

Model AMX

MIXED FLOW FANS

Model AMX (Standard)

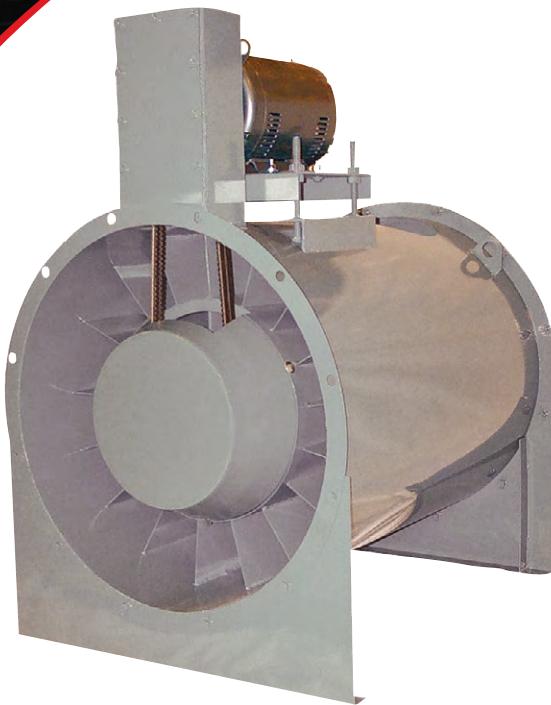
Model AMXR (Restaurant)

Model AMXSH (Smoke & Heat)

Mixed Flow Fans

Models

AMX | AMXR | AMXSH



AMX Mixed Flow Fan,
Outlet View

Models AMX is available with the UL/cUL 705 listing for electrical, File No. E158680.

Model AMXR is UL/cUL 762 listed for the exhaust of grease-laden air as standard, File No. MH-25478.

Model AMXSH is UL/cUL listed for Smoke Control Systems as standard, File No. MH-29313, 500°F for 4 hours and 1000°F for 15 minutes.



Aerovent, a Twin City Fan Company, certifies that the Model AMX, AMXR, AMXSH Mixed Flow Fans shown herein are licensed to bear the AMCA Seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 211 and AMCA Publication 311 and comply with the requirements of the AMCA Certified Ratings Program. See Catalog 331 for sound ratings.

Application

Mixed flow fans are becoming a popular choice on many air supply, return, general and grease-laden exhaust and laboratory exhaust applications in the HVAC industry for both constant or variable air volume systems. The efficiency and sound characteristics of the mixed flow fans are often desired in buildings such as hospitals, libraries, theaters, and general offices. The Aerovent heavy-duty construction of AMX fans also make them suitable for many industrial applications handling ambient air. Applications involving fumes, spray booth exhaust, particulate, heavy moisture content, or high temperature should be discussed with the factory for possible product modifications.

Benefits of Mixed Flow Fans

Aerovent Model AMX Mixed Flow Fan combines the benefits of axial flow and centrifugal flow fans. The AMX has the advantage of the compact design and straight-through airflow as well as the preferred acoustic characteristics and high pressure capability. AMX fans offer superior air and sound performance and the AMCA certified rating seal for air and sound.

The AMX mounts both vertically and horizontally, allowing for numerous applications with multiple mounting arrangements. Sizes range from 150 - 730 and performance ranges from 1,300 - 160,000 CFM. Model AMX is UL/cUL 705 listed.

Mixed Flow Models

AMX – Available in both direct drive and belt driven. The AMX mounts both vertically and horizontally, allowing for numerous applications with multiple mounting arrangements. Sizes range from 150 - 730 and performance ranges from 1,300 - 160,000 CFM. Model AMX is UL/cUL 705 listed.

AMXR – Model AMXR is similar to the AMX but is specifically designed for exhausting grease-laden air from kitchens, restaurants and cooking and dishwasher hoods. Model AMXR is UL/cUL 762 listed for the exhaust of grease-laden air.

AMXSH – Model AMXSH is specifically designed for smoke control applications. UL/cUL listed for smoke control systems for 500°F for 4 hours or 1000°F for 15 minutes.

Energy Savings

Mixed flow fans offer the economy of operation with a higher and broader efficiency range. The lower operating speed for a given performance provides longer and more reliable operation.

Ultra Quiet

The AMCA Certified Ratings for Air and Sound applies to both inlet and outlet sound power levels. The table to the left displays sound and static efficiency differences between performance points for a comparable tubular centrifugal fan and a vaneaxial fan.

Performance	Size	Static Efficiency (%)			Sound LwA (dB)		
		AMX	CBD	VPBD	AMX	CBD	VPBD
5000 CFM @ 1" SP	AMX 245	70	62	61	72	77	79
10000 CFM @ 1" SP	AMX 330	70	61	63	72	79	82
25000 CFM @ 3" SP	AMX 402	72	66	65	86	90	98
50000 CFM @ 6" SP	AMX 490	71	68	64	95	98	112

Construction Features

Housings

All fans are constructed of heavy-gauge steel and continuously welded for strength and rigidity. All AMX fans are provided with punched inlet and outlet flanges as standard.

Wheel

The AMX wheel impeller is designed with true airfoil (double surface - hollow) die-formed, continuously-welded blades for a stable air performance throughout the operating range. The wheel is statically and dynamically balanced prior to assembly and rechecked for balance after assembly by Aerovent.

Belt Guard

Totally enclosed, sealed belt guard is standard on model AMX. Totally enclosed, non-sealed belt guard is standard on models AMXR and AMXSH.

Inner Cylinder

The inner tube is rigidly constructed to support the shaft and bearings. The removable discharge cone provides full access to the shaft, bearings, and fan sheave. It is strongly recommended that an access door be provided in the ductwork adjacent to the discharge end of the fan for such service.

Bearings

Standard bearings are selected to exceed the L-10 life of 40,000 hours at the maximum operating speed.

Drives

V-belt drives with motors and drives mounted by Aerovent are test run as a complete assembly and rechecked for balance.

Shaft

Shaft diameter sized so that maximum operating speed does not exceed 70% of first critical speed.



AMX Wheel

Straightening Vanes

Straightening vanes convert tangential velocity pressure into useful static pressure, reducing turbulence and increasing efficiency. Extensive testing of various shapes and locations has resulted in the most efficient aerodynamic design of the straightening vanes.

Extended Lube Lines

Allow for ease of lubrication on all sizes.

Motor Mounting Platform

A heavy-duty motor mounting platform pivots to offer easy and positive adjustment of belt tension. The motor mounting platform is offered in eight standard locations to allow for motor accessibility and space requirements.

