8.25	8.00	11.00	0.44
165	7.84	7.18	6.74	12.13	9.50	8.75	8.75	11.79	0.44
182	9.02	8.30	7.84	12.63	10.00	9.63	9.63	13.13	0.44
200	9.71	8.93	8.40	13.63	11.00	10.63	10.63	14.13	0.56
222	10.55	9.68	9.09	15.88	13.50	11.75	11.50	15.25	0.56
245	11.93	10.96	10.34	16.88	14.50	12.88	12.63	16.88	0.56
270	12.90	11.84	11.12	18.88	16.50	14.13	13.88	18.13	0.56
300	14.09	12.90	12.12	26.13	18.50	15.88	15.63	20.13	0.56
330	15.28	13.97	13.09	28.75	20.50	17.38	17.13	21.63	0.56
365	16.69	15.25	14.28	28.75	22.00	18.88	18.63	23.63	0.56
402	18.16	16.56	15.50	29.50	24.00	20.88	20.38	25.38	0.81
445	20.34	18.59	17.41	30.63	26.50	22.88	22.38	27.88	0.81
490	22.06	20.13	18.84	31.00	28.50	25.38	24.88	30.38	0.81
542	24.19	22.03	20.63	36.13	29.50	27.63	27.13	33.13	0.81
600	26.41	24.03	22.47	35.88	32.50	30.63	30.13	36.13	0.81
660	28.84	26.25	24.50	39.00	35.50	33.13	32.63	39.13	0.81

BAIFE - BC1005074D
BCIFE - BC1005070D

TCF
TWIN CITY FAN

Arrangement 9



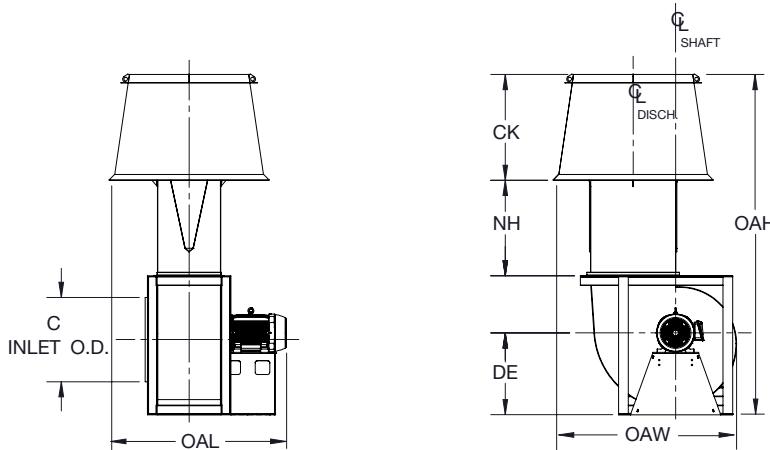
NOTES:

1. 'CCW' rotation is shown, 'CW' rotation is similar but opposite.

