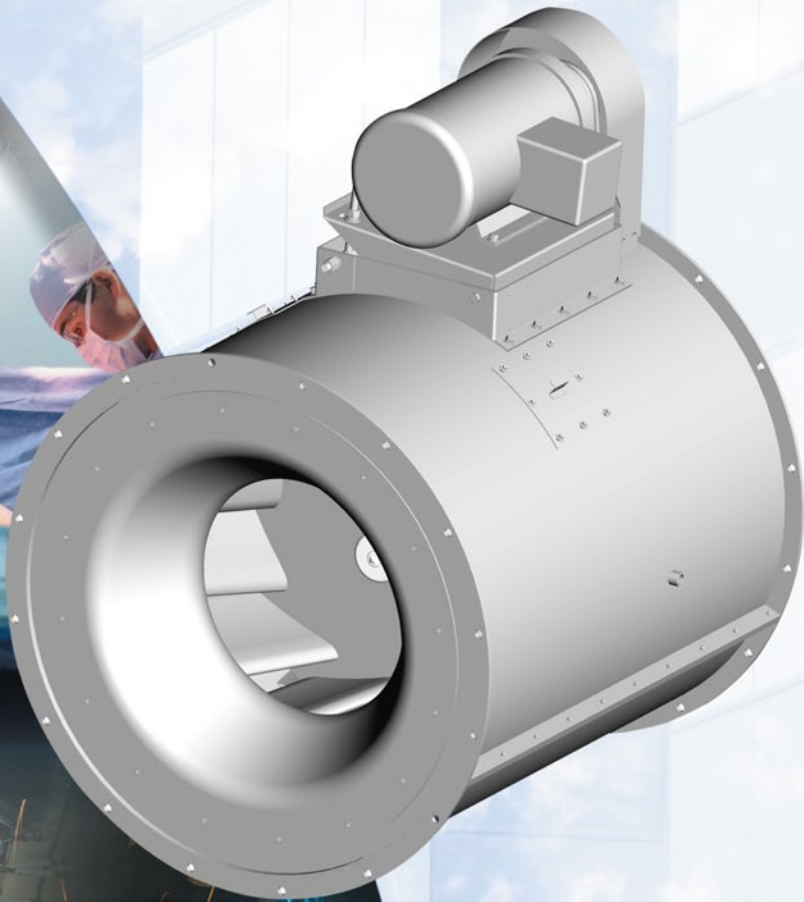


# M.K. plastics

CORPORATION

SERVING THE NEEDS OF MODERN INDUSTRY



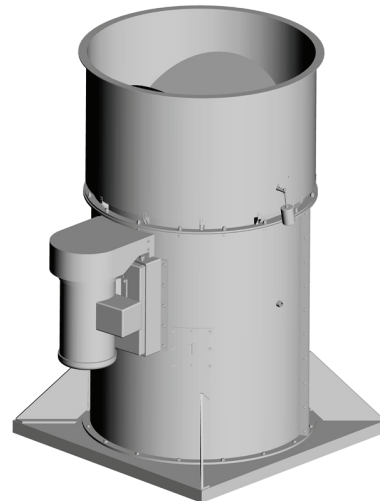
**AXTC**  
TUBULAR INLINE CENTRIFUGAL  
FIBERGLASS FAN

We are pleased to provide you with this Engineering brochure for the AXTC Tubular Inline Centrifugal Fiberglass Fan. The information contained within is also available on the M. K. Plastics Electronic Catalog (CD ROM). This CD includes information on all of the M. K. Plastics fans, exhaust systems and their components, and is available from your technical sales representative or M. K. Plastics directly. We look forward to assisting you with your important application.

For over 45 years, M. K. Plastics has been engineering, designing, and fabricating thermoplastic and FRP ventilation components and systems for institutional and industrial applications. Founded in 1963, today M. K. Plastics has facilities and offices in Montréal, Québec, Canada; Spiez, Switzerland; Troy, OH and Mooers, NY, USA. In major cities throughout the United States and Canada, M.K. Plastics is represented by technical sales representatives.

Other quality corrosion resistant fans are available from M.K. Plastics. Your local M.K. Plastics representative will be pleased to provide you with technical information upon request.

- Axijet*® High Plume Dilution Fan
- Axijet*® *LEADLAG*™ Exhaust Fan Control System
- KVC* High Plume Fan
- Plastifer*® Venturi Exhaust System
- DHK* Medium Pressure Centrifugal Fan
- DHK-NW* High Pressure Centrifugal Fan
- CNW* Centrifugal Fiberglass Fan
- PRVS* High Pressure/Low Volume Centrifugal Blower
- AXT* Axial Tubular Propeller Fan
- AXB* Axial Bifurcated Propeller Fan
- AXPR* Axial Panel Propeller Fan
- RBK* Roof Upblast & Sidewall Centrifugal Exhaust Fan
- FRP & PVC* Control Dampers & Gravity Backdraft Dampers
- FRP & PVC* Duct and Fittings
- Mist Eliminators*



## INTRODUCTION

M.K. Plastics Corporation's AXTC is a straight-line airflow centrifugal fiberglass fan featuring the design advantages of an axial type fan with the reliable performance of a centrifugal fan. The 'tubular' inline design offers straight airflow suitable for horizontal or vertical duct mounting, as well as roof mounted exhaust and supply ventilation. The AXTC employs a specially designed non-overloading backward inclined airfoil wheel which allows air to flow with a minimum of turbulence and losses. This results in higher efficiencies and lower sound levels. Both wheel and casing are manufactured with high quality corrosion resistant resins and fiberglass reinforced. This innovative design has no metal in the airstream, for superior corrosion resistance and long life in corrosive atmospheres.

## M.K. PLASTICS QUALITY ASSURANCE

Each AXTC fan is statically and dynamically balanced to AMCA Standards 204-96 and test run with vibration measurements taken before shipment.

M.K. Plastics Corporation certifies that all AXTC models shown herein are licensed to bear the AMCA seal for air & sound. The ratings shown are based upon tests and procedures performed in accordance with AMCA Publication 211 and 311, and comply with the requirements of the AMCA Certified Ratings Program.