Easy Access Designs

Clamshell Design

Two clamshell style doors swing open wide to provide complete access to the interior of the fan for maintenance or cleaning without removal of ductwork. Heavy duty hinges, positive locking latches, and full gasketing provide a complete seal when doors are closed. An access door provides access to the bearings. Available on all fan sizes, typically vertical mount.

Swingout Design - Arr. #9SO

Provides full access to the wheel and inner casing. The entire wheel/shaft/bearing assembly is mounted on a large swingout door. Ideal for systems requiring frequent cleaning without removal of ductwork. Swingout construction is available for vertical mounting only. Available on sizes 182 and larger.

Mounting Configurations

Horizontal Construction

Horizontal construction is available in sizes 150 through 730.

Horizontal Base Mounted (HBM) — Support legs are provided at each end of the fan for floor mounting.

Horizontal Ceiling Hung (HCH) — For duct mounted fans, four suspension clips are welded to the fan casing to allow ceiling suspension using rod hangers.

Horizontal (HOR) — For mounting configurations where support legs and suspension clips are not required.

Vertical Construction

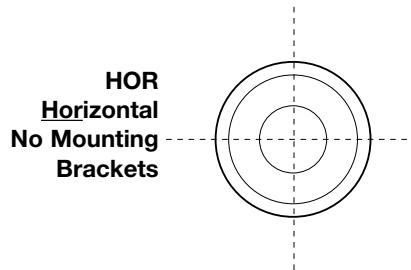
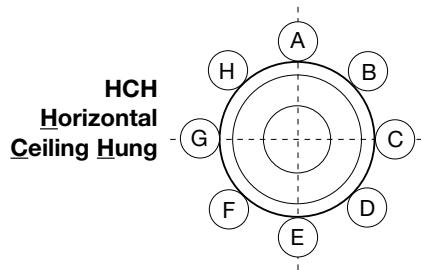
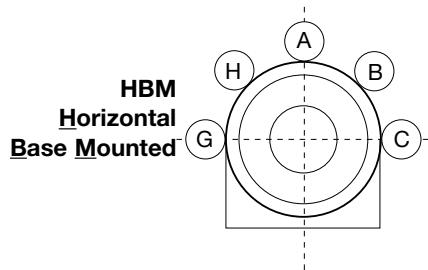
Vertical construction is available in sizes 150 through 542. Consult factory for larger sizes.

Floor or Ceiling Mounted (VUI/VUO/VDI/VDO) — Four vertical brackets are welded to either end of the fan housing. Bracket location is determined by airflow direction and support details (see drawing below).

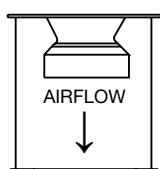
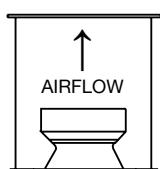
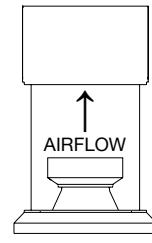
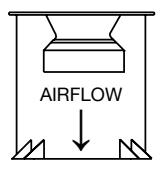
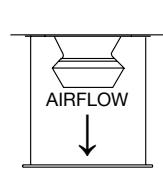
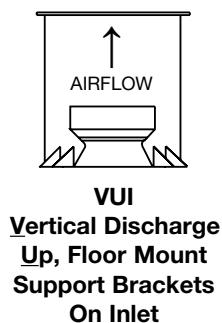
Roof Mounted (VRM) — A curb cap provides weathertight seal for roof curb mounted fans. A discharge cap and weather cover are also available for the upblast style roof ventilator.

Vertical (VUN/VDN) — For mounting configurations where support brackets are not required

Discharge Arrangements



NOTE: Horizontal motor positions shown from outlet end.



VUN
Vertical Up
No Brackets

VDN
Vertical Down
No Brackets

Accessories

Belt Tube

A belt tube encloses the belts and drive components, protecting them from the airstream.

Support Legs — Horizontal Flow

For horizontal flow with floor mounting, support legs are welded to the fan flange with bolt holes aligned for connection of ductwork.

Support Legs — Vertical Flow

For vertical flow with either floor or ceiling mounting, support legs are welded to the fan housing for four-point support.

Suspension Clips

For horizontal flow with ceiling mounting, four clips of formed angle are welded to the fan housing for suspension via tie rods to the ceiling support structure.

Inlet and Outlet Screens

Safety screening can be provided for installation in the fan inlet or fan outlet.

Discharge Cap

Discharge caps are designed for vertical, rooftop discharge with butterfly type dampers to seal out the weather when the fan is shut off.

Curb Cap

Attached to the fan's flange for curb mounting.

Shaft Seal

To limit the air entering the inner cylinder and avoid contact of airstream contaminants with the bearings and V-belt drive. Consists of a Teflon wear pad/plate and a rubber chekseal at the wheel end of the inner cylinder. Please note that a shaft seal does not make the inner cylinder gas tight.

Weather Cover

For outdoor installations, the weather cover completely encloses the motor and V-belt drive from the elements. Provided with slots for ventilation. Weather covers are available for either horizontal or vertical flow fans.

Companion Flanges

Flanges are rolled angle rings, drilled to match the fan's inlet or outlet flange.

Spark-Resistant Construction

Various grades of spark resistance are as dictated by AMCA: Types A, B, and C. Spark resistant construction requires the addition of a sealed belt tube.

Vibration Isolation

Spring or rubber-in-shear isolators as an option. Spring isolators can be provided for floor mount or ceiling hung orientation.

Seismic Certification

Models AMX, AMXR, AMXSH have been seismically tested and certified with California Office of Statewide Health, Planning and Development (OSHPD) per OPS-0271-10.



Support Legs, Horizontal



Support Legs, Vertical



Suspension Clips, Horizontal



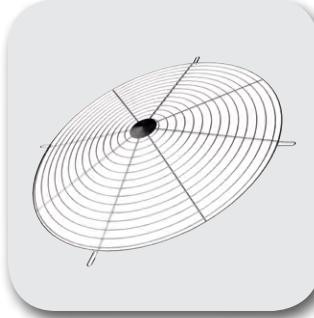
Discharge Cap



Curb Cap



Shaft Seal



Inlet/Outlet Screens



Companion Flange

AMXR / AMXSH

AMXR Restaurant Fans

Aerovent offers a specially modified version of the AMX fan designated as "AMXR" (Mixed Flow Restaurant Exhaust) for exhausting grease-laden air from kitchens, restaurants, cooking and dishwasher hoods. AMXR is available in sizes 150 through 730.