FAN SIZE	OAH		OAL						OAW	C	CG	CK	DE					
	CL. I & II	CL. III	CLASS I & II			CLASS III							CL. I & II	CL. III				
			LV, MV, HV, XV	LV7, MV7, HV7, XV7	LV5, MV5, HV5, XV5	LV, MV, HV, XV	LV7, MV7, HV7, XV7	LV5, MV5, HV5, XV5										
122	69.21	75.46	34.99	34.99	34.21	41.85	41.85	41.06	37.92	13.25	24.99	23.46	14.50	20.75				
135	75.95	83.70	39.30	38.77	38.42	49.79	49.26	48.92	41.14	14.56	27.55	25.91	15.75	23.50				
150	84.53	90.53	41.89	41.32	40.95	51.88	51.31	50.94	45.10	16.19	30.60	28.73	17.75	23.75				
165	92.36	97.11	46.54	45.88	45.45	54.03	53.38	52.94	48.98	17.75	33.66	31.60	19.00	23.75				
182	91.77	97.02	53.89	53.17	52.70	59.50	58.79	58.32	55.54	19.50	37.23	31.74	21.00	26.25				
200	100.15	106.90	56.21	55.43	54.90	64.58	63.80	63.26	59.99	21.38	40.50	34.78	22.75	29.50				
222	110.59	115.09	59.75	58.87	58.28	68.37	67.49	66.90	66.25	23.75	45.39	38.69	25.50	30.00				
245	121.72	123.97	63.42	62.45	61.83	71.54	70.58	69.95	73.73	26.06	49.98	42.61	28.00	30.25				
270	119.77	122.27	69.81	68.75	68.03	77.19	76.13	75.41	80.77	28.50	55.08	35.66	30.50	33.00				
300	127.67	132.67	78.19	77.00	76.22	84.94	83.75	82.97	92.21	31.63	67.20	39.81	28.50	33.50				
330	140.17	143.17	82.07	80.75	79.88	86.19	84.88	84.00	97.97	34.75	67.32	43.59	31.00	34.00				
365	154.21	158.21	87.04	85.61	84.64	99.17	97.73	96.76	107.86	38.50	74.46	48.21	33.50	37.50				
402	170.13	173.38	92.84	91.24	90.18	112.21	110.62	109.56	118.43	42.44	82.11	52.85	37.00	40.25				
445	187.18	188.18	100.98	99.23	98.05	118.23	116.48	115.30	131.45	46.88	90.78	58.77	40.00	41.00				
490	206.12	206.12	107.67	105.73	104.45	124.54	122.61	121.32	144.29	51.63	99.96	64.72	44.00	44.00				
542	228.38	228.38	120.27	118.12	116.71	133.15	130.99	129.59	159.09	57.13	110.67	71.65	49.00	49.00				
600	252.46	252.46	128.11	125.73	124.17	141.23	138.86	137.29	175.45	63.13	122.40	79.27	54.00	54.00				
660	277.29	277.29	140.29	137.70	135.95	150.79	148.20	146.45	192.13	69.38	134.64	87.16	59.00	59.00				

FAN SIZE	NH	K			L		M		R	BH	MAX MOTOR FRAME	
		LV, MV, HV, XV	LV7, MV7, HV7, XV7	LV5, MV5, HV5, XV5	CL. I & II	CL. III	CL. I & II	CL. III			CL. I & II	CL. III
122	20.50	6.12	6.12	5.34	14.13	17.37	6.75	6.52	9.50	0.44	145T	215T
135	22.54	6.65	6.12	5.77	16.63	22.75	7.38	7.14	10.13	0.44	184T	256T
150	25.11	7.21	6.65	6.27	16.63	22.75	8.25	8.02	11.00	0.44	184T	256T
165	27.63	7.84	7.18	6.74	19.50	22.75	8.75	8.77	11.79	0.44	215T	256T
182	23.53	9.02	8.30	7.84	23.38	24.50	9.63	9.64	13.13	0.44	254T	286T
200	25.81	9.71	8.93	8.40	23.38	26.00	10.63	10.64	14.13	0.56	254T	326T
222	28.71	10.55	9.68	9.09	22.88	26.50	11.75	11.51	15.25	0.56	256T	326T
245	31.61	11.93	10.96	10.34	22.38	26.00	12.88	12.64	16.88	0.56	256T	326T
270	32.18	12.90	11.84	11.12	25.25	27.13	14.13	13.89	18.13	0.56	284T	365T
300	35.55	14.09	12.90	12.12	26.13	27.63	15.88	15.64	20.13	0.56	286T	365T
330	39.33	15.28	13.97	13.09	28.75	27.63	17.38	17.14	21.63	0.56	324T	365T
365	43.51	16.69	15.25	14.28	28.75	34.38	18.88	18.64	23.63	0.56	324T	405T
402	48.28	18.16	16.56	15.50	29.50	41.13	20.88	20.39	25.38	0.81	326T	405T
445	53.04	20.34	18.59	17.41	30.63	40.63	22.88	22.39	27.88	0.81	364T	405T
490	58.41	22.06	20.13	18.84	31.00	40.63	25.38	24.89	30.38	0.81	364T	405T
542	64.67	24.19	22.03	20.63	36.13	41.25	27.63	27.14	33.13	0.81	404T	405T
600	71.50	26.41	24.03	22.47	35.88	41.25	30.63	30.14	36.13	0.81	404T	405T
660	78.69	28.84	26.25	24.50	39.00	42.25	33.13	32.64	39.13	0.81	405T	405T