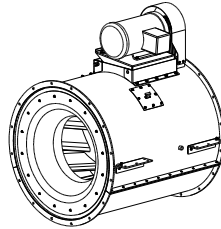


#### DESIGN AND CONSTRUCTION

- Twelve sizes are available, (in both belt and direct drive) - 1825 (18”) to 6000 (60”), with capacities from 2,800 to 70,000 CFM and up to 8” S.P.
- The AXTC impeller is backward inclined, airfoil, vinyl ester fiberglass reinforced, Class II of special design to facilitate the air flow through the casing with improved efficiency. It is tested for its integrity at a minimum 50% higher speed than the maximum stated catalog performance. The impeller is electronically 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.
- AXTC fans are manufactured with high quality, corrosion resistant resins and are fiberglass reinforced, able to withstand temperatures up to 210 deg. F., subject to the exhausted chemicals fumes and their concentrations. UV inhibitors are added to the resins and fans are flame retardant class 1 of 25 or less. The molded tubular split housings are smooth both exterior for aesthetic appearance and interior for streamlined airflow, are resistant to weather, salt spray and most chemicals.
- The tubular fan has an inner cylinder or chamber, rigidly constructed to support the fan sheaves, shaft and bearings which are completely out of the airstream.
- Straightening vanes serve two purposes: they give extra rigidity to the fan housing and reduce turbulence by straightening the airflow exiting the fan wheel, increasing efficiency.
- The ‘split’ casing will unbolt and separate, (one section only), in such a way as to gain easy access for maintenance to the shaft bearings and drive components. Impeller and shaft assembly removal can also be achieved. The split casing is designed to enable section removal in both horizontal, vertical and roof mounted positions without affecting the stability of the fan.
- There is no exposed metal in the exhaust airstream. All hardware is 304 stainless steel and completely encapsulated in fiberglass where exposed to the exhaust.
- Built in compliance with ASTM Standard D4167-97, for Fiber-Reinforced Plastic Fans and Blowers.
- A neoprene hub seal is standard on AXTC fans to minimize air leakage and is placed on the wheel hub. A Teflon seal is available for more severe environments.
- The standard blower shafts are carbon steel (C1045) and are turned, ground, polished and keyed at both ends. They are sized to operate well below critical speed. 304 or 316 stainless steel shafts are available when required, at an extra cost.
- AXTC fan bearings (belt drive) are heavy-duty, self-aligning, pillow block type, as standard. Bearings are selected for a minimum L-10 life of 100,000 hours at the maximum fan RPM.
- The motor mounting platform for arrangement #9 fans are exterior mounted on a fully adjustable base, supported by an external housing assembly. Motors may be direct or belt drive with standard T-frames with maximum frame sizes as shown on the catalog performance tables.

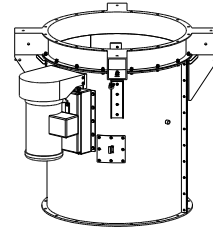


#### Horizontal Hanging

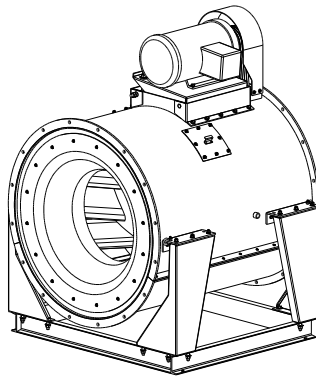


Side mounting brackets for horizontal ceiling hung applications. The brackets can be used with hanging vibration isolators.

#### Vertical Hanging



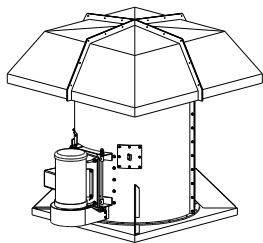
Mounting brackets for vertical base or vertical ceiling hung applications. Vibration isolators can be used in all mounting configurations.



#### Horizontal Mounting Base

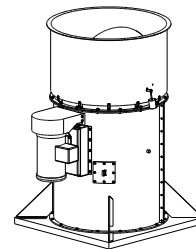
Mounting support legs attached to a support base provides a solid stand for floor, ceiling and wall mounting. The mounting base can be used with vibration isolators.

#### Curb Mounted Hooded Supply/Exhaust Fan

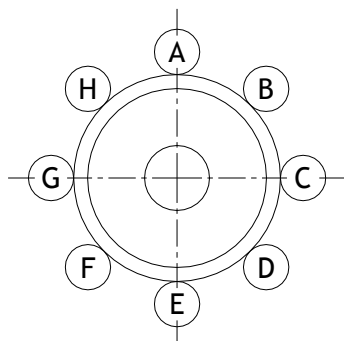


Complete with an FRP weather hood, can provide complete protection from the elements for both supply and exhaust operation.

#### Curb Mounted Exhaust Fan



Upblast configuration when used with optional butterfly damper and curb cap, can be mounted as a roof exhauster.



A— Standard motor positions for Horizontal Hanging & Foot Mount.

G, H, B, C— Motor positions available for Horizontal Ceiling Hung Fan.

F, E, D— Motor positions available for Horizontal Base Mount (from ceiling), or Horizontal Hanging.

#### AXTC 1825

Impeller DIA. [in] = 19.40"    Max Motor Frame = 215T    Max. Speed [RPM] = 2,754    Outlet Area [ft<sup>2</sup>] = 3.32

Flow	O.V.	STATIC PRESSURE, inches of water																	
		0.25		0.5		1		2		3		4		5		6		7	
CFM	FPM	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
3000	902	1265	0.65	1326	0.79	1444	1.09	1667	1.78	1879	2.54	2070	3.35	2245	4.21	2407	5.10	2567	6.04
3300	993	1379	0.84	1436	0.99	1547	1.31	1753	2.04	1947	2.84	2131	3.70	2303	4.61	2461	5.55	2607	6.52
3600	1083	1493	1.05	1545	1.21	1650	1.57	1838	2.32	2020	3.17	2201	4.09	2364	5.05	2520	6.03	2664	7.04
3900	1173	1609	1.31	1659	1.49	1755	1.86	1929	2.65	2105	3.54	2270	4.50	2432	5.51	2582	6.56	2723	7.61
4200	1263	1725	1.61	1771	1.79	1861	2.28	2029	3.03	2191	3.95	2344	4.94	2501	6.01	2647	7.10		
4500	1354	1841	1.95	1886	2.15	1970	2.56	2129	3.45	2279	4.41	2429	5.45	2570	6.53	2717	7.70		
4800	1444	1957	2.33	1999	2.54	2079	2.98	2232	3.92	2370	4.91	2517	6.00	2651	7.13				
5100	1534	2075	2.77	2115	3.00	2191	3.46	2335	4.44	2470	5.48	2605	6.60	2735	7.76				

#### AXTC 2225

Impeller DIA. [in] = 23.56"    Max Motor Frame = 256T    Max. Speed [RPM] = 2,268    Outlet Area [ft<sup>2</sup>] = 5.12

Flow	O.V.	STATIC PRESSURE, inches of water																	
		0.25		0.5		1		2		3		4		5		6		7	
CFM	FPM	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
3500	684	849	0.54	911	0.71	1029	1.09	1249	1.97	1438	2.93	1609	3.99	1770	5.13	1917	6.34	2061	7.51
4500	880	1057	1.00	1107	1.21	1203	1.66	1385	2.68	1557	3.82	1714	5.04	1857	6.30	1985	7.60	2120	9.04
5250	1026	1217	1.51	1262	1.75	1347	2.26	1506	3.38	1653	4.59	1805	5.95	1941	7.37	2070	8.81	2188	10.29
6000	1173	1377	2.17	1418	2.44	1494	3.00	1635	4.22	1773	5.56	1901	6.99	2035	8.54	2155	10.11		
6750	1320	1541	3.02	1577	3.32	1644	3.92	1776	5.27	1897	6.70	2017	8.22	2132	9.86	2251	11.57		
7500	1466	1703	4.05	1737	4.39	1798	5.05	1920	6.52	2029	8.03	2141	9.68	2250	11.42				
8250	1613	1867	5.31	1897	5.67	1957	6.44	2067	7.99	2170	9.62	2267	11.33						
9000	1760	2031	6.82	2059	7.21	2114	8.03	2214	9.67										