Model AMXR is cULus 762 listed for exhaust of grease-laden air. AMXR is licensed to bear the AMCA certified ratings seal for sound and air performance.

The AMXR fan is available in all configurations with the exception of vertical down (VDN, VDO and VDI).

Standard Product Features

- Belt guard, totally enclosed, ventilated (weather cover for VRM)
- Belt tube, sealed
- Two cleanout doors located 180° apart (90° from motor)
- 2" drain located 180° from motor (lowest point for horizontal) vertical at the funnel
- Cooling fins on wheel
- Housing sealed with Hi-Temp caulk

AMXSH Smoke & Heat Fans

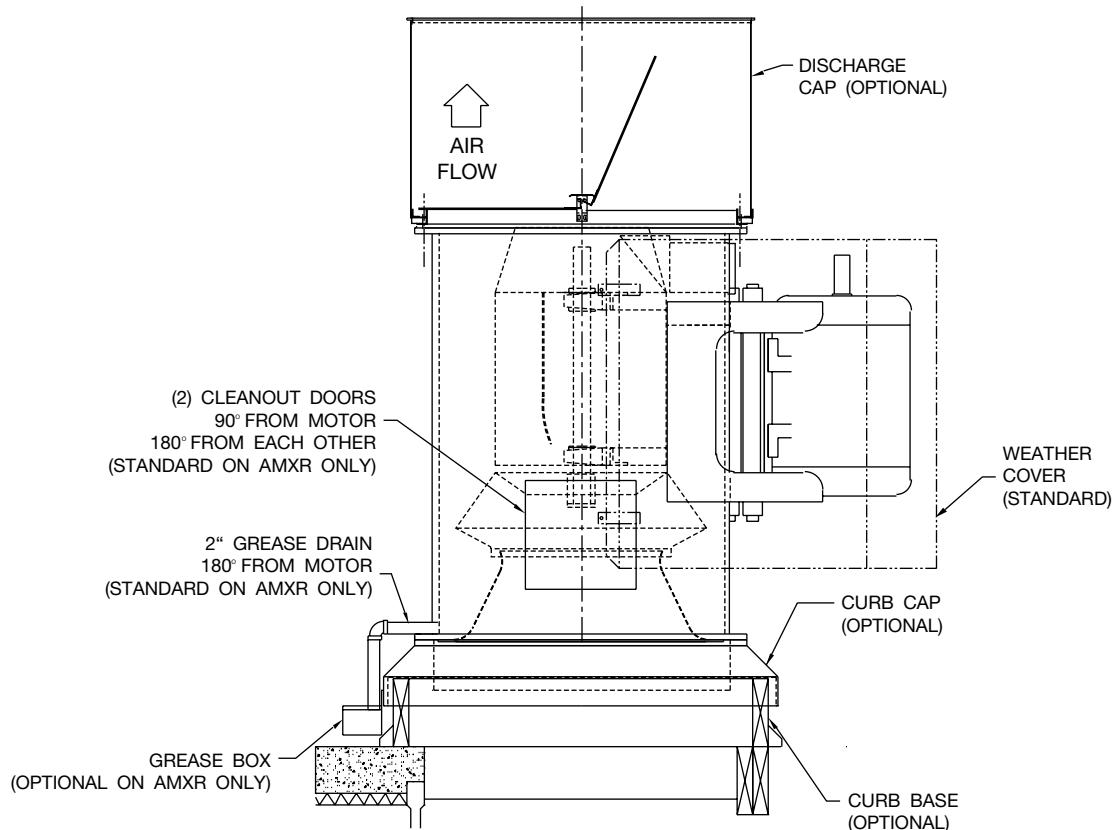
Aerovent offers a specially modified version of the AMX fan designated as "AMXSH" (Mixed Flow Smoke and Heat Exhaust) for smoke control applications where temperatures can reach 1000°F. AMXSH is available in sizes 150 through 730.

Model AMXSH is cULus 705 listed and cULus listed for smoke control systems for 500°F for 4 hours or 1000°F for 15 minutes. Vertical roof mounted configuration, with discharge cap, meets UL 793 Snow Load Test requirements for butterfly dampers. AMXSH is licensed to bear the AMCA certified ratings seal for sound and air performance.

The AMXSH fan is available in all configurations with the exception of vertical down (VDN, VDO and VDI).

Standard Product Features

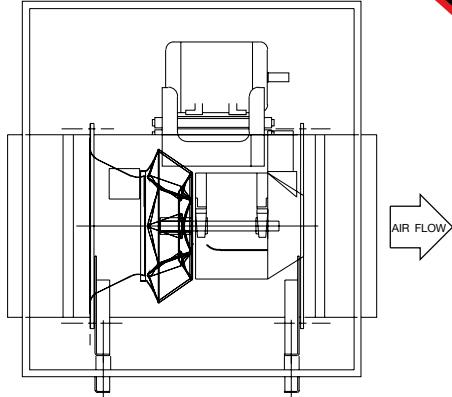
- Belt guard, ventilated (weather cover for VRM)
- Belt tube, sealed
- Two-groove drive minimum w/2.0 SF
- Cooling fins on wheel
- Stack cap with fusible link (for VRM)
- Continuously welded housing



Options & Arrangements

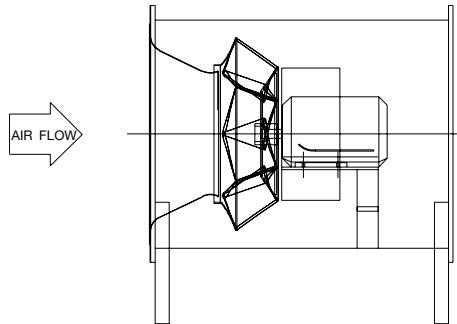
Insulated Enclosure

To further reduce case radiated sound and motor noise, an optional Insulated Enclosure is available. The enclosure consists of a box with 2 inch thick, dual density fiberglass. Consult the factory for dimensions and sound reduction values.



Arrangement 4 (Direct Drive)

Where space constraints require the use of a complete "in line" fan or the desire is for a simple, dependable fan with minimum maintenance requirements, the direct drive Arrangement 4 AMX is available. Constructed with the fan wheel mounted directly on the motor shaft, this fan provides premium efficiency with minimal obstructions in the airstream. The use of a variable frequency drive (VFD) may be necessary for some applications.



