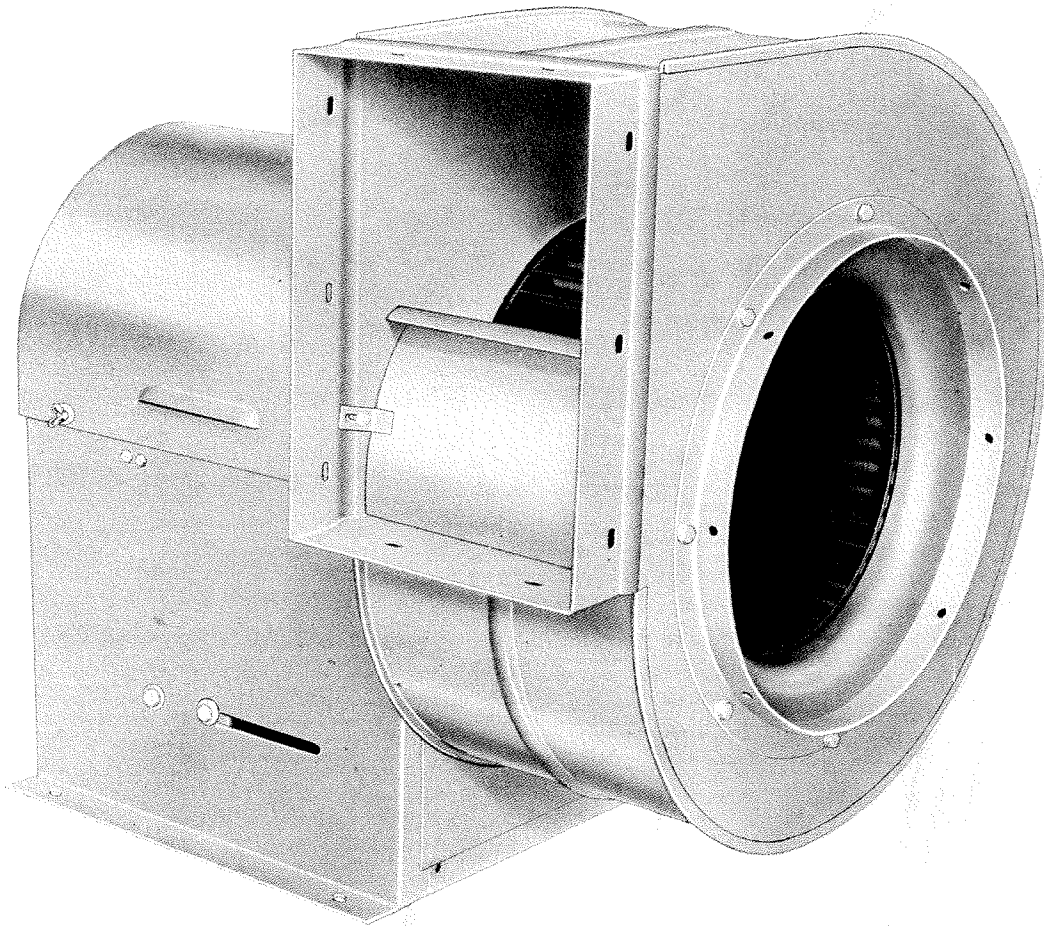


AIR HANDLING

# UTILITY FANS

FORWARD CURVED, BACKWARD INCLINED

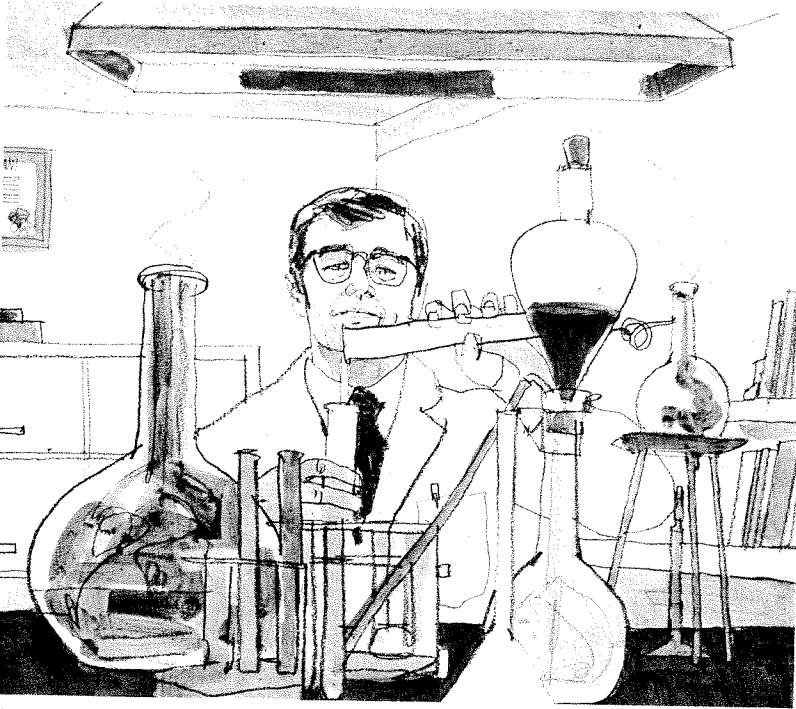
DS FAN-3  
MAR 78



# FC & BI FANS

**TRANE**<sup>®</sup>  
AIR CONDITIONING

# Trane utility fans - rugged design for efficient service



Trane Utility Fans are used in applications requiring quiet, efficient and economical operation. Trane utility fans are designed and engineered to meet a wide variety of ventilating needs — in commercial, industrial and institutional buildings. With its rugged design and a full range of accessories, the utility fan is adaptable to many job situations.