#### AXTC 2450

Impeller DIA. [in] = 25.94"    Max Motor Frame = 256T    Max. Speed [RPM] = 2,059    Outlet Area [ft<sup>2</sup>] = 5.98

Flow	O.V.	STATIC PRESSURE, inches of water																	
		0.25		0.5		1		2		3		4		5		6		7	
CFM	FPM	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
4000	668	733	0.56	792	0.76	905	1.20	1111	2.23	1288	3.38	1449	4.62	1595	5.96	1735	7.34	1867	8.69
5000	835	889	0.98	939	1.21	1029	1.71	1207	2.89	1370	4.20	1517	5.58	1649	7.05	1779	8.61	1901	10.27
6000	1003	1047	1.56	1089	1.83	1170	2.42	1323	3.73	1467	5.19	1605	6.76	1732	8.39	1849	10.08	1957	11.82
7000	1170	1207	2.37	1245	2.68	1317	3.35	1447	4.78	1576	6.35	1700	8.08	1820	9.87	1932	11.76	2041	13.71
8000	1337	1369	3.42	1403	3.79	1467	4.53	1585	6.09	1700	7.83	1811	9.66	1917	11.59	2026	13.63		
9000	1504	1531	4.76	1562	5.17	1620	5.99	1729	7.72	1829	9.54	1932	11.53	2032	13.63				
10000	1671	1695	6.43	1732	6.88	1777	7.80	1876	9.66	1970	11.64								
11000	1838	1859	8.45	1885	8.95	1933	9.92	2026	11.98										

Performance certified for installation Type B: free inlet/ducted outlet. Power rating (BHP) includes transmission losses. Performance data is based on standard air conditions 70°F (0.075 lbs/ft.3). Performance ratings do not include the effects of appurtenances (accessories).

#### AXTC 2700

Impeller DIA. [in] = 28.63"      Max Motor Frame = 284T      Max. Speed [RPM] = 1,866      Outlet Area [ft<sup>2</sup>] = 7.47

Flow	O.V.	STATIC PRESSURE, inches of water																	
		0.25		0.5		1		2		3		4		5		6		7	
CFM	FPM	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
6000	804	795	1.15	839	1.42	923	2.03	1088	3.47	1235	5.03	1370	6.72	1488	8.46	1609	10.39	1720	12.39
7000	937	911	1.69	951	2.01	1026	2.69	1170	4.25	1307	6.00	1432	7.85	1549	9.77	1657	11.80	1759	13.90
8000	1071	1031	2.43	1065	2.77	1135	3.55	1261	5.23	1382	7.08	1503	9.12	1614	11.25	1717	13.39	1814	15.62
9000	1205	1151	3.35	1183	3.75	1245	4.59	1359	6.40	1470	8.38	1576	10.55	1682	12.78	1782	15.15		
10000	1339	1271	4.48	1301	4.93	1357	5.84	1464	7.82	1564	9.94	1664	12.22	1757	14.63	1855	17.16		
11000	1473	1393	5.87	1421	6.38	1471	7.33	1570	9.45	1661	11.69	1755	14.14	1844	16.67				
12000	1607	1515	7.53	1539	8.03	1589	9.15	1679	11.37	1767	13.81	1847	16.29						
13000	1741	1637	9.47	1659	10.01	1705	11.19	1791	13.62										

#### AXTC 3000

Impeller DIA. [in] = 31.75"      Max Motor Frame = 284T      Max. Speed [RPM] = 1,682      Outlet Area [ft<sup>2</sup>] = 8.97

Flow	O.V.	STATIC PRESSURE, inches of water																	
		0.25		0.5		1		2		3		4		5		6		7	
CFM	FPM	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
9000	1003	857	2.36	891	2.76	957	3.64	1082	5.61	1197	7.74	1311	10.12	1414	12.55	1511	15.11	1601	17.77
10000	1114	943	3.11	974	3.55	1035	4.50	1147	6.58	1257	8.92	1364	11.44	1461	14.00	1557	16.79	1645	19.58
11000	1226	1031	4.04	1062	4.56	1117	5.57	1220	7.78	1323	10.26	1417	12.87	1514	15.63	1605	18.56		
12000	1337	1119	5.13	1147	5.68	1198	6.76	1297	9.17	1388	11.69	1482	14.54	1567	17.39	1657	20.49		
13000	1449	1209	6.45	1235	7.04	1283	8.21	1376	10.77	1459	13.42	1547	16.34	1629	19.39				
14000	1560	1297	7.93	1321	8.55	1368	9.86	1453	12.48	1535	15.36	1614	18.36						
15000	1672	1387	9.68	1409	10.33	1453	11.71	1535	14.55	1611	17.48								
16000	1783	1477	11.67	1497	12.33	1539	13.81	1614	16.70										

#### AXTC 3300

Impeller DIA. [in] = 34.94"      Max Motor Frame = 286T      Max. Speed [RPM] = 1,529      Outlet Area [ft<sup>2</sup>] = 10.86

Flow	O.V.	STATIC PRESSURE, inches of water																	
		0.25		0.5		1		2		3		4		5		6		7	
CFM	FPM	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
11000	1013	785	2.92	815	3.40	876	4.50	988	6.88	1094	9.54	1194	12.34	1288	15.33	1376	18.44	1457	21.65
12000	1105	851	3.70	879	4.22	936	5.39	1038	7.88	1138	10.70	1235	13.70	1326	16.89	1411	20.14	1491	23.49
13000	1197	915	4.56	943	5.15	995	6.38	1091	9.03	1185	11.93	1273	15.05	1364	18.43	1447	21.94	1526	25.48
14000	1289	983	5.64	1009	6.27	1057	7.56	1147	10.31	1235	13.37	1320	16.67	1403	20.12	1485	23.77		
15000	1381	1049	6.82	1073	7.48	1118	8.83	1205	11.78	1285	14.91	1367	18.32	1444	21.96	1523	25.71		
17000	1565	1183	9.73	1205	10.49	1245	11.98	1323	15.20	1397	18.68	1470	22.39						
19000	1749	1317	13.36	1337	14.22	1374	15.89	1444	19.37	1514	23.22								
21000	1933	1451	17.80	1469	18.74	1503	20.58												

Performance certified for installation Type B: free inlet/ducted outlet. Power rating (BHP) includes transmission losses. Performance data is based on standard air conditions 70°F (0.075 lbs/ft.3). Performance ratings do not include the effects of appurtenances (accessories).