Arrangement 3

Where space is a premium, the AMX arrangement 3 is available to shorten the overall fan length. The table below shows the overall savings in length versus an Arrangement 9 fan.

Fan Size	Arr. 3 Overall Length (TA)	Length Savings (IN.)
182	26.75	7.13
200	28.81	8.38
222	30.88	9.25
245	33.94	10.38
270	36.50	12.31
300	40.88	13.69
330	44.94	14.94
365	49.44	16.94
402	54.31	18.69
445	59.06	21.88
490	64.06	24.94
542	71.38	27.38

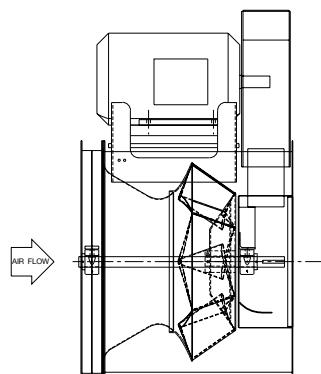


Table 1. Maximum RPM, Wheel Weights, and WR² (moment of inertia in lb-ft²)

FAN SIZE	CLASS I			CLASS II		
	MAX. RPM	WEIGHT LB	WR ² LB-FT ²	MAX. RPM	WEIGHT LB	WR ² LB-FT ²
150	2721	24	5.5	3558	28	7.1
165	2483	32	8.0	3247	36	10.3
182	2232	38	12	2918	44	15
200	2027	48	20	2650	52	23
222	1839	57	29	2405	62	34
245	1655	69	45	2165	75	52
270	1505	82	66	1968	90	76
300	1360	140	133	1779	150	145
330	1234	167	197	1613	179	215
365	1116	233	320	1459	247	347
402	1013	324	588	1325	324	588
445	915	393	883	1197	393	883
490	828	478	1321	1082	478	1321
542	752	591	1934	984	591	1934
600	680	715	2893	890	715	2893
660	615	867	4334	804	867	4334
730	558	1064	6396	730	1064	6396

Table 2. Bare Fan Weights (lb)

FAN SIZE	ARRANGEMENT 9	
	CLASS I	CLASS II
150	168	175
165	202	210
182	215	227
200	257	267
222	303	315
245	367	377
270	434	450
300	660	690
330	802	821
365	1019	1048
402	1332	1357
445	1595	1627
490	1992	2008
542	2504	2537
600	3006	3034
660	3880	3979
730	4719	4758

Table 3. Temperature and Altitude Density Ratios

AIR TEMP °F	ALTITUDE IN FEET ABOVE SEA LEVEL											
	BAROMETRIC PRESSURE IN INCHES OF MERCURY											
	0	1000	2000	3000	4000	5000	6000	7000	8000	9000	10000	15000
-50	29.92	28.86	27.82	26.82	25.84	24.9	23.98	23.09	22.22	21.39	20.58	16.89
0	1.293	1.247	1.201	1.159	1.116	1.076	1.036	0.997	0.960	0.924	0.889	0.729
70	1.152	1.111	1.071	1.032	0.995	0.959	0.923	0.889	0.856	0.824	0.792	0.65
100	1.000	0.964	0.930	0.896	0.864	0.832	0.801	0.772	0.743	0.714	0.688	0.564
150	0.869	0.838	0.808	0.770	0.751	0.723	0.696	0.671	0.646	0.620	0.598	0.490
200	0.803	0.774	0.747	0.720	0.694	0.668	0.643	0.62	0.596	0.573	0.552	0.453

Table 4. Bearing Specifications

FAN SIZE	CLASS I			CLASS II		
	SHAFT DIA. (IN.)	HORIZ.	VERT.	SHAFT DIA. (IN.)	HORIZ.	VERT.
150	1.000	SDB	SDB	1.187	SDB	SDB
165	1.000	SDB	SDB	1.437	SDB	SDB
182	1.000	SDB	SDB	1.437	HDB	HDB
200	1.187	SDB	SDB	1.437	HDB	HDB
222	1.187	SDB	SDB	1.437	HDB	HDB
245	1.437	SDB	SDB	1.687	HDB	HDB
270	1.437	SDB	SDB	1.687	HDB	RB
300	1.437	HDB	HDB	1.937	HDB	RB
330	1.687	HDB	HDB	2.187	HDB	RB
365	1.937	HDB	HDB	2.187	RB	RB
402	1.937	HDB	RB	2.187	RB	RB
445	1.937	HDB	RB	2.437	RB	RB
490	2.187	HDB	RB	2.437	RB	RB
542	2.437	HDB	RB	2.687	RB	RB
600	2.687	HDB	—	2.937	RB	—
660	2.937	HDB	—	3.437	RB	—
730	2.937	HDB	—	3.937	RB	—

NOTES:

1. BEARINGS CODES:
 SDB — Standard-Duty Ball such as Dodge SCAH or SKF SY Series
 HDB — Heavy-Duty Ball such as Dodge SCMAH or SKF SYM Series
 RB — Roller Bearing such as Dodge S2000 or SKF SYR Series
2. Standard bearings are selected to exceed L-10 life of 40,000 hours at the maximum operating speed.

Table 5. Minimum CFM Required to Open Discharge Cap

FAN SIZE	CFM
150	1051
165	1707
182	2532
200	3527
222	3527
245	4693
270	6574
300	7605
330	8712
365	11158
402	15891
445	15891
490	20904
542	26613

AMX | AMXR | AMXSH

Size 660

Wheel Dia.: 80.75"
Outlet Dia.: 89.31"