Utility fans meet the demanding AMCA Standard 210 and are licensed to bear the AMCA Certified Ratings Seal. This seal assures the fans will perform according to catalog data.

## THE COMPLETE UTILITY FAN LINE

### Sizes

- 4 through 9-inch wheel diameter, forward curved, direct-drive
- 10 through 15-inch wheel diameter, backward inclined, direct-drive
- 9 through 22-inch wheel diameter, forward curved, belt-drive
- 10 through 22-inch wheel diameter, backward inclined, belt-drive

### Volume

- 150 to 8,500 cfm at 0 to 3 inches water gauge

### Discharge

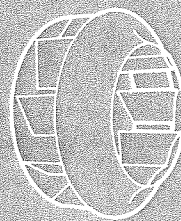
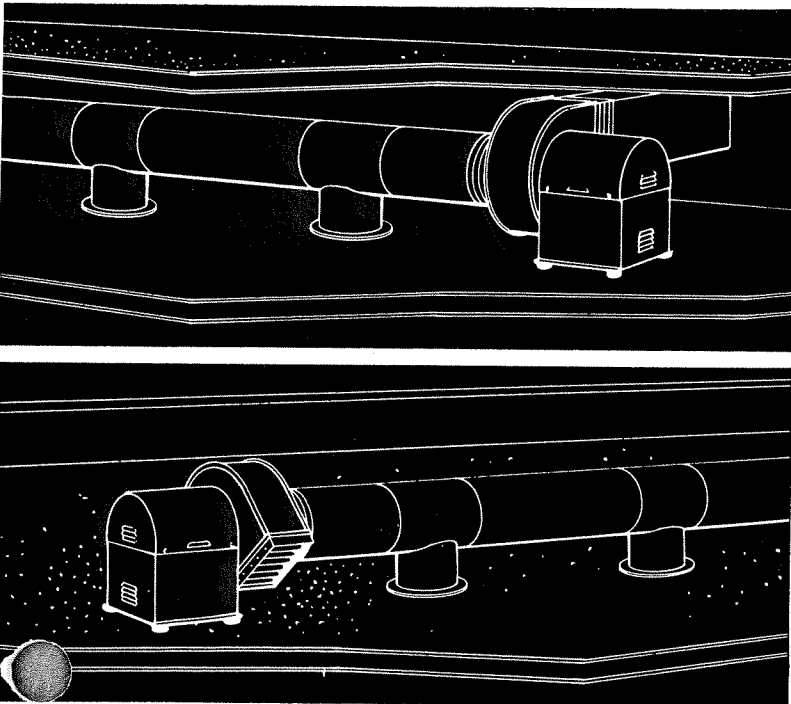
- Fan discharge is convertible to eight standard positions, clockwise or counterclockwise rotation on sizes 22 and smaller.