#### AXTC 3650

Impeller DIA. [in] = 38.68"      Max Motor Frame = 286T      Max. Speed [RPM] = 1,381      Outlet Area [ft<sup>2</sup>] = 13.30

Flow	O.V.	STATIC PRESSURE, inches of water																	
		0.25		0.5		1		2		3		4		5		6		7	
CFM	FPM	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
15000	1128	743	3.68	769	4.34	824	5.82	926	8.95	1023	12.45	1114	16.13	1197	20.00	1279	24.01	1353	28.06
16000	1203	789	4.36	815	5.11	862	6.55	961	9.90	1056	13.58	1144	17.44	1226	21.52	1303	25.66	1376	29.83
17000	1278	835	5.13	859	5.90	905	7.49	997	10.92	1088	14.70	1173	18.77	1253	22.94	1326	27.25		
18000	1353	883	6.05	905	6.83	945	8.39	1035	12.02	1123	16.02	1203	20.16	1282	24.54	1355	29.04		
19000	1429	929	7.00	951	7.86	989	9.48	1076	13.33	1156	17.32	1235	21.61	1311	26.21				
21000	1579	1023	9.28	1041	10.13	1080	12.09	1156	16.11	1229	20.42	1303	24.98	1373	29.75				
23000	1729	1115	11.90	1135	13.01	1168	14.96	1238	19.37	1306	23.88	1373	28.81						
25000	1880	1209	15.10	1227	16.26	1259	18.45	1320	23.04										

#### AXTC 4025

Impeller DIA. [in] = 42.63"      Max Motor Frame = 324T      Max. Speed [RPM] = 1,254      Outlet Area [ft<sup>2</sup>] = 16.13

Flow	O.V.	STATIC PRESSURE, inches of water																	
		0.25		0.5		1		2		3		4		5		6		7	
CFM	FPM	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
17000	1054	633	3.74	659	4.53	711	6.18	811	9.88	903	13.93	985	18.15	1064	22.56	1138	27.17	1209	32.05
19000	1178	701	4.99	725	5.87	771	7.67	861	11.61	947	15.97	1029	20.64	1103	25.48	1173	30.32	1241	25.44
21000	1302	771	6.57	793	7.54	833	9.46	914	13.59	997	18.33	1070	23.14	1144	28.36	1211	33.72		
23000	1426	841	8.46	859	9.39	897	11.55	973	16.01	1047	20.92	1120	26.22	1188	31.69	1253	37.27		
25000	1550	911	10.68	929	11.77	962	13.92	1032	18.69	1100	23.91	1170	29.48	1235	35.31				
27000	1674	981	13.25	997	14.37	1029	16.75	1095	21.96	1159	27.40	1220	33.01						
29000	1798	1051	16.21	1067	17.49	1097	20.03	1154	25.23	1217	31.10								
31000	1922	121	19.58	1135	20.85	1165	23.70	1217	29.15										

#### AXTC 4450

Impeller DIA. [in] = 47.13"      Max Motor Frame = 365T      Max. Speed [RPM] = 1,134      Outlet Area [ft<sup>2</sup>] = 20.17

Flow	O.V.	STATIC PRESSURE, inches of water																	
		0.25		0.5		1		2		3		4		5		6		7	
CFM	FPM	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
19000	962	527	3.61	553	4.53	604	6.41	700	10.65	788	15.33	867	20.23	941	25.38	1009	30.67	1076	36.28
21500	1088	591	5.00	613	5.96	659	8.06	747	12.69	826	17.60	903	23.08	973	28.65	1038	34.26	1101	40.34
24000	1215	655	6.71	675	7.77	715	10.03	794	14.97	870	20.34	941	26.04	1009	32.20	1076	38.54	1132	44.67
26200	1326	711	8.49	729	9.60	765	12.04	838	17.21	911	23.03	976	28.97	1044	35.59	1105	42.29		
28400	1437	767	10.56	785	11.84	818	14.41	888	20.08	953	26.02	1017	32.35	1079	39.21				
30600	1549	825	13.09	841	14.40	871	17.05	935	22.96	997	29.42	1059	36.10	1117	43.14				
32800	1660	881	15.82	897	17.31	927	20.30	986	26.52	1044	33.13	1100	40.00						
35000	1771	939	19.11	953	20.58	981	23.71	1033	29.96	1091	37.14								

Performance certified for installation Type B: free inlet/ducted outlet. Power rating (BHP) includes transmission losses. Performance data is based on standard air conditions 70°F (0.075 lbs/ft.3). Performance ratings do not include the effects of appurtenances (accessories).

#### AXTC 4900

Impeller DIA. [in] = 51.88"    Max Motor Frame = 404T    Max. Speed [RPM] = 1,034    Outlet Area [ft<sup>2</sup>] = 23.94

Flow	O.V.	STATIC PRESSURE, inches of water																	
		0.25		0.5		1		2		3		4		5		6		7	
CFM	FPM	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
21000	877	441	3.48	467	4.50	515	6.57	611	11.52	694	16.91	767	22.29	838	28.37	903	34.50	964	40.98
23000	961	479	4.39	501	5.43	548	7.74	635	12.85	714	18.43	788	24.54	855	30.76	917	37.10	979	44.13
25000	1044	517	5.45	537	6.53	580	8.96	664	14.50	738	20.31	809	26.85	873	33.22	935	40.17	991	47.04
27000	1128	555	6.66	575	7.90	615	10.51	691	16.13	764	22.49	832	29.15	894	36.13	953	43.10	1009	50.49
29000	1211	593	8.04	611	9.30	647	12.00	720	18.05	788	24.42	855	31.58	914	38.68	973	46.43	1029	54.19
32000	1337	651	10.53	667	11.87	699	14.82	767	21.32	832	28.32	891	35.59	950	43.33	1007	51.73		
36000	1504	727	14.46	743	16.11	773	19.47	833	26.48	888	33.78	947	41.93	1000	50.27				
40000	1671	805	19.49	819	21.24	845	24.73	898	32.27	953	40.68	1003	48.97						

#### AXTC 5425

Impeller DIA. [in] = 57.44"    Max Motor Frame = 405T    Max. Speed [RPM] = 930    Outlet Area [ft<sup>2</sup>] = 29.34

Flow	O.V.	STATIC PRESSURE, inches of water																	
		0.25		0.5		1		2		3		4		5		6		7	
CFM	FPM	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
29000	988	443	5.73	463	707.00	505	10.01	582	16.39	653	23.45	717	30.92	776	38.47	832	46.65	888	55.30
32000	1090	485	7.41	503	8.83	541	11.98	611	18.64	679	26.30	741	34.30	799	42.69	853	51.14	903	59.90
35000	1193	527	9.39	545	11.05	577	14.20	644	21.54	707	29.44	767	37.95	823	47.02	873	55.69	923	64.96
38000	1295	571	11.89	585	13.39	615	16.89	676	24.44	738	33.05	794	42.02	847	51.15	897	60.88		
41000	1397	613	14.57	627	16.28	655	20.05	714	28.28	770	37.10	823	46.35	873	55.90	923	66.21		
44000	1499	655	17.62	669	19.57	695	23.50	748	31.83	800	41.11	853	51.00	900	60.98				
47000	1602	699	21.73	711	23.26	737	27.67	786	36.39	835	46.01	885	56.38						
50000	1704	741	25.28	753	27.39	777	31.91	824	41.35	870	51.13	917	62.11						

#### AXTC 6000

Impeller DIA. [in] = 63.59"    Max Motor Frame = 444T    Max. Speed [RPM] = 840    Outlet Area [ft<sup>2</sup>] = 35.95

Flow	O.V.	STATIC PRESSURE, inches of water																	
		0.25		0.5		1		2		3		4		5		6		7	
CFM	FPM	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
39000	1085	437	9.08	453	10.79	487	14.58	551	22.78	611	31.88	667	41.62	720	51.92	770	62.51	814	72.94
42000	1168	467	10.91	483	12.85	512	16.56	573	25.30	632	35.11	688	45.60	738	56.43	785	67.09	829	78.02
45000	1252	499	13.24	513	15.16	541	19.28	598	28.47	653	38.27	707	49.40	757	60.81	801	72.13		
48000	1335	529	15.59	543	17.73	569	22.12	624	31.76	676	42.02	726	53.32	776	65.40	820	77.33		
51000	1419	561	18.52	575	20.92	599	25.42	651	35.51	700	46.23	747	57.47	794	69.95	838	82.41		
54000	1502	593	21.80	605	24.08	629	29.02	677	39.30	723	50.48	770	62.38	814	75.07				
57000	1585	625	25.45	637	27.97	659	32.95	705	43.84	748	55.14	794	67.83	838	81.24				
60000	1669	655	29.03	667	31.79	689	37.21	733	48.70	776	60.82	817	73.29						

Performance certified for installation Type B: free inlet/ducted outlet. Power rating (BHP) includes transmission losses. Performance data is based on standard air conditions 70°F (0.075 lbs/ft.3). Performance ratings do not include the effects of appurtenances (accessories).