Max. BHP = 342.30 (RPM ÷ 1000)³
Tip Speed FPM = 21.14 x RPM

Outlet Area: 43.50 ft²
Fan Efficiency Grade: FEG80

CFM	OV	0.5" SP		1" SP		1.5" SP		2" SP		2.5" SP		3" SP		4" SP		5" SP		6" SP		7" SP		8" SP		
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	
33000	759	222	3.65	280	7.44	328	11.60																	
37000	851	236	4.28	289	8.19	335	12.65	377	17.45															
41000	943	251	5.01	298	8.96	344	13.80	384	18.93	421	24.24													
45000	1035	266	5.80	309	9.90	353	14.93	392	20.37	428	26.11	461	31.84											
50000	1150	286	6.97	326	11.39	365	16.47	403	22.22	437	28.21	470	34.68											
55000	1265	306	8.26	344	13.08	379	18.27	415	24.25	448	30.52	480	37.39	538	51.45									
60000	1380	326	9.70	363	15.01	394	20.20	427	26.29	460	33.04	491	40.17	547	55.01	598	70.18							
67500	1552	358	12.40	391	18.09	421	23.96	450	30.26	479	37.10	508	44.48	562	60.21	612	77.10	659	94.61	702	111.79			
75000	1725	390	15.60	421	21.79	450	28.42	476	34.98	501	41.81	527	49.33	580	66.23	628	83.99	673	102.71	715	121.64	755	140.76	
82500	1897			452	26.10	479	33.29	504	40.49	527	47.66	550	55.27	598	72.37	645	91.10	688	110.45	730	131.33	769	152.17	
90000	2069			483	30.97	508	38.55	532	46.43	555	54.43	576	62.29	619	79.56	663	98.76	706	119.47	746	140.85	784	162.96	
97500	2242			514	36.48	539	44.79	562	53.35	583	61.67	604	70.37	643	87.90	683	107.31	724	128.67	763	150.80	800	173.75	
105000	2414			546	42.92	569	51.41	591	60.48	612	69.75	632	78.96	669	97.35	705	116.72	743	138.39	781	161.53			
112500	2587					601	59.31	622	68.85	642	78.68	661	88.50	697	108.15	730	127.75	765	149.7	800	172.88			
120000	2759					632	67.73	652	77.61	672	88.24	690	98.57	725	119.55	757	140.27	789	162.24					
127500	2932					664	77.35	684	87.92	702	98.52	720	109.69	754	132.10	785	153.94							

MAXIMUM RPM: Class I — 615

Class II — 804

MAX. MOTOR FRAME: 445T

Size 730

Wheel Dia.: 89.00"
Outlet Dia.: 98.81"

Max. BHP = 556.14 (RPM ÷ 1000)³
Tip Speed FPM = 23.30 x RPM

Outlet Area: 53.25 ft²
Fan Efficiency Grade: FEG80

CFM	OV	0.5" SP		1" SP		1.5" SP		2" SP		2.5" SP		3" SP		4" SP		5" SP		6" SP		7" SP		8" SP		
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	
40000	752	202	4.47	254	9.03	298	14.13																	
45000	846	214	5.19	262	9.93	304	15.37	342	21.20															
50000	940	228	6.10	271	10.96	312	16.75	349	23.13	382	29.49													
57500	1081	250	7.71	287	12.79	325	18.95	360	25.73	392	32.92	422	40.32											
65000	1222	272	9.53	307	15.23	340	21.53	373	28.65	404	36.38	432	44.23	485	60.85									
72500	1364	295	11.71	328	18.03	357	24.47	387	31.85	417	40.03	444	48.31	496	66.65	542	84.86							
80000	1505	318	14.23	349	21.09	377	28.17	403	35.51	430	43.74	457	52.69	507	71.83	553	92.19	595	112.50					
87500	1646	342	17.28	371	24.59	398	32.35	422	40.03	446	48.31	471	57.48	520	77.64	564	98.76	605	120.69	644	143.15	681	165.88	
95000	1787	366	20.77	394	28.63	419	36.85	442	45.06	464	53.56	487	62.98	533	83.54	576	105.50	616	128.59	654	152.57	690	176.78	
102500	1928			417	33.09	441	41.93	463	50.73	484	59.71	505	69.27	547	89.94	589	112.81	628	136.70	666	162.51	701	188.15	
110000	2069			440	38.01	463	47.37	485	57.11	505	66.58	524	76.16	563	97.27	603	120.81	641	145.42	678	172.00	712	198.61	
120000	2257			472	45.79	493	55.50	514	66.09	534	76.79	552	87.05	587	108.47	623	132.25	659	157.73	695	185.35	728	213.00	
130000	2445			504	54.66	524	64.92	544	76.22	563	87.77	580	98.71	614	121.83	646	145.53	679	171.44	713	199.74			
140000	2633					555	75.44	574	87.29	592	99.51	609	111.71	641	135.93	672	161.19	702	187.36					
150000	2821					587	87.61	605	99.94	622	112.69	639	126.10	670	152.20	699	178.30	727	205.14					
160000	3009					619	101.14	636	113.86	653	127.58	668	140.88	699	169.47	727	197.09							

MAXIMUM RPM: Class I — 558

Class II — 730

MAX. MOTOR FRAME: 445T

Performance certified is for installation Type B: Free inlet, ducted outlet.

Power rating (BHP) does not include transmission losses.

Performance ratings do not include the effects of appurtenances (accessories).

Underlined figures indicate maximum static efficiency.

Legend:

Class I = Regular face to left of Class II

Class II = Regular face in light shaded area

Horizontal

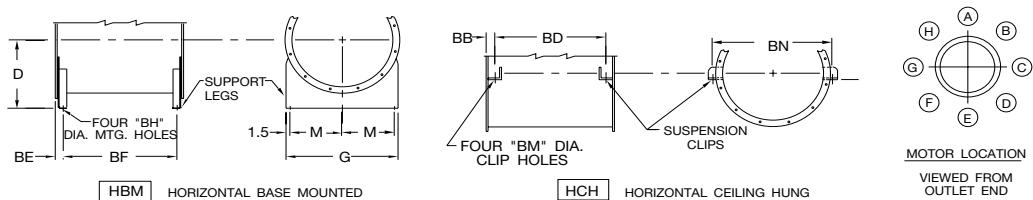
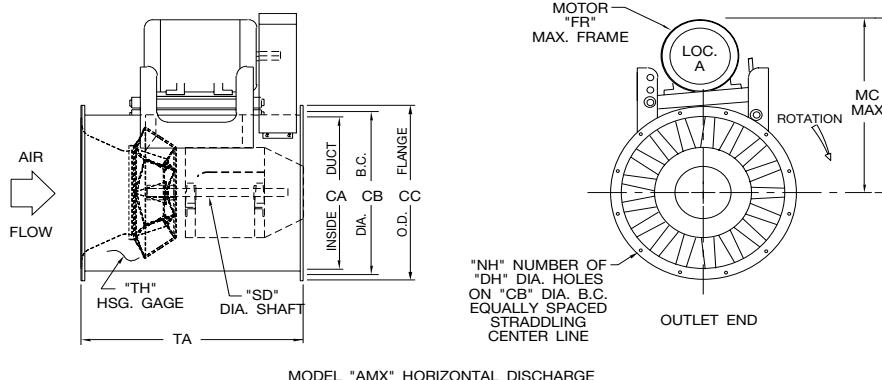
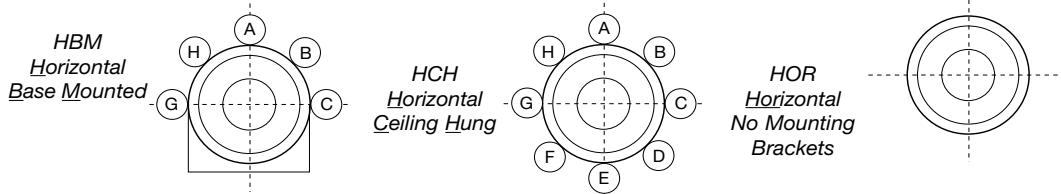
Horizontal construction is available in sizes 150 through 730.