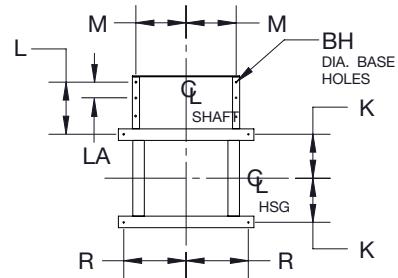
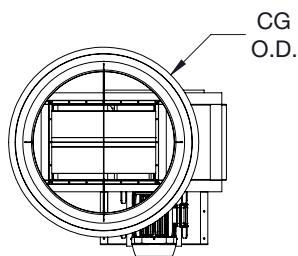
Arrangement 4



FAN SIZE	MOTOR FRAME	OAH	OAL			OAW	C	CK	DE	NH
			LV, MV, HV, XV	LV7, MV7, HV7, XV7	LV5, MV5, HV5, XV5					
122	145T	69.21	30.31	30.31	29.56	29.32	13.25	23.46	14.50	20.50
	145T 184T	75.95	33.41	33.41	32.53	31.87	14.56	25.91	15.75	22.54
150	145T 184T	84.53	35.55	34.86	34.49	35.06	16.19	28.73	17.75	25.11
	145T 184T 215T	92.36	41.83	41.21	40.77	38.15	17.75	31.60	19.00	27.63
182	145T 184T 215T 256T	91.77	49.00	48.31	47.81	42.75	19.50	31.74	21.00	23.53
	184T 215T 256T	100.15	51.13	50.38	49.81	46.28	21.38	34.78	22.75	25.81
	184T 215T 256T	110.59	55.08	54.20	53.64	51.36	23.75	38.69	25.50	28.71
	215T 256T	121.72	58.05	57.12	56.49	56.65	26.06	42.61	28.00	31.61
270	215T 256T 286T	119.77	63.79	62.73	62.04	62.34	28.50	35.66	30.50	32.18
	215T 256T 286T	127.67	70.79	69.60	71.48	72.21	31.63	39.81	28.50	35.55
	256T 286T 326T	140.17	73.54	72.22	71.35	76.26	34.75	43.59	31.00	39.33
	256T 286T 326T	154.21	78.48	77.04	76.11	84.36	38.50	48.21	33.50	43.51