### Common Applications

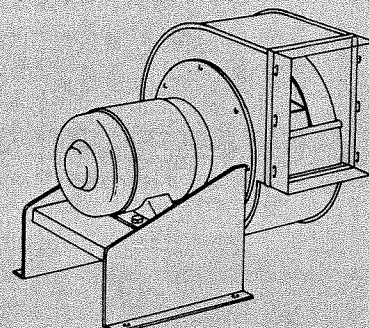
- Schools
- Factories
- Hospitals
- Kitchens
- Washrooms
- Laboratories
- Restrooms
- Laundries
- Stores



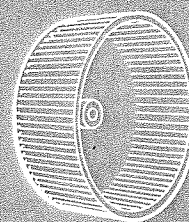
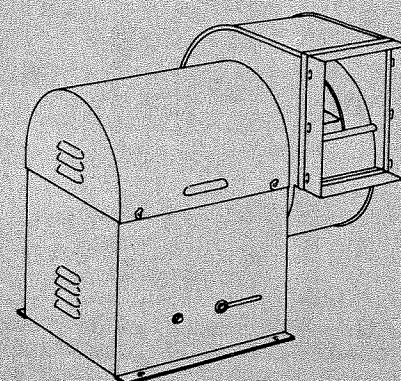
The Trane Company certifies that the units shown herein are licensed to bear the AMCA Seal. The ratings shown are based on tests made in accordance with AMCA Standard 210 and comply with the requirements of the AMCA Certified Ratings Program.