Horizontal Base Mounted (HBM) — Support legs are provided at each end of the fan for floor mounting.

Horizontal Ceiling Hung (HCH) — For duct mounted fans, four suspension clips are welded to the fan casing to allow ceiling suspension using rod hangers.

Horizontal (HOR) — For mounting configurations where support legs and suspension clips are not required.

Discharge Arrangements



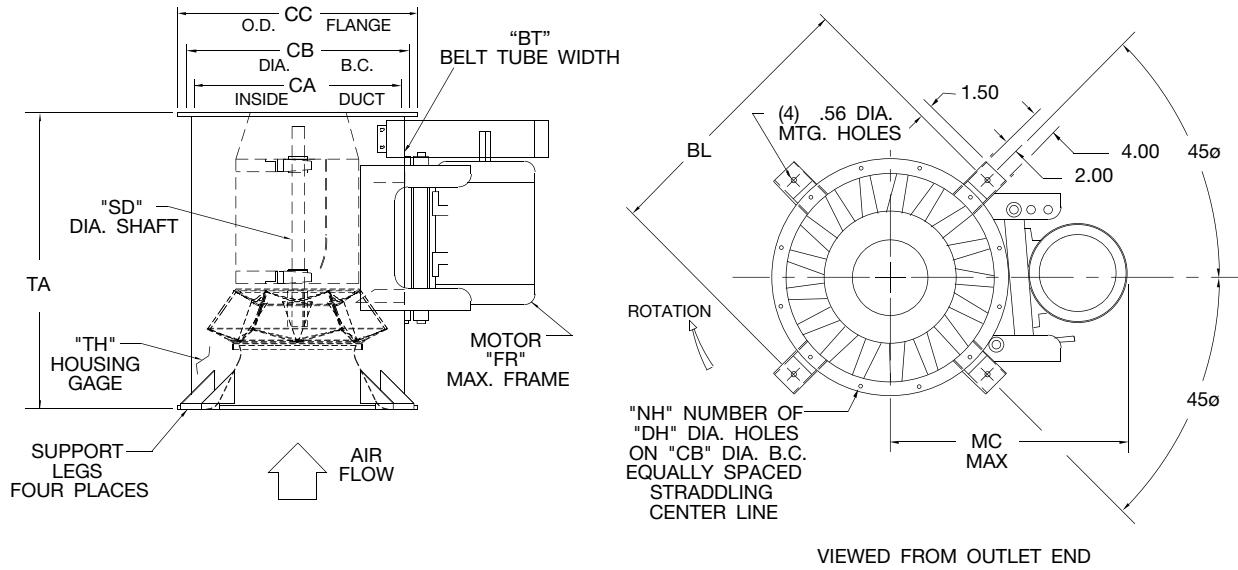
NOTE: Horizontal motor positions shown from outlet end.

SIZE	BB	BD	BE	BF	BH	BM	BN	CA	CB	CC	D	DH	FR	G	M	MC	NH	SD		TA	TH
																		CL I	CL II		
150	1.00	25.78	1.06	25.65	0.44	0.56	23.5	20.25	22.13	23.38	14	0.56	215T	23.38	10.19	25.73	8	1.000	1.187	27.78	10
165	1.00	28.62	1.06	28.50	0.44	0.56	25.88	22.31	24.38	25.75	15	0.69	215T	25.75	11.25	27.79	8	1.000	1.437	30.62	10
182	1.50	30.89	1.06	31.76	0.44	0.56	27.75	24.69	26.75	28.00	16	0.69	256T	28.00	12.50	34.45	12	1.000	1.437	33.89	12
200	1.50	34.18	1.06	35.05	0.56	0.56	30.13	27.06	29.13	30.31	18	0.81	256T	30.31	13.66	36.20	12	1.187	1.437	37.18	12
222	1.50	37.19	1.31	37.57	0.56	0.56	33.13	30.06	32.13	33.38	20	0.81	256T	33.38	15.19	37.65	12	1.187	1.437	40.19	12
245	1.50	41.31	1.31	41.69	0.56	0.81	36.25	33.13	35.13	36.38	21	0.81	286T	36.38	16.69	37.86	12	1.437	1.687	44.31	12
270	1.50	45.83	1.31	46.20	0.56	0.81	39.63	36.50	38.50	39.75	23	0.81	286T	39.75	18.38	42.16	12	1.437	1.687	48.83	12
300	1.50	51.52	1.31	51.89	0.56	0.81	43.75	40.56	43.13	44.88	25	0.81	326T	44.88	20.94	45.13	16	1.437	1.937	54.52	10
330	1.50	56.90	1.31	57.28	0.56	0.81	47.88	44.63	47.25	49.00	27	0.81	326T	49.00	23.00	46.56	16	1.687	2.187	59.90	10
365	2.00	62.37	1.56	63.25	0.56	0.81	52.56	49.38	52.00	53.75	29	0.81	365T	53.75	25.38	51.50	16	1.937	2.187	66.37	10
402	2.00	69.00	1.69	69.63	0.81	0.81	57.56	54.38	57.50	59.75	33	0.81	365T	59.75	28.38	59.77	16	1.937	2.187	73.00	10
445	2.00	76.92	1.69	77.54	0.81	0.81	63.38	60.19	63.25	65.50	36	0.81	405T	65.50	31.25	62.22	16	1.937	2.437	80.92	10
490	2.00	84.99	1.69	85.62	0.81	0.81	69.44	66.25	69.38	71.63	39	0.81	405T	71.63	34.31	67.68	24	2.187	2.437	88.99	10
542	2.00	94.71	2.44	93.84	0.81	1.06	76.56	73.38	77.00	79.75	43	0.81	445T	79.75	38.38	71.51	24	2.437	2.687	98.71	10
600	2.50	103.74	2.44	103.87	0.81	1.06	85.38	81.19	84.75	87.50	47	0.81	445T	87.50	42.25	78.41	24	2.687	2.937	108.74	10
660	2.50	115.11	2.44	115.24	1.06	1.06	93.56	89.31	92.88	95.63	52	0.81	445T	95.63	46.31	82.77	24	2.937	3.437	120.11	10
730	2.50	127.71	2.44	127.84	1.06	1.06	102.94	98.75	104.38	107.13	57	0.81	445T	107.13	52.06	87.76	24	2.937	3.937	132.71	10