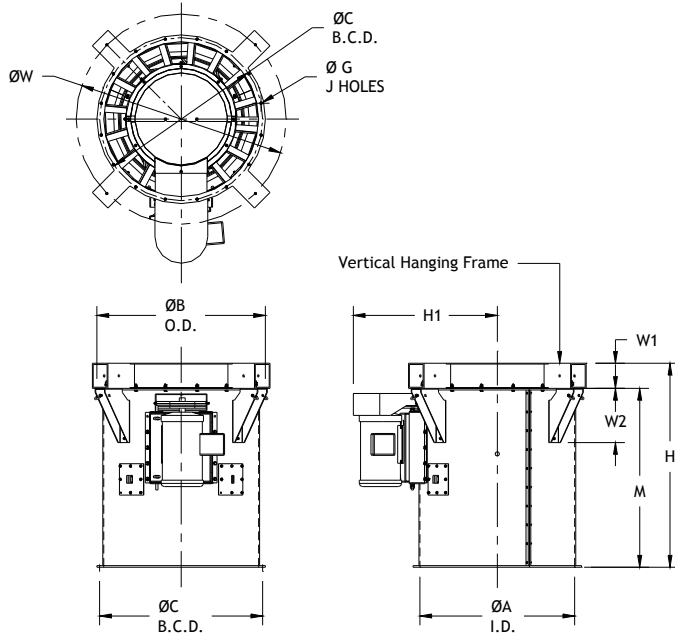




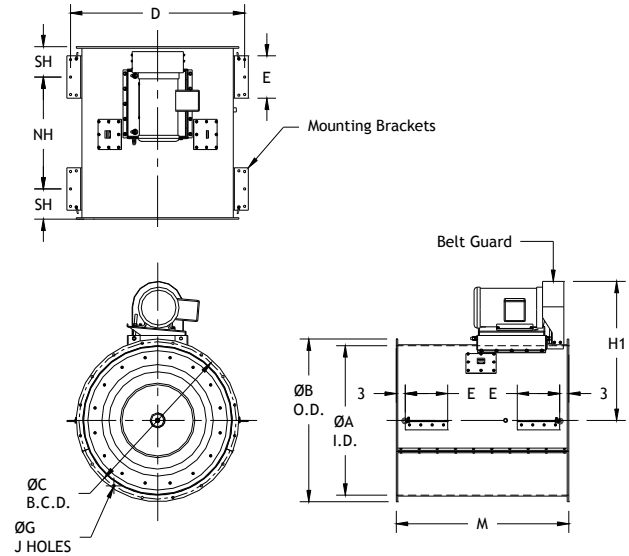


### TUBULAR INLINE CENTRIFUGAL FIBERGLASS FAN

#### Vertical-Hanging



#### Horizontal-Hanging

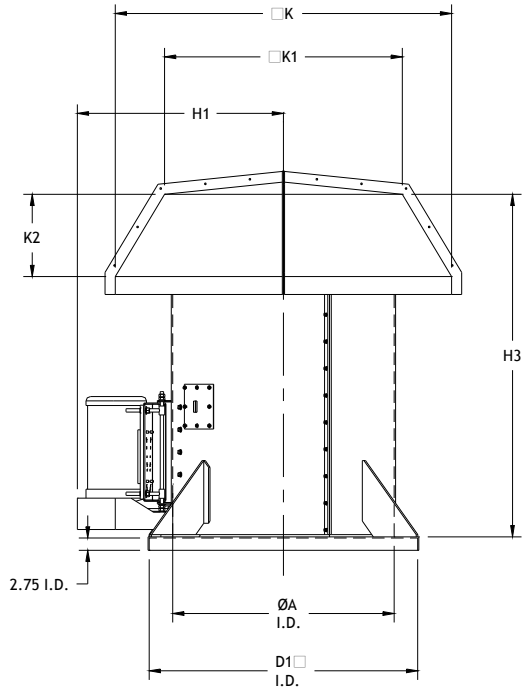


Fan Size	A	B	C	D	E	G	H	H1	J	M	NH	SH	W	W1	W2
1825	24.69	28.00	26.75	32.69	8.00	0.56	40.63	28.53	12.00	35.63	21.63	7.00	34.00	5.00	11.00
2225	30.06	33.38	32.13	38.06	9.00	0.81	48.00	31.50	12.00	43.00	28.00	7.50	39.50	5.00	12.00
2450	33.13	36.38	35.13	41.13	11.00	0.81	52.13	33.50	12.00	47.13	30.13	8.50	44.00	5.00	14.00
2700	36.50	39.75	38.50	44.63	13.00	0.81	57.75	36.88	12.00	51.75	32.75	9.50	49.50	6.00	16.00
3000	40.56	44.88	43.13	48.69	14.00	0.81	63.31	40.53	16.00	57.31	37.31	10.00	55.00	6.00	17.00
3300	44.63	49.00	47.25	52.75	15.00	0.81	69.81	44.06	16.00	62.81	41.81	10.50	61.00	7.00	18.00
3650	49.38	53.75	52.00	57.50	14.00	0.81	64.00	45.94	16.00	57.00	37.00	10.00	67.00	7.00	17.00
4025	54.38	59.75	57.50	64.50	15.00	0.81	69.63	48.75	16.00	62.63	41.63	10.50	74.00	7.00	18.00
4450	60.19	65.50	63.25	72.44	16.00	0.81	76.94	52.75	16.00	68.94	46.94	11.00	82.00	8.00	19.00
4900	66.25	71.63	69.38	78.38	17.00	0.81	83.75	57.13	24.00	75.75	52.75	11.50	90.00	8.00	20.00
5425	73.38	79.75	77.00	85.63	18.00	0.81	92.69	61.00	24.00	83.69	59.69	12.00	100.00	9.00	21.00
6000	81.19	87.50	84.75	93.44	20.00	0.81	102.44	64.91	24.00	92.44	66.44	13.00	111.00	10.00	23.00