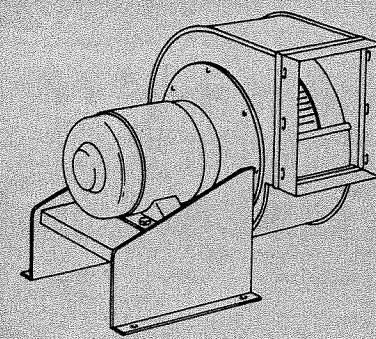
BI Direct-Drive



BI Belt-Drive



FC Direct-Drive



FC Belt-Drive

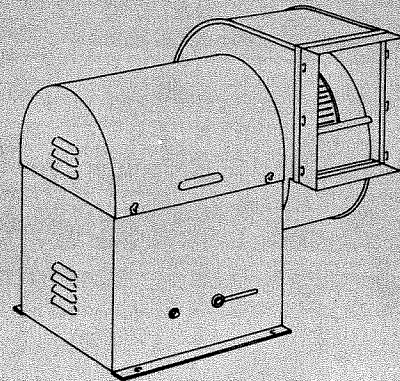


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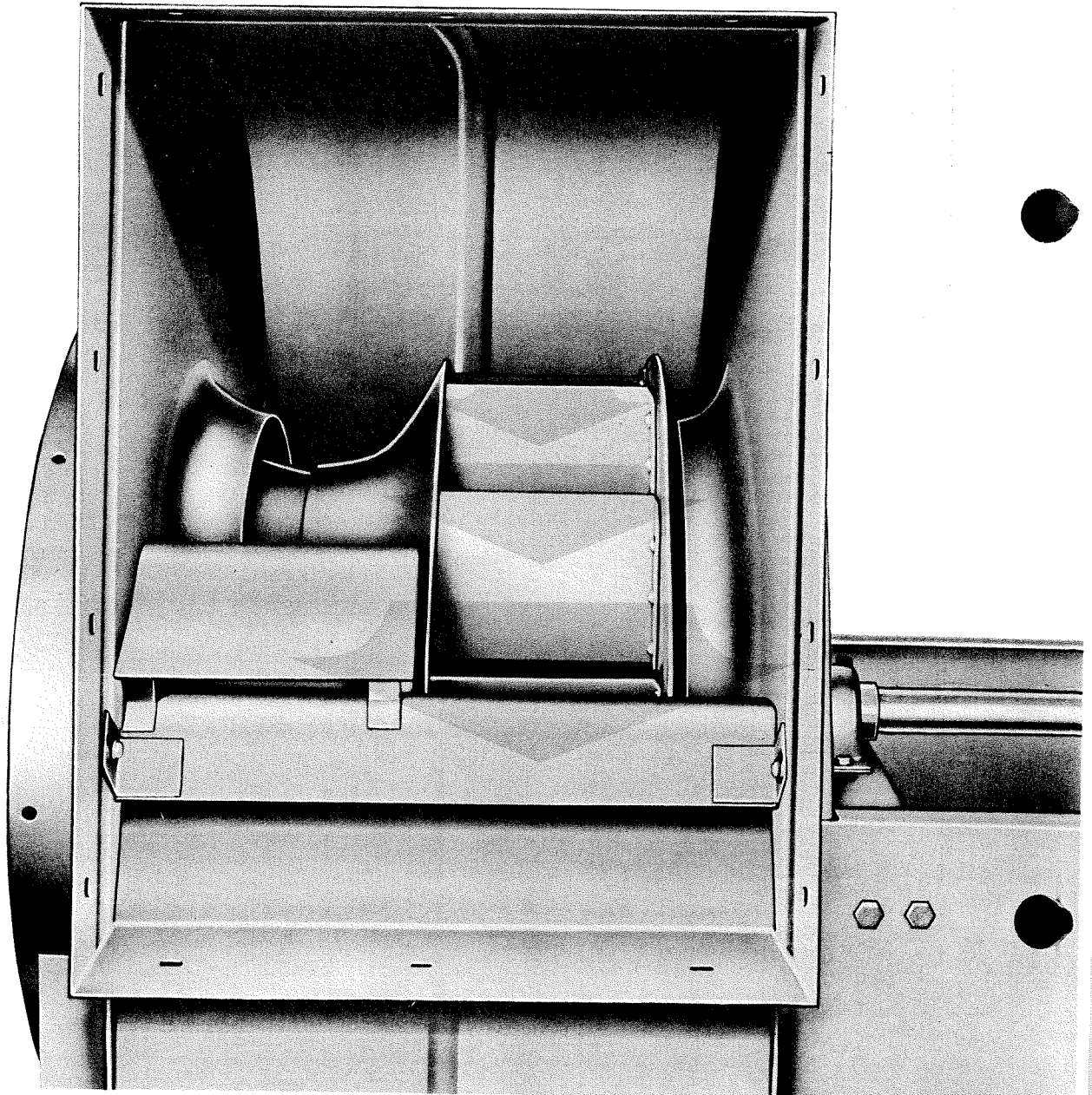
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# *Quality components add up to reliable utility fans*

## **DESIGN FEATURES OF TRANE UTILITY FANS**

- The utility fan is a completely self-contained unit consisting of a fan, motor and drive that are factory tested before shipment.
- Lockseam fan housings are standard on 22-inch and smaller fans. Housings are spot welded and sealed on 24-inch and larger fans. This means permanent housing rigidity and an airtight construction are assured.
- Statically and dynamically balanced aerodynamic wheels with spun steel inlet rims give efficient, quiet operation.
- All fans have precisely positioned cutoffs to smoothly and quietly divert air into ductwork.
- Both inlet and outlet have integral collars for easy installation of ductwork.
- Shafts are solid AISI C-1040 or 1045 hot rolled steel, accurately turned and polished.
- Rugged, heavy-duty bearings are selected to ensure long, trouble-free life.
- Belt-drive units have assembled drives, easily modified to comply with variations in application conditions.