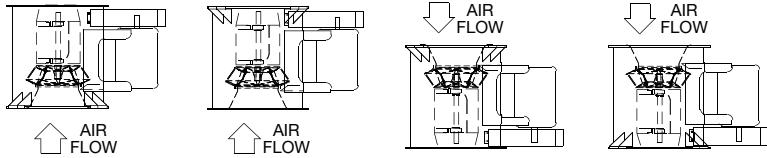
R-1002527-A

DIMENSIONS ARE SUBJECT TO CHANGE. CERTIFIED DRAWINGS AVAILABLE ON REQUEST.

Vertical



TYPE "AMX" VERTICAL UP DISCHARGE WITH FLOOR MOUNT SUPPORT LEGS



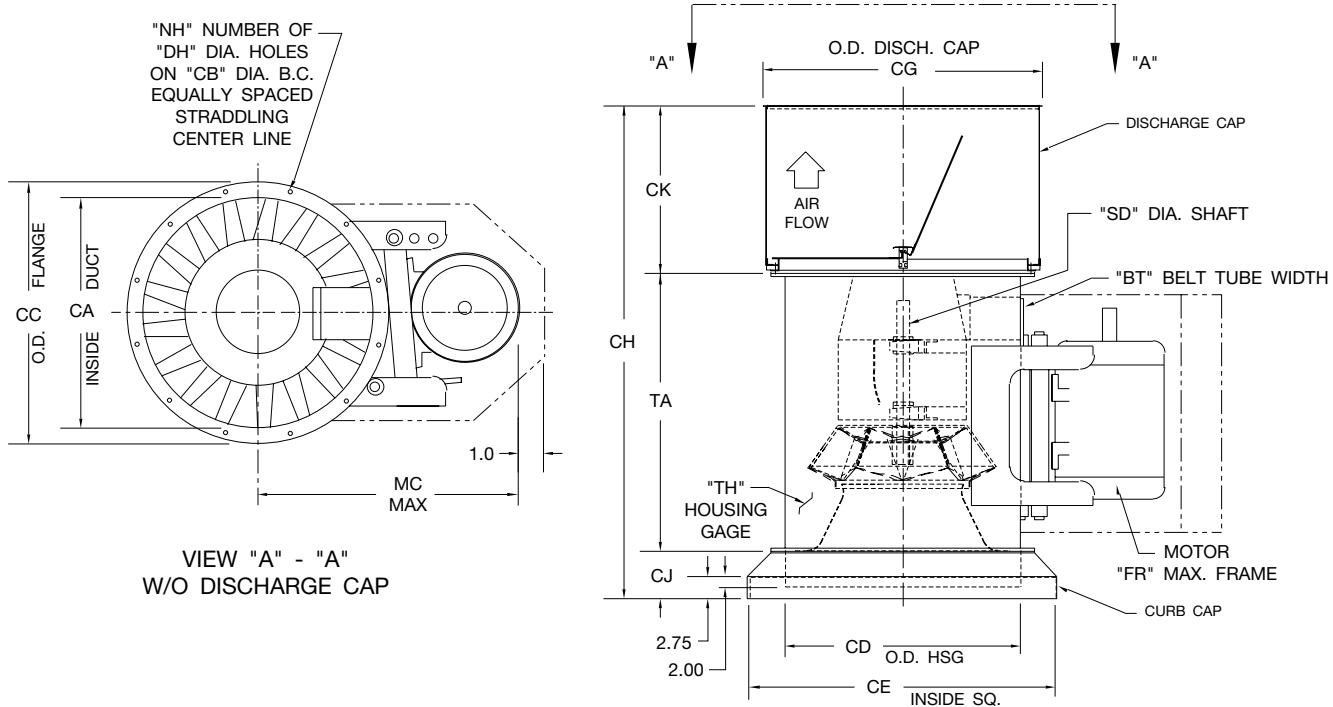
VUI DISCHARGE UP FLOOR MOUNT VUO DISCHARGE UP CEILING HUNG VDI DISCH. DOWN CEILING HUNG VDO DISCH. DOWN FLOOR MOUNT

SIZE	BL	BT	CA	CB	CC	DH	FR	MC	NH	SD		TA	TH
										CLI	CLII		
150	25.38	6.50	20.25	22.13	23.38	0.56	215T	25.73	8	1.000	1.187	27.75	10
165	27.94	6.50	22.31	24.38	25.75	0.69	215T	27.73	8	1.000	1.437	30.36	10
182	33.00	6.50	24.69	26.75	28.00	0.69	256T	34.45	12	1.000	1.437	33.88	12
200	35.38	7.25	27.06	29.13	30.31	0.81	256T	36.20	12	1.187	1.437	37.19	12
222	38.00	8.00	30.06	32.13	33.38	0.81	256T	37.65	12	1.187	1.437	40.19	12
245	41.38	8.93	33.13	35.13	36.38	0.81	286T	37.86	12	1.437	1.687	44.31	12
270	44.75	9.75	36.50	38.50	39.75	0.81	286T	42.16	12	1.437	1.687	48.81	12
300	49.88	10.93	40.56	43.13	44.88	0.81	326T	45.13	16	1.437	1.937	54.56	10
330	54.00	12.00	44.63	47.25	49.00	0.81	326T	46.56	16	1.687	2.187	59.88	10
365	58.75	13.25	49.38	52.00	53.75	0.81	365T	51.50	16	1.937	2.187	66.38	10
402	64.75	14.75	54.38	57.50	59.75	0.81	365T	59.77	16	1.937	2.187	73.00	10
445	70.50	16.25	60.19	63.25	65.50	0.81	405T	62.22	16	1.937	2.437	80.94	10
490	76.63	18.00	66.25	69.38	71.63	0.81	405T	67.68	24	2.187	2.437	88.00	10
542	84.75	19.88	73.38	77.00	79.75	0.81	445T	71.51	24	2.437	2.687	98.69	10

R-1002528-B
R-1002672-B
R-1002675-B

DIMENSIONS ARE SUBJECT TO CHANGE. CERTIFIED DRAWINGS AVAILABLE ON REQUEST.