BAIFE - BC1005075D
BCIFE - BC1005071D

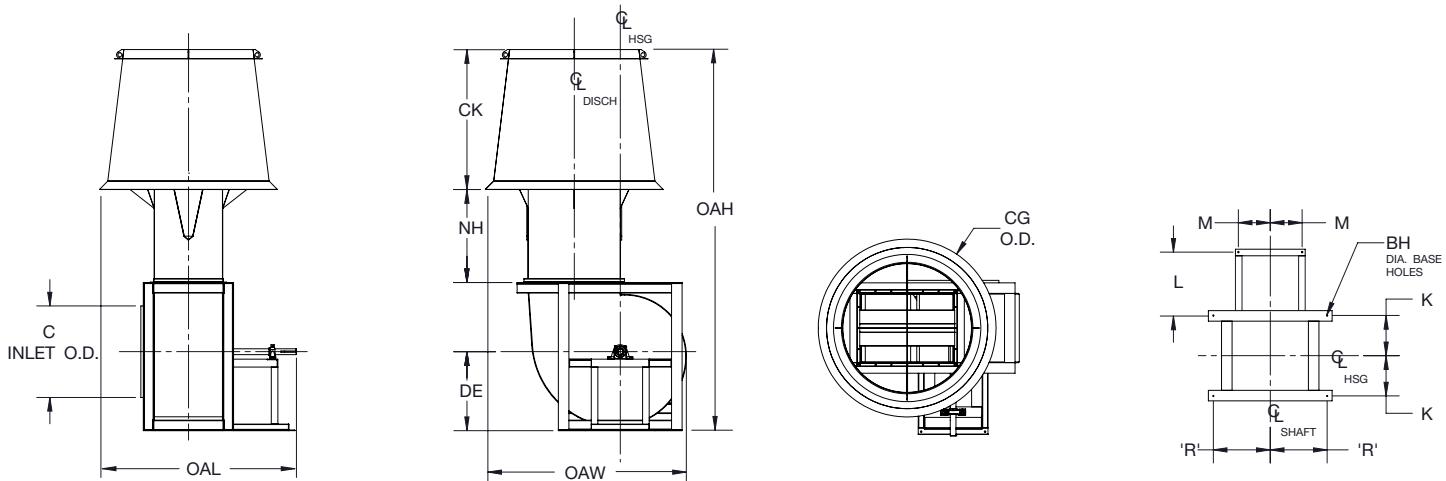
Arrangement 4



FAN SIZE	MOTOR FRAME	CG	K			L	LA	M	R	BH
			LV, MV, HV, XV	LV7, MV7, HV7, XV7	LV5, MV5, HV5, XV5					
122	145T	24.99	6.12	6.12	5.34	8.81	—	6.75	9.50	0.44
	145T	27.55	6.65	6.12	5.77	8.69	—	—	—	—
135	184T	—	—	—	—	10.44	—	7.38	10.13	0.44
	145T	30.60	7.21	6.65	6.27	8.63	—	—	—	—
150	184T	—	—	—	—	10.38	—	8.25	11.00	0.44
	145T	—	—	—	—	8.38	—	—	—	—
165	184T	—	—	—	—	10.13	—	8.75	11.79	0.44
	215T	33.66	7.84	7.18	6.74	13.00	—	—	—	—
	145T	—	—	—	—	8.75	—	—	—	—
182	184T	—	—	—	—	10.50	—	—	—	—
	215T	37.23	9.02	8.30	7.84	12.25	—	9.63	13.13	0.44
	256T	—	—	—	—	16.25	—	—	—	—
	145T	—	—	—	—	11.00	—	—	—	—
200	184T	—	—	—	—	12.75	—	—	—	—
	215T	40.50	9.71	8.93	8.40	16.06	—	10.63	14.13	0.56
	256T	—	—	—	—	10.31	—	—	—	—
222	184T	—	—	—	—	12.06	—	—	—	—
	215T	45.39	10.55	9.68	9.09	16.06	—	11.75	15.25	0.56
	256T	—	—	—	—	11.00	—	—	—	—
245	215T	—	—	—	—	12.75	—	—	—	—
	256T	49.98	11.93	10.96	10.34	16.75	—	12.88	16.88	0.56
	215T	—	—	—	—	12.06	—	—	—	—
270	256T	—	—	—	—	16.06	—	—	—	—
	286T	55.08	12.90	11.84	11.12	11.75	—	14.13	18.13	0.56
	215T	—	—	—	—	15.75	—	—	—	—
300	256T	—	—	—	—	17.50	9.25	—	—	—
	286T	67.20	14.09	12.90	12.12	11.50	—	15.88	20.13	0.56
	215T	—	—	—	—	15.50	—	—	—	—
330	256T	—	—	—	—	17.25	9.00	—	—	—
	286T	67.32	15.28	13.97	13.09	14.56	—	17.38	21.63	0.56
	326T	—	—	—	—	16.31	—	—	—	—
365	256T	—	—	—	—	18.06	9.41	—	—	—
	286T	74.46	16.69	15.25	14.28	16.31	—	18.88	23.63	0.56
	326T	—	—	—	—	18.06	9.41	—	—	—

BAIFE - BC1005075D
BCIFE - BC1005071D

Arrangement 10



NOTES:

1. 'CW' rotation is shown, 'CCW' rotation is similar but opposite.