## HOUSINGS

All Trane utility fan housings are constructed of heavy-gauge steel, with housing sides bonded to the fan scroll. Maximum strength and airtight construction result from a stiffener bead around the sides and top of the discharge on sizes 22 and smaller. Fan sizes 24 and larger have formed angles around the sides and top of the discharge.

## WHEELS

Forward curved fan wheels are constructed with each blade shaped and positioned to provide maximum efficiency and minimum power consumption. All blades are die cut and formed to provide identical shapes. Swaged hubs are furnished on all wheels.

Backward inclined wheels (plate-type on 22-inch and smaller sizes and airfoil on 24-inch and larger) are designed for higher speed operation with self-limiting, nonoverloading characteristics.

Both FC and BI fan wheels are statically and dynamically balanced using modern electronic balancing equipment.

## SHAFTS

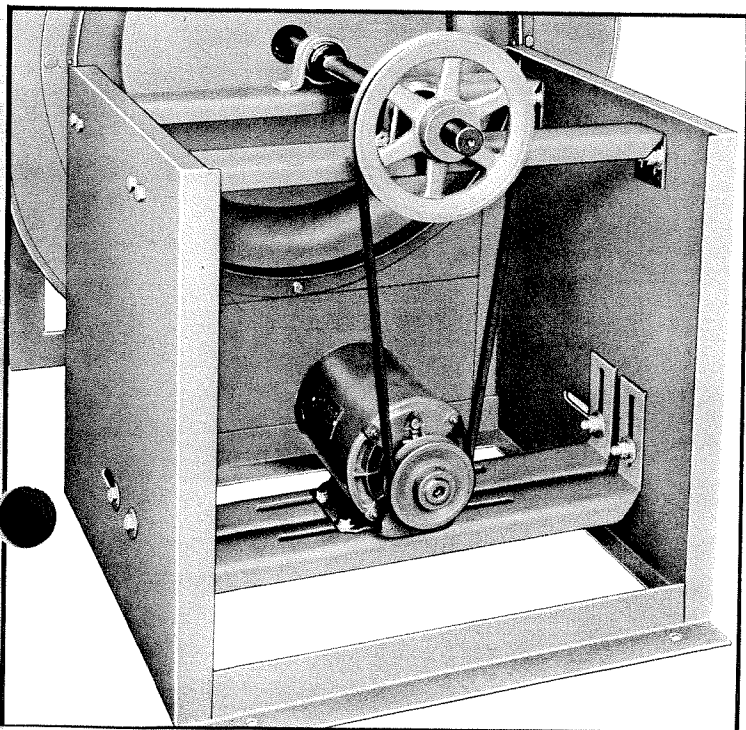
All fan shafts are solid AISI C-1040 or 1045 ground and polished steel. Close tolerances are maintained where the shaft makes contact with bearings and fan wheel hub. All shafts have a rust-preventive coating.

## INLET CONES

The aerodynamic shape of the inlet cone reduces turbulence in the air entering the fan. Inlet cones on FC fans are an integral part of the housing, constructed of a heavy-gauge steel and die formed to precise tolerances to assure smooth air intake. BI fans have spun-component inlet cones.

## BEARINGS

Self-aligning, grease-lubricated, pillow block bearings are standard on all utility fans. A contact seal provides optimum grease retention and protection from contaminants. Bearings are selected for a minimum average life of 200,000 hours at maximum cataloged operating conditions for sizes 22 inches and smaller, 100,000 hours on sizes 24 inches and larger.