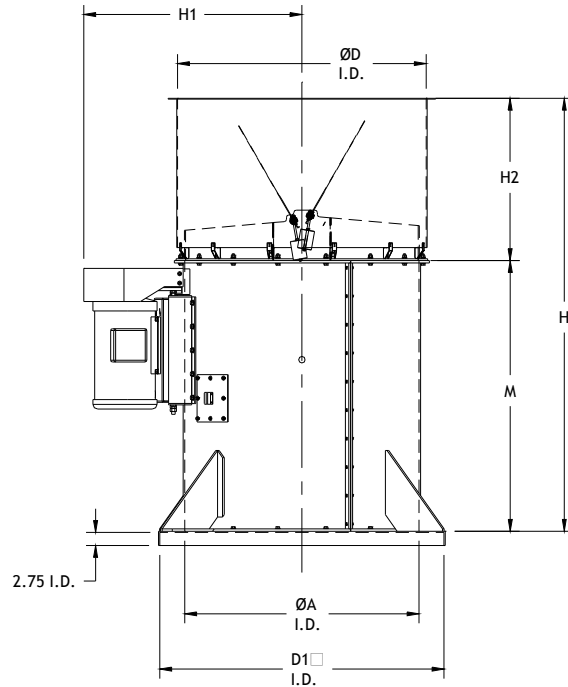
Dimensions are subject to change. Certified prints are available.  
(Arrangement #9 Belt Drive shown, arrangement #4 Direct Drive similar, consult factory for certified dimensions)

### TUBULAR INLINE CENTRIFUGAL FIBERGLASS FAN

**Curb Mounted Supply Fan**  
(with FRP Weather Hood)



**Curb Mounted Exhaust Fan**  
(with FRP Discharge Damper)



Fan Size	A	D	D1	H	H1	H2	H3	K	K1	K2	M
1825	24.69	28.00	34.88	55.13	28.53	19.50	49.63	37.00	28.00	14.00	35.63
2225	30.06	33.31	40.38	68.00	31.50	25.00	58.00	45.00	35.00	15.00	43.00
2450	33.13	37.00	43.38	73.32	33.50	26.19	64.13	50.00	38.00	17.00	47.13
2700	36.50	40.75	46.75	79.94	36.88	28.19	70.75	55.00	42.00	19.00	51.75
3000	40.56	45.00	51.00	86.31	40.53	29.00	78.31	61.00	46.00	21.00	57.31
3300	44.63	49.00	55.13	95.00	44.06	32.19	86.81	67.00	50.00	24.00	62.81
3650	49.38	53.00	59.88	91.19	45.94	34.19	83.00	75.00	54.00	26.00	57.00
4025	54.38	58.25	64.88	99.01	48.75	36.38	89.63	82.00	60.00	27.00	62.63
4450	60.19	64.25	69.63	108.32	52.75	39.38	96.94	90.00	66.00	28.00	68.94
4900	66.25	69.50	78.00	120.75	57.13	45.00	104.75	100.00	72.00	29.00	75.75
5425	73.38	76.63	88.75	133.69	61.00	50.00	112.69	110.00	80.00	29.00	83.69
6000	81.19	84.38	98.88	147.44	64.91	55.00	122.44	120.00	88.00	30.00	92.44

Dimensions are subject to change. Certified prints are available.  
(Arrangement #9 Belt Drive shown, arrangement #4 Direct Drive similar, consult factory for certified dimensions)

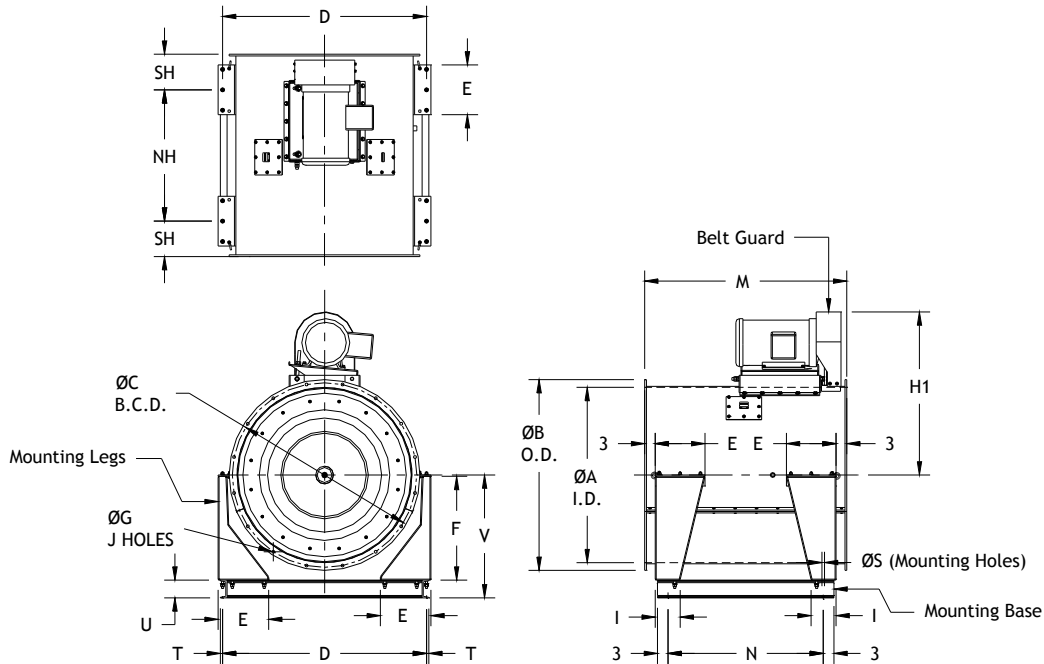
**Minimum CFM Required to Open Dampers**

Fan Size	1825	2225	2450	2700	3000	3300	3650	4025	4450	4900	5425	6000
Min. CFM	2,572	3,134	4,770	6,387	7,103	8,492	10,667	13,150	15,876	18,498	23,576	28,745



### TUBULAR INLINE CENTRIFUGAL FIBERGLASS FAN

#### Horizontal Base Mounted (with Mounting Legs & Base)



Fan Size	A	B	C	D	E	F	G	H1	I	J	M	N	S	T	U	V
1825	24.69	28.00	26.75	32.69	8.00	16.00	0.56	28.53	5.00	12.00	35.63	22.38	0.56	0.64	5.00	21.25
2225	30.06	33.38	32.13	38.06	9.00	18.50	0.81	31.50	6.00	12.00	43.00	29.75	0.56	0.64	5.00	23.75
2450	33.13	36.38	35.13	41.13	11.00	20.00	0.81	33.50	6.00	12.00	47.13	33.88	0.56	0.64	5.00	25.25
2700	36.50	39.75	38.50	44.63	13.00	23.00	0.81	36.88	7.00	12.00	51.75	38.50	0.56	0.64	5.00	28.38
3000	40.56	44.88	43.13	48.69	14.00	25.00	0.81	40.53	7.00	16.00	57.31	44.06	0.56	0.64	5.00	30.38
3300	44.63	49.00	47.25	52.75	15.00	27.00	0.81	44.06	7.50	16.00	62.81	49.56	0.75	0.64	5.00	32.38
3650	49.38	53.75	52.00	57.50	14.00	29.25	0.81	45.94	7.00	16.00	57.00	43.75	0.75	0.64	5.00	34.63
4025	54.38	59.75	57.50	64.50	15.00	33.00	0.81	48.75	7.50	16.00	62.63	49.38	0.75	0.64	5.00	38.50
4450	60.19	65.50	63.25	72.44	16.00	35.00	0.81	52.79	8.00	16.00	68.94	56.63	0.75	1.09	8.00	43.50
4900	66.25	71.63	69.38	78.38	17.00	39.00	0.81	57.13	8.50	24.00	75.75	63.44	0.75	1.09	8.00	47.50
5425	73.38	79.75	77.00	85.63	18.00	42.00	0.81	61.00	9.00	24.00	83.69	71.38	0.75	1.09	8.00	50.50
6000	81.19	87.50	84.75	93.44	20.00	46.00	0.81	64.91	10.00	24.00	92.44	80.19	0.75	1.09	8.00	54.50

Dimensions are subject to change. Certified prints are available.  
(Arrangement #9 Belt Drive shown, arrangement #4 Direct Drive similar, consult factory for certified dimensions)

#### **BELT GUARD/MOTOR COVER**

A Belt Guard (standard) is designed to cover the belts and guards outside the fan housing. Belt guards are constructed of FRP and are factory installed. Also available is a motor cover for outdoor application. Cover is vented.