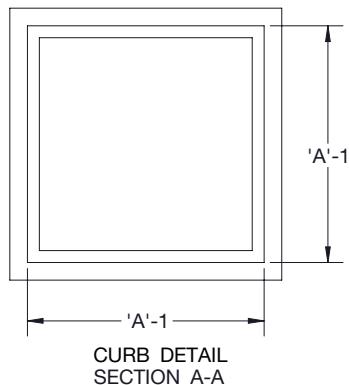
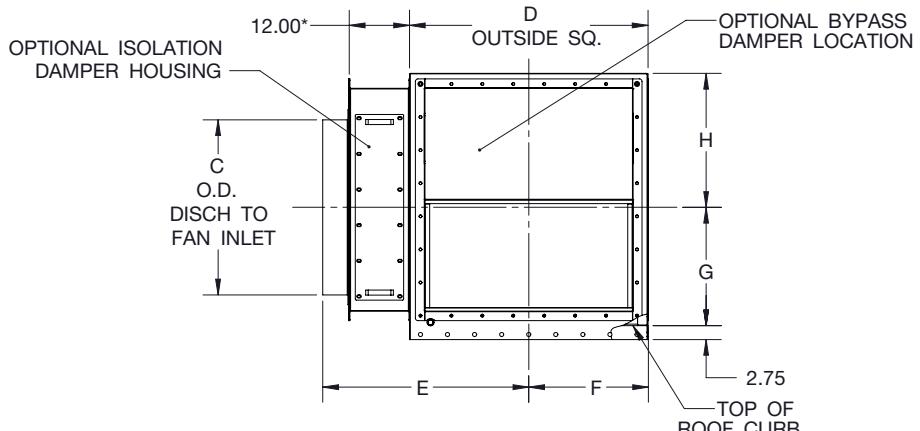
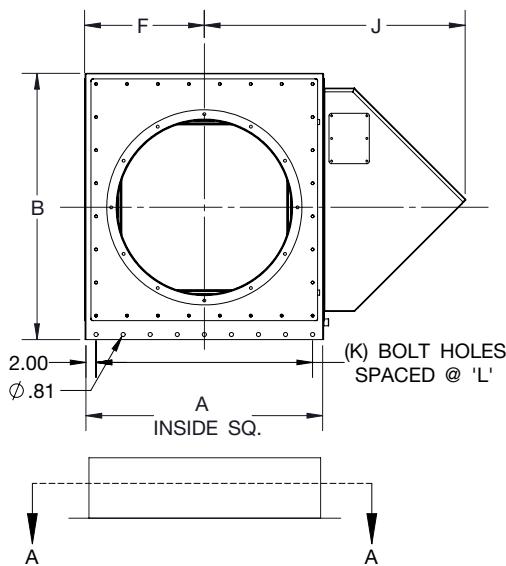
FAN SIZE	OAH	OAL			OAW	C	CG	CK	DE	NH	K							
		CLASS I & II		CL. I & II							LV, MV, HV, XV	LV7, MV7, HV7, XV7	LV5, MV5, HV5, XV5					
	CL. I & II	LV, MV, HV, XV	LV7, MV7, HV7, XV7	LV5, MV5, HV5, XV5														
122	72.34	39.10	39.10	38.32	29.31	13.25	24.99	23.46	17.63	20.50	6.12	6.12	5.34					
135	79.32	43.29	42.76	42.42	31.87	14.56	27.55	25.91	19.13	22.54	6.65	6.12	5.77					
150	86.16	45.38	44.82	44.44	35.05	16.19	30.60	28.73	19.38	25.11	7.21	6.65	6.27					
165	92.73	47.53	46.88	46.44	38.15	17.75	33.66	31.60	19.38	27.63	7.84	7.18	6.74					
182	92.65	55.38	54.66	54.19	42.74	19.50	37.23	31.74	21.88	23.53	9.02	8.30	7.84					
200	100.15	57.70	56.92	56.39	46.28	21.38	40.50	34.78	22.75	25.81	9.71	8.93	8.40					
222	110.59	60.99	60.12	59.52	51.35	23.75	45.39	38.69	25.50	28.71	10.55	9.68	9.09					
245	121.72	64.16	63.19	62.57	56.65	26.06	49.98	42.61	28.00	31.61	11.93	10.96	10.34					
270	119.77	70.52	69.46	68.74	62.34	28.50	55.08	35.66	30.50	32.18	12.90	11.84	11.12					
300	126.67	70.00	68.81	68.03	72.22	31.63	67.20	39.81	27.50	35.55	14.09	12.90	12.12					
330	139.17	72.88	71.57	70.69	76.25	34.75	67.32	43.59	30.00	39.33	15.28	13.97	13.09					
365	154.21	79.04	77.61	76.64	84.36	38.50	74.46	48.21	33.50	43.51	16.69	15.25	14.28					
402	170.13	86.34	84.74	83.68	92.96	42.44	82.11	52.85	37.00	48.28	18.16	16.56	15.50					
445	187.18	92.61	90.86	89.67	102.73	46.88	90.78	58.77	40.00	53.04	20.34	18.59	17.41					
490	206.12	98.92	96.98	95.70	113.17	51.63	99.96	64.72	44.00	58.41	22.06	20.13	18.84					
542	228.38	112.40	110.24	108.84	125.24	57.13	110.67	71.65	49.00	64.67	24.19	22.03	20.63					
600	252.46	120.48	118.11	116.54	138.54	63.13	122.40	79.27	54.00	71.50	26.41	24.03	22.47					