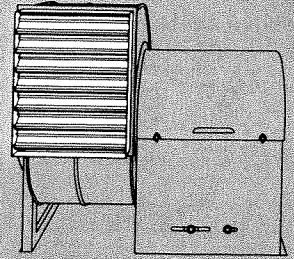


5

## ACCESSORIES TO INCREASE FLEXIBILITY

### BACKDRAFT DAMPERS

Gravity-operated dampers can be furnished to prevent a backdraft of air through the fan outlet when the unit is not operating. The dampers are counter-weighted and have interlocking aluminum blades with felt edges in a steel frame. Dampers are suitable for manual or automatic operation.

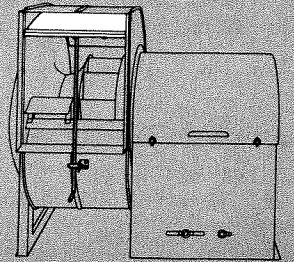


### ACCESS DOOR

An access door can be provided to allow inspection of the fan wheel. The access door is gasketed with latch-type handles.

### SCROLL VOLUME CONTROL

A scroll damper is available as a means of varying air volume. The damper will eliminate the balancing problem between fan performance and the system when static pressures change.



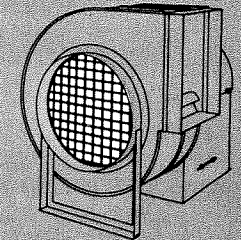
### SPARK-RESISTANT CONSTRUCTION

When Trane utility fans are used to handle air contaminated with explosive vapors, gases or dust, units can be constructed to meet AMCA type A, B or C spark-resistant construction.

**TYPE A:** All parts of the fan in contact with the air or gas being handled are made of nonferrous material.

**TYPE B:** The fan has a nonferrous wheel and ring around the opening through which the shaft passes.

**TYPE C:** The fan has a nonferrous inlet cone and housing cover plate on the side opposite the inlet.



### INLET SCREEN

Removable inlet screens are available to prevent wheel damage and to provide a safeguard when required. Screens are constructed of heavy-gauge wire.

### PROTECTIVE COATINGS

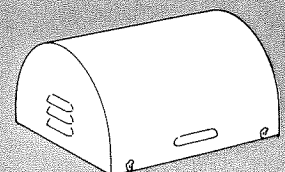
While Trane standard grey enamel primer is excellent for most environments, a wide variety of special coatings can be provided. These are used if corrosive fumes, high moisture, high temperature or abrasive materials are present.

### DRAIN CONNECTION

A drain connection can be supplied to remove any condensate that may collect in the fan housing. A 3/4-inch IPS coupling is affixed to the lower portion of the fan housing.

### WEATHER HOOD

A weather hood is available for all utility fan sizes. The protective hood is designed with vents to assure sufficient air for cooling the motor. The hood also offers protection from accidental injury.



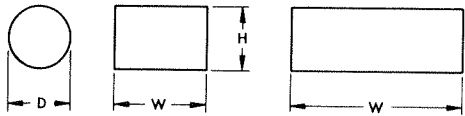
**TRANE**  
AIR CONDITIONING

# SYSTEM DESIGN

The following are examples of good system design.