Vertical Roof



TYPE "AMX" VERTICAL DISCHARGE WITH DISCHARGE CAP AND CURB CAP

SIZE	BL	BT	CA	CB	CC	CD	CE	CG	CH	CJ	CK	DH	FR	MC	NH	SD		TA	TH
																CLI	CLII		
150	25.38	6.50	20.25	22.13	23.38	20.50	27.38	30.00	48.75	6.00	15.00	0.56	215T	25.73	8	1.000	1.187	27.75	10
165	27.94	6.50	22.31	24.38	25.75	22.56	30.88	32.00	54.94	6.31	18.00	0.69	215T	27.73	8	1.000	1.437	30.36	10
182	33.00	6.50	24.69	26.75	28.00	24.88	34.88	34.00	58.50	6.63	18.00	0.69	256T	34.45	12	1.000	1.437	33.88	12
200	35.38	7.25	27.06	29.13	30.31	27.25	37.38	40.00	64.94	6.75	21.00	0.81	256T	36.20	12	1.187	1.437	37.19	12
222	38.00	8.00	30.06	32.13	33.38	30.25	40.38	40.00	67.94	6.75	21.00	0.81	256T	37.65	12	1.187	1.437	40.19	12
245	41.38	8.93	33.13	35.13	36.38	33.31	43.38	46.00	75.31	7.00	24.00	0.81	286T	37.86	12	1.437	1.687	44.31	12
270	44.75	9.75	36.50	38.50	39.75	36.69	46.75	46.00	80.06	7.25	24.00	0.81	286T	42.16	12	1.437	1.687	48.81	12
300	49.88	10.93	40.56	43.13	44.88	40.81	51.00	53.00	89.31	7.75	27.00	0.81	326T	45.13	16	1.437	1.937	54.56	10
330	54.00	12.00	44.63	47.25	49.00	44.88	55.13	59.00	97.63	7.75	30.00	0.81	326T	46.56	16	1.687	2.187	59.88	10
365	58.75	13.25	49.38	52.00	53.75	49.63	59.88	60.00	104.13	7.75	30.00	0.81	365T	51.50	16	1.937	2.187	66.38	10
402	64.75	14.75	54.38	57.50	59.75	54.63	64.88	67.00	114.00	8.00	33.00	0.81	365T	59.77	16	1.937	2.187	73.00	10
445	70.50	16.25	60.19	63.25	65.50	60.44	69.63	73.00	125.44	8.50	36.00	0.81	405T	62.22	16	1.937	2.437	80.94	10
490	76.63	18.00	66.25	69.38	71.63	66.50	78.00	80.00	138.00	9.00	40.00	0.81	405T	67.68	24	2.187	2.437	88.00	10
542	84.75	19.88	73.38	77.00	79.75	73.63	88.75	86.50	157.56	9.25	49.63	0.81	445T	71.51	24	2.437	2.687	98.69	10

R-1002529-B

R-1002673-A

R-1002676-A

DIMENSIONS ARE SUBJECT TO CHANGE. CERTIFIED DRAWINGS AVAILABLE ON REQUEST.

AMX | AMXR | AMXSH

Fans shall be Model AMX (standard mixed flow), Model AMXR (restaurant), Model AMXSH (smoke and heat) of the non-overloading design, as manufactured by Aerovent, Minneapolis, Minnesota.

PERFORMANCE — Performance ratings shall conform to AMCA Standard 205 (fan efficiency grade), 211 (air performance) and 311 (sound 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 be licensed to bear the AMCA certified ratings seal for both sound and air, and fan efficiency grade (FEG). 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.

Model AMX shall be available UL 705 listed. Model AMXR shall be UL 762 listed for the exhaust of grease-laden air. Model AMXSH shall be UL listed for Smoke Control Systems (500°F for 4 hours and 1000°F for 15 minutes). Fans shall bear a permanently attached nameplate displaying model and serial number of the unit for future identification.

HOUSING — Housings shall be cylindrical and welded steel throughout. Inlets shall be fully streamlined. Housings shall be suitably braced to prevent vibration or pulsation. Totally enclosed belt guard shall enclose motor sheave and V-belt drives. Punched inlet and outlet flanges shall be equipped for duct mounting. Extended lube lines shall be provided for ease of lubrication. Model AMX shall include bolted access door for inspection and maintenance of wheel. Model AMXR shall include a belt tube, 2 wheel cleanout doors (located 180° apart) for inspection and maintenance of the wheel and a 2" drain. Model AMXSH shall include a belt tube for the protection of belts and drive components from the airstream and bolted access door.

WHEEL — Fan wheels shall have die-formed hollow airfoil blades designed for maximum efficiency, and quiet and stable operation. Blades shall be continuously welded to the back plate and wheel cone. Wheels shall be statically and dynamically balanced and the complete fan assembly including motor and drive shall be test balanced at or near the operating speed at the factory prior to shipment. Wheels on models AMXR and AMXSH shall have cooling fins to draw cool air over shaft and bearings.

SHAFT — Shafts shall be AISI 1040 or 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 L-10 life of 40,000 hours at the maximum fan RPM. Bearings shall be equipped with extended lubrication lines with grease fittings outside of the fan housing.

DRIVE — Motor sheaves shall be cast iron, variable pitch on applications 10 HP and smaller, and fixed pitch on 15 HP and larger. Model AMXSH shall be equipped with a two-groove drive minimum.

INLET VANES — Inlet vanes, where specified, shall be of the nested design. Inlet vanes shall be designed for economical, stable, and efficient air volume control at partial load conditions.

FINISH AND COATING — The entire fan assembly, excluding the shaft, shall be thoroughly degreased and deburred before application of a rust-preventative primer. After the fan is completely assembled, a finish coat of paint shall be applied to the entire assembly. The fan shaft shall be coated with a petroleum-based rust protectant. Aluminum components shall be unpainted.

FACTORY RUN TEST — All fans with motors and drives mounted by Aerovent shall be completely assembled and test run as a unit at the specified operating speed prior to shipment. Each wheel 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.

GUARANTEE — The manufacturer shall guarantee the workmanship and materials for its AMX, AMXR, AMXSH Mixed Flow Fans for at least one (1) year from startup or eighteen (18) months from shipment, whichever occurs first.



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5959 Trenton Lane N | Minneapolis, MN 55442 | Phone: 763-551-7500 | Fax: 763-551-7501