FAN SIZE	L	M	R	BH	MAX MOTOR FRAME
122	19.11	7.31	9.50	0.44	184T
135	20.86	8.06	10.13	0.44	215T
150	20.86	8.81	11.00	0.44	215T
165	20.73	9.25	11.79	0.44	215T
182	24.98	10.88	13.13	0.44	256T
200	24.98	10.88	14.13	0.56	256T
222	24.73	11.13	15.25	0.56	256T
245	24.23	11.63	16.88	0.56	256T
270	26.45	12.13	18.13	0.56	286T
300	23.06	12.13	20.13	0.56	286T
330	24.06	12.13	21.63	0.56	326T
365	25.25	12.13	23.63	0.56	326T
402	29.50	13.63	25.38	0.81	286T
445	29.00	13.63	27.88	0.81	286T
490	29.00	13.63	30.38	0.81	326T
542	35.50	16.13	33.13	0.81	365T
600	35.50	16.13	36.13	0.81	365T

BAIFE - BC1005077D
BCIFE - BC1005073D

TCF
TWIN CITY FAN

Mixing Box



NOTES:

1. Isolation damper mount is 12.00" wide. Without damper subtract 12.00" from 'E'.

FAN SIZE	A	B	C	D	E	F	G	H	J	K	L
122	28.00	34.35	13.25	28.21	26.27	14.11	11.50	20.10	33.17	5.00	6.00
135	28.00	34.35	14.56	28.21	26.27	14.11	13.50	18.10	33.17	5.00	6.00
150	28.00	34.35	16.19	28.21	26.27	14.11	14.50	17.10	33.17	5.00	6.00
165	32.00	37.85	17.75	32.21	28.27	16.11	15.00	20.10	36.92	6.00	5.60
182	32.00	37.85	19.50	32.21	28.27	16.11	16.00	19.10	36.92	6.00	5.60
200	36.00	41.85	21.38	36.21	30.27	18.11	17.00	22.10	40.92	7.00	5.33
222	36.00	41.85	23.75	36.21	30.27	18.11	18.00	21.10	40.92	7.00	5.33
245	41.00	46.85	26.06	41.21	32.81	20.61	19.50	24.60	45.92	8.00	5.29
270	41.00	46.85	28.50	41.21	32.81	20.61	20.50	23.60	45.92	8.00	5.29
300	47.00	52.85	31.63	47.21	35.81	23.61	22.00	28.10	51.92	9.00	5.38
330	47.00	52.85	34.75	47.21	35.81	23.61	23.50	26.60	51.92	9.00	5.38
365	55.00	60.88	38.50	55.27	39.81	27.64	25.50	32.63	59.92	11.00	5.10
402	55.00	60.88	42.44	55.27	39.81	27.64	27.50	30.63	59.92	11.00	5.10
445	59.00	64.88	46.88	59.27	41.81	29.64	29.50	32.63	63.92	12.00	5.00
490	64.00	69.88	51.63	64.27	44.31	32.14	32.00	35.13	68.92	13.00	5.00
542	70.00	75.93	57.13	70.36	47.31	35.18	35.00	38.18	74.92	14.00	5.08
600	76.00	81.93	63.13	76.36	50.31	38.18	38.00	41.18	80.92	15.00	5.14
660	82.00	87.93	69.38	82.36	53.31	41.18	41.00	44.18	86.92	16.00	5.20

BC1005069D

TYPICAL SPECIFICATIONS



Model

BAIFE

Model BAIFE Induced Flow Exhaust Fans, where indicated on drawings and schedules, shall be of the nonoverloading design and shall be of the size and capacity as indicated in the fan schedule. Induced flow exhaust fans shall be as manufactured by Twin City Fan, Minneapolis, Minnesota.