#### **GRAPHITE IMPREGNATION**

A graphite liner may be laminated to the inside of the fan casing to remove any build up of static electricity when handling potentially explosive gases. The gas-stream surfaces are grounded to the outside of the fan casing.

#### **INLET AND OUTLET GUARDS**

Screens available in PVC and 304 stainless steel to prevent debris from entering the fan and to protect personnel.

#### **COMPANION FLANGE AND SLEEVE**

Pre-drilled FRP mating flange with a 2" sleeve, for use with a flexible connection at both inlet and outlet of fan.

#### **FLEXIBLE CONNECTORS**

A high pressure ribbed 'Plastifer' vinyl compound (FPVC) flexible connector is available 6" wide, to suit both inlet and outlet fan dimensions. It is corrosion resistant to acid and base effluents. Due to its UV inhibitors, it is suitable for outdoor applications. The fastening straps are in stainless steel. A heavy duty glass fabric flexible connector is also offered for severe corrosive exhaust, and higher temperature applications.

#### **DISCONNECT SWITCHES**

A wide selection of NEMA rated fusible, or non-fusible disconnect switches, mounted to the fan motor, if required.

#### **STAINLESS STEEL SHAFTS**

304 and 316 stainless steel shafts are available on all AXTC fan sizes, where possible corrosion on standard carbon steel shafts may be of concern.

#### **DAMPERS & WEATHER HOOD**

Single/multiple blade gravity or control type dampers for both inlet and outlet of fan. Manufactured in either PVC or FRP. For up-blast roof exhausting, an FRP butterfly damper to provide weather tight closure for vertical air discharge, is available. When required, the AXTC fan can be supplied with a fiberglass weather hood where used for supply air.

#### **VIBRATION ISOLATORS**

Horizontal or vertical mounting supports allow for hanging spring or rubber-in-shear vibration isolators. Standard isolators available for floor mounted units with mounting feet.

#### **MOUNTING BASE**

Bolted to the casing side mounting brackets, mounting base allow positioning of the AXTC fan on the floor, ceiling, wall or platform. Can be used with vibration isolators. Epoxy coated steel construction.

#### **ROOF CURBS**

A wide variety of prefabricated roof curbs are available in either fiberglass or galvanized steel for roof mounted applications with rigid interior insulation and pressure treated wood nailer strip. All curbs are flanged for roof attachment. Curbs for sloping/pitched roofs and sound absorbing curbs are also offered, as required.

## TUBULAR INLINE CENTRIFUGAL FIBERGLASS FAN

### PART 1 GENERAL

#### 1.01 WORK INCLUDED

- A. Fiberglass Reinforced Plastic (FRP), inline centrifugal fan.

#### 1.02 RELATED WORK

- A. All sections, drawing plans, specifications and contract documents.

#### 1.03 REFERENCES

- A. AMCA -99 Standards Handbook
- B. AMCA 210 - Laboratory Methods of Testing Fans for Rating Purposes.
- C. AMCA 211 - Certified Ratings Procedure.
- D. AMCA 300 - Test Code for Sound Rating Air Moving Devices.
- E. AMCA 311 - Certified Sound Ratings Program for Air Moving Devices.
- F. AFMBA - Method of Evaluating Load Ratings of Bearings (ASA - B3.11).
- G. AMCA 204 - Balance Quality and Vibration Levels for Fans.
- H. ASTM D4167-97 - Standard Specification for Fiber-Reinforced Plastic Fans and Blowers.

#### 1.04 QUALITY ASSURANCE

- A. Fans shall be tested in accordance with AMCA Standards 210 and 300, and performance ratings shall be submitted in conformance to AMCA Publications 211 and 311. Fans must be Licensed to bear the AMCA Certified Ratings Seal for Sound and Air Performance. Acceptable manufacturers whose equipment is not licensed to bear the AMCA Certified Ratings Seal for Sound and Air Performance must submit air and sound performance tests conducted in accordance with AMCA Standards 210 and 300, in a registered AMCA test facility, and certified for accuracy (stamped) by a registered professional engineer.
- B. Classification for Spark Resistant Construction; Conform to AMCA 99.
- C. Each fan shall be tested before shipping. Motors to be tested for amperage drawn.
- D. A certificate to be supplied with each fan as to quality control before shipping and compliance to specifications.

#### 1.05 SUBMITTALS

- A. Provide dimensional drawings and product data on each fan assembly.
- B. Provide fan curves for each fan at the specified operation point, with the flow, static pressure and horsepower clearly plotted.
- C. Provide inlet sound power readings for the eight octave bands.

### PART 2 PRODUCTS

#### 2.01 GENERAL

- A. Performance is based at standard conditions (density 0.075 Lb/ft<sup>3</sup>).
- B. Fans selected shall be capable of accommodating static pressure and flow variations of +/-15% of scheduled values.
- C. Each fan shall be belt drive arrangement #9 or direct drive arrangement #4 in AMCA arrangements as stated in the specs or on the drawings.
- D. Fasteners to be 304 stainless steel.

#### 2.02 FAN HOUSING

- A. Fan housing shall be of FRP tubular 'split' design, in which shaft and drives are protected from the corrosive, contaminated air stream. Housing as well as air inlet shall be aerodynamically designed for high-efficiency, engineered to reduce incoming air turbulence. Housings shall be resin rich to be smooth exterior and interior.

- B. Fan housing shall be manufactured in specifically formulated resins, for maximum corrosion resistance, UV inhibited and reinforced with fiberglass for structural strength. Fastening bolts holding the casing to the support plate are to be encapsulated in FRP. No uncoated metal fan parts in the corrosive air stream will be tolerated. Minimum casing wall thickness to be 1/4" on AXTC 1825-2450, 5/16" on AXTC 2700-4900 and 3/8" on AXTC 5425-6000. Fans to be supplied with an internal graphite liner and grounding strap, (when specified), to remove static electricity. Flame retardancy of 25 or less, is standard.
- C. Fan inlet & outlet to be flanged, minimum thickness 3/8". Flange drilling to be MK Plastics standard size hole pattern.
- D. Split housing design to give easy access for impeller inspection and service.
- E. Shaft seal to be neoprene or Teflon (when specified).
- F. AXTC fans shall be supplied with horizontal or vertical mounting brackets, as stated and shown on the plans and specifications.
- G. Roof mounted exhaust fans shall be supplied with FRP curb caps and FRP discharge butterfly dampers, according to drawings, and shown on the plans and specifications.
- H. Roof mounted supply fans shall be supplied with FRP curb caps and FRP weather hood, according to drawings, and shown on the plans and specifications
- I. Finish color to be MK Plastics light gray.