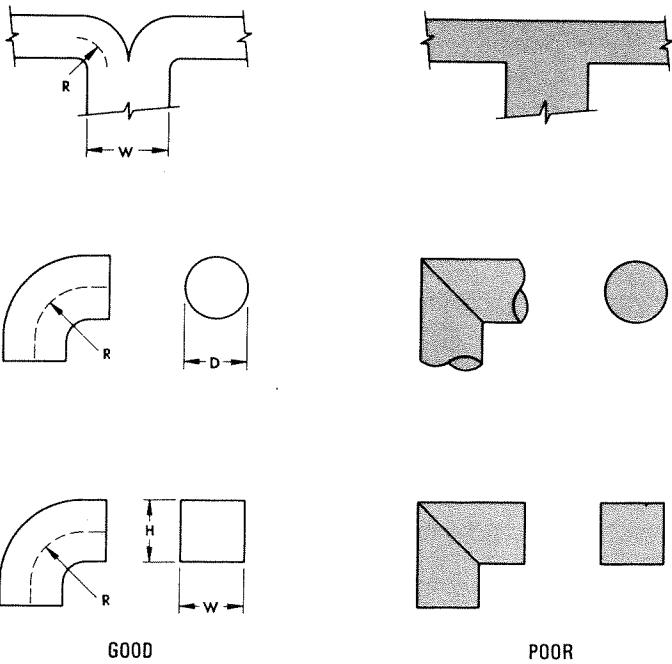
## 1. DUCT SHAPE

- In any system, circular duct will have the lowest first cost.
- An aspect ratio of  $W/H = 4$  is the maximum recommended.



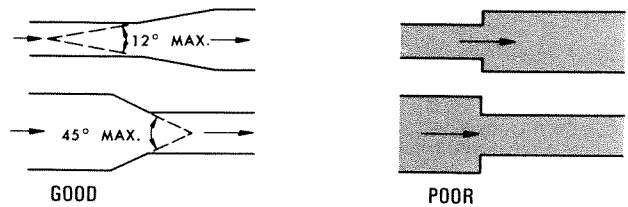
## 2. ELBOW DESIGN

- R/D or R/W ratio of 1.5 are recommended minimum. Sharp corners or mitre corners ( $R = 0$ ) may have friction losses as great as 4 or 5 times that of regular corners.

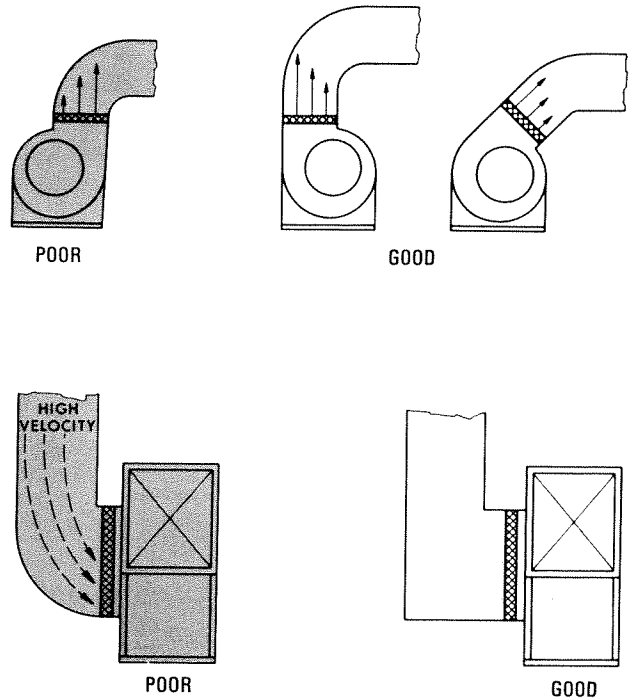


## 3. DUCT TRANSITION

- The recommended transitions allow changes in duct size with no loss in airflow velocity pressure. For abrupt changes (as shown on the right) consult the ASHRAE Guide.



## 4. FAN INSTALLATION



# APPLICATION

## HIGH TEMPERATURE APPLICATION

Fan operation at high temperature affects the strength of fan wheels, shafts and bearings. As a result, maximum fan speed at higher temperatures is reduced. If high temperature air is handled, it is important to specify the proper fan and construction.

## TEMPERATURE LIMITATIONS

TYPE CONSTRUCTION	BELT DRIVE TEMP. LIMIT	DIRECT DRIVE TEMP. LIMIT
Standard Construction	250 F	200 F
High Temperature Construction (Fan coated with high temp. alum. paint and weatherproof motor hood must be omitted)	350 F	NOT AVAILABLE
High Temperature Construction with a heat slinger	600 F	NOT AVAILABLE

## MAXIMUM TIP SPEEDS

The maximum allowable tip speed varies with the temperature of the air being handled by the fan. The strength of metal decreases as the temperature increases. So, the maximum tip speed at which a fan can operate decreases as temperature increases. The following table shows the maximum tip speed for steel fan wheels under various temperature conditions

OPERATING TEMPERATURE RANGE DEGREES F	ALLOWABLE WHEEL TIP SPEED — FEET/MIN.	
	BI FANS	FC FANS
-20 to 400 F*	9,000	4,500
401 to 500 F*	8,250	4,125
501 to 600 F*	7,650	3,825

At temperatures below -20 F, metals begin to get brittle. Special consideration must be given to equipment that will operate at these low temperatures. Contact Trane sales representatives when fans are to handle air at temperatures below -20 F.