PERFORMANCE — Performance ratings shall conform to AMCA Standard 211 (air performance) and 311 (sound performance). Fans shall be tested in accordance with ANSI/AMCA Standard 210 (air performance), 300 (sound performance) and 260 (induced flow fans) in an AMCA accredited laboratory. Fans shall be licensed to bear the AMCA certified ratings seal for induced flow sound and air. Sound certification shall apply to both inlet and outlet sound power levels.

Fans shall be designed for maximum efficiency. Fans shall have a sharply rising pressure characteristic extending through the operating range and continuing to rise well beyond the efficiency peak to assure quiet and stable operation under all conditions. Horsepower characteristics shall be truly self-limiting and shall reach a peak in the normal selection area.

HOUSING — Housings are to be of heavy-gauge, continuously welded construction. Housings with lock seams or partially welded construction are not acceptable. Housings shall be suitably braced to prevent vibration or pulsation. Fan housings shall have tapered spun, aerodynamically designed inlet cones or shrouds providing stable flow and high rigidity. Model BAIFE shall include outlet nozzle, windband, access door and drain with plug.

IMPELLER — Fan impellers shall be die-formed airfoil blade type, continuously welded to the rim and back plate, designed for maximum efficiency and quiet operation. Partial welding will not be acceptable on airfoil blades. Smaller sizes may use extruded aluminum blades. All BAIFE impellers shall be statically and dynamically balanced. The complete fan assembly shall be test balanced at the operating speed prior to shipment.

SHAFT — Shafts shall be AISI 1045 hot rolled steel, accurately turned, ground, polished and ring gauged for accuracy. Shafts shall be sized for the first critical speed of at least 1.43 times the maximum speed.

BEARINGS — Bearings shall be heavy-duty, grease lubricated, anti-friction ball or roller, self-aligning, pillow block type and selected for a minimum average life (AFBMA L-10) of 200,000 hours at the maximum fan RPM.

DRIVE — Motor sheaves shall be cast iron, variable pitch on applications 10 HP and smaller, and fixed pitch on 15 HP and larger. Drives shall be selected to provide a minimum 2.0 service factor.

NOZZLE AND WINDBAND — A nozzle and windband combination shall be provided to efficiently induce ambient airflow from outside the fan housing and increase discharge velocities to be a recommended minimum of 3,000 FPM without significantly affecting BHP requirements. The windband shall provide a minimum discharge height of between 84" and 120" from roof surface.

OPTIONAL ACCESSORIES — Where required the fans shall be provided with:

- AMCA "A", "B" or "C" spark resistant construction
- Modular mixing plenum box
- Bypass damper with actuator
- Isolation damper with actuator
- Disconnect switches
- Roof curb
- Vortex breaker
- Special coatings (Epoxy, Air-Dry Phenolic, Synthetic Resin) on airstream parts or entire unit
- Special materials of construction

FACTORY RUN TEST — All fans prior to shipment shall be completely assembled and test run as a unit at operating speed or maximum RPM allowed for the particular construction type. Each impeller shall be statically and dynamically balanced in accordance with ANSI/AMCA 204-96 "Balance Quality and Vibration Levels for Fans" to Fan Application Category BV-3, Balance Quality Grade G6.3. Balance readings shall be taken by electronic type equipment in the axial, vertical and horizontal directions on each of the bearings. Records shall be maintained and a written copy shall be available upon request.

SUBMITTALS — Submittals for approval of equipment shall include copies of outline drawings, AMCA Certified Ratings and percentage pressure-volume performance curves showing point of operation.

GUARANTEE — The manufacturer shall guarantee the workmanship and materials for its BAIFE Induced Flow Exhaust Fans for at least three (3) years from shipment.



Model BCIFE

Model BCIFE Induced Flow Exhaust Fans, where indicated on drawings and schedules, shall be of the nonoverloading design and shall be of the size and capacity as indicated in the fan schedule. Induced flow exhaust fans shall be as manufactured by Twin City Fan, Minneapolis, Minnesota.