#### 2.03 FAN IMPELLER

- A. Impellers shall be centrifugal backward inclined, airfoil, vinyl ester fiberglass reinforced, Class II, specially designed to facilitate the flow through the casing for improved efficiency.
- B. The impellers shall be electronically balanced both statically and dynamically 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. and conform to ASTM Standard D-4167.

#### 2.04 FAN MOTORS AND DRIVE

- A. Motors to be standard efficiency, standard NEMA frame, 1800 RPM (Belt Drive) or 900, 1200, or 1800 RPM (Direct Drive), TEFC with a 1.15 service factor.
- B. A factory mounted NEMA 3R disconnect switch can be provided for each fan, if indicated on the schedule.
- C. Belt drive units shall have belts and sheaves sized for 120% of the fan operating brake horsepower, and shall be readily and easily accessible for service.
- D. Drives up to 5 HP shall be provided with variable pitch sheave.
- E. Shaft to be ANSI C-1045 steel, and be protected with TECTYL 822B protective coating. The shaft shall not be in the corrosive air stream. 304 or 316 stainless steel shafts are available (when specified).
- F. Belt driven AXTC fans shall have heavy duty, precision, bearings sized for L10 - 100,000 hours. Bearings shall be ball or spherical pillow block type, sealed to retain lubricant and exclude dust and air. Bearings shall have extended lube lines to allow for lubrication.
- G. FRP belt drive guards are standard. Motor covers are optional if required, as per the specifications.
- H. Bearing lubrication lines shall be extended to the exterior of the unit, on belt drive application.

#### 2.05 ACCEPTABLE MANUFACTURERS

- A. M. K. Plastics Corporation, model AXTC tubular inline centrifugal fiberglass fan.
- B. Approved equal.



## CONDITIONS OF SALE

1. Prices quoted are current, prices prevailing at time of shipping will apply. Material in stock is offered subject to prior sale. All Sales Contracts arising out of this quotation shall be subject to our regular conditions show on this side.

2. All deliveries quoted are based on availability of material and labor at the time of quotation and subject to change. Deliveries are contingent upon strikes, accidents, fires, and other causes and we shall not be liable for any loss or damage caused by delays beyond the control of the company.

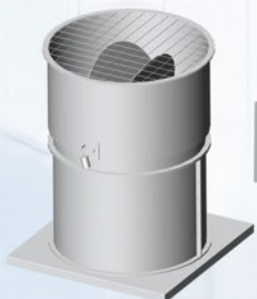
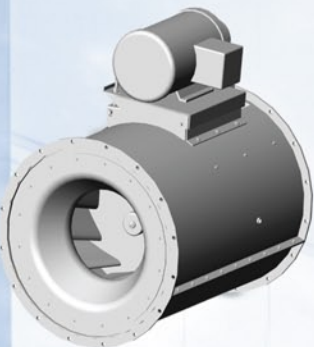
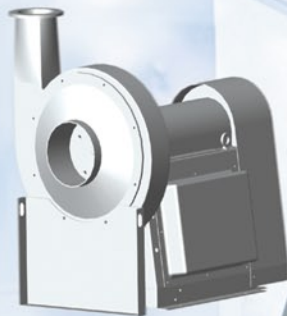
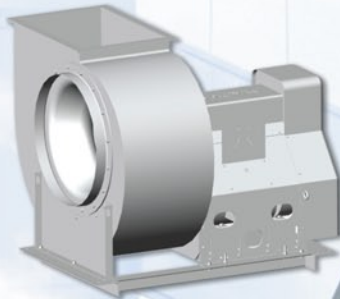
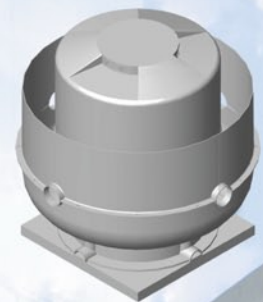
3. Goods invoiced up to and including the last day of the calendar month shall be paid for not later than the last business day of the following month. The company reserves the right to charge interest at commercial rates on any overdue account. Any order accepted by us cannot be countermanded, revised or cancelled without our written consent and upon such terms as will indemnify us against any loss. The word "loss" as used herein shall include, but not limited to, cost of materials, special machinery, tools, jigs and fixtures built or purchased for the contract and all parts in process, fabricated in whole or in part by previous customer authorization.

5. No contract arising from the acceptance of this quotation shall be valid and binding until approved by the company, such contract shall be governed by and interpreted in accordance with the laws of Province of Quebec.

6. All memoranda, drawings and information furnished by the company shall remain its property and shall be considered business or trade secrets received in trust and confidence for the sole purpose of assisting the buyer.

7. Orders to customer's drawings or descriptions are filled with the understanding that the customer assumes the obligation to protect M.K. Plastics Corp. from any action for infringements of patents.

8. No modification of the above conditions of sale shall be effected by our receipt or acknowledgement of a purchase order containing additional or different conditions.



## LIMITATION OF WARRANTY AND LIABILITY

We will not be responsible for the damage to equipment or materials through improper installation, storage, improper servicing, or through attempts to operate it in excess of its rated capacity or recommended use, intentional or otherwise. We will not be responsible for consequential damage.

Based on the fact that M.K. Plastics Corp. has no direct control over the actual handling and use of its products in the field, M.K. Plastics Corp. does not assume any liability for any loss of customer or any personnel or any physical damages claimed by anyone due to a failure or cause attributed to the use of its products. In no event shall M.K. Plastics Corp. be responsible for consequential damages of any such defective material or workmanship, including but not limited to the buyer's loss of material or profit, increased expense of operation, downtime or reconstruction of the work and in no event shall M.K. Plastics Corp. obligation under this warranty exceed the original contract price of the defective item.

M.K. Plastics Corp. warrants its equipment, products and parts, to be free from defects in workmanship and material under normal use and service for one (1) year after delivery to the first user. Our obligation under this warranty being limited to repairing or replacing, at our option, without cost at our factory any part, or parts which shall, within such warranty period, be returned to us with transportation charges prepaid, and which our examination shall disclose to our satisfaction to have been defective.

M.K. Plastics Corp. will not be responsible for the cost of removal of a defective product or parts or the installation of a replaced product or parts, or for costs due for its removal, crating or shipping.

On account of variables including but not limited to, vibration, system noise characteristics, motor overloading or change in voltage conditions, the specifics of customer application of equipment or other system conditions, M.K. Plastics Corp. does not expressly warrant its equipment for any specific purpose.

The customer and its agents are responsible for the selection and application of M.K. Plastics Corp. products, including their fitness for the purpose and performance intended. Consequently, the customer on behalf of its agents assumes all liability related to the user/misuse, application and selection of the M.K. Plastics Corp.

**M.K. Plastics**  
CORPORATION

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