\*Standard wheel construction.

## SPEED FACTORS

The performance tables give rpm limits by pressure class for fans with steel wheels handling 70 F air. If air at a higher temperature is to be handled, the rpm limit must be multiplied by the following speed factors to arrive at the maximum allowable rpm.

At temperatures below -20 F, metals begin to get brittle. Special consideration must be given to equipment that will operate at these low temperatures. Contact Trane sales representatives when fans are to handle air at temperatures below -20 F.

OPERATING TEMPERATURE	SPEED FACTOR
-20 to 400 F	1.00
401 to 500 F	0.90
501 to 600 F	0.82

## FAN SELECTION

In most cases, several sizes of a given fan type can be selected to do a specific job. Power requirements and sound characteristics vary with fan size. Generally the largest fan that can be selected will be the most efficient and quiet.

## FAN SIZING

Cfm requirements are dictated by the total ventilation, cooling or heating load. Total static pressure is the sum of all friction losses (ducts, elbows, filters, coils, etc.) the fan must overcome to deliver the desired cfm. It is important to estimate static pressure accurately to ensure proper fan selection.

## RATING TABLES

Rating tables and fan curves covering the complete Trane utility fan line and 24 through 36-inch airfoil single width centrifugal fans will be found on the following pages.

Tables and curves for direct-drive utility fans show cfm at varying static pressures and available motor rpm. For belt-driven utility and centrifugal fans, follow the static pressure column down to the cfm desired to determine brake horsepower and rpm.

## SELECTION EXAMPLE

A fan is required to deliver 1,000 cfm against 0.25-inch static pressure. From the selection tables, 9 through 13-inch FC and 10 through 13-inch BI fans will meet the required conditions. For the purpose of this example, operating cost is assumed more important than first cost. The 13-inch BI fan is the most efficient. By interpolation 1,000 cfm at 0.25-inch static pressure will draw 0.80 bhp while operating at 843 rpm. A 1 hp motor is required. From Table 7-1 a 1 hp motor is designated by the letter M. The rpm ranges below the performance table indicate a number 1 drive is needed for 843 rpm. The correct order number is therefore 13 M1.

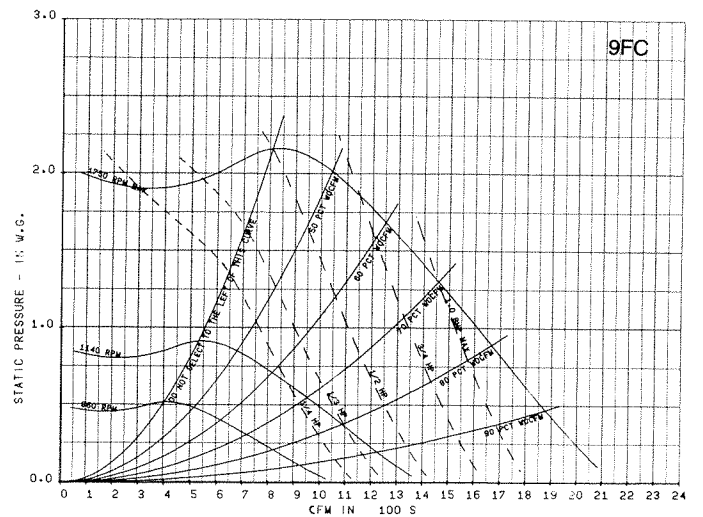