PERFORMANCE — Fans shall be tested in accordance with ANSI/AMCA Standard 210 (air performance) and 300 (sound performance) in an AMCA accredited laboratory.

Fans shall have a sharply rising pressure characteristic extending through the operating range and continuing to rise beyond the peak efficiency to ensure quiet and stable operation. Fans shall have a non-overloading design with self-limiting horsepower characteristics and shall reach a peak in the normal selection area. All fans shall be capable of operating over the minimum pressure class limits as specified in AMCA Standard 99.

HOUSING — Housings are to be of heavy-gauge, continuously welded construction. Housings with lock seams or partially welded construction are not acceptable. Housings shall be suitably braced to prevent vibration or pulsation. Fan housings shall have tapered spun, aerodynamically designed inlet cones or shrouds providing stable flow and high rigidity. Model BCIFE shall include outlet nozzle, windband, access door and drain with plug.

IMPELLER — Fan impellers shall be single thickness plate type designed for maximum efficiency and quiet operation. Partial welding will not be acceptable on backward inclined blades. All BCIFE impellers shall be statically and dynamically balanced. The complete fan assembly shall be test balanced at the operating speed prior to shipment.

SHAFT — Shafts shall be AISI 1045 hot rolled steel, accurately turned, ground, polished and ring gauged for accuracy. Shafts shall be sized for the first critical speed of at least 1.43 times the maximum speed.

BEARINGS — Bearings shall be heavy-duty, grease lubricated, anti-friction ball or roller, self-aligning, pillow block type and selected for a minimum average life (AFBMA L-10) of 200,000 hours at the maximum fan RPM.

DRIVE — Motor sheaves shall be cast iron, variable pitch on applications 10 HP and smaller, and fixed pitch on 15 HP and larger. Drives shall be selected to provide a minimum 2.0 service factor.

NOZZLE AND WINDBAND — A nozzle and windband combination shall be provided to efficiently induce ambient airflow from outside the fan housing and increase discharge velocities to be a recommended minimum of 3,000 FPM without significantly affecting BHP requirements. The windband shall provide a minimum discharge height of between 84" and 120" from roof surface.

OPTIONAL ACCESSORIES — Where required the fans shall be provided with:

- AMCA "A", "B" or "C" spark resistant construction
- Modular mixing plenum box
- Bypass damper with actuator
- Isolation damper with actuator
- Disconnect switches
- Roof curb
- Vortex breaker
- Special coatings (Epoxy, Air-Dry Phenolic, Synthetic Resin) on airstream parts or entire unit
- Special materials of construction

FACTORY RUN TEST — All fans prior to shipment shall be completely assembled and test run as a unit at operating speed or maximum RPM allowed for the particular construction type. Each impeller shall be statically and dynamically balanced in accordance with ANSI/AMCA 204-96 "Balance Quality and Vibration Levels for Fans" to Fan Application Category BV-3, Balance Quality Grade G6.3. Balance readings shall be taken by electronic type equipment in the axial, vertical and horizontal directions on each of the bearings. Records shall be maintained and a written copy shall be available upon request.

SUBMITTALS — Submittals for approval of equipment shall include copies of outline drawings, AMCA Certified Ratings and percentage pressure-volume performance curves showing point of operation.

GUARANTEE — The manufacturer shall guarantee the workmanship and materials for its BCIFE Induced Flow Exhaust Fans for at least three (3) years from shipment.

INDUSTRIAL PROCESS AND COMMERCIAL VENTILATION SYSTEMS

CENTRIFUGAL FANS | UTILITY SETS | PLENUM & PLUG FANS | INLINE CENTRIFUGAL FANS
MIXED FLOW FANS | TUBEAXIAL & VANEAXIAL FANS | PROPELLER WALL FANS | PROPELLER ROOF VENTILATORS
CENTRIFUGAL ROOF & WALL EXHAUSTERS | CEILING VENTILATORS | GRAVITY VENTILATORS | DUCT BLOWERS
RADIAL BLADED FANS | RADIAL TIP FANS | HIGH EFFICIENCY INDUSTRIAL FANS | PRESSURE BLOWERS
LABORATORY EXHAUST FANS | FILTERED SUPPLY FANS | MANCOOLERS | FIBERGLASS FANS | CUSTOM FANS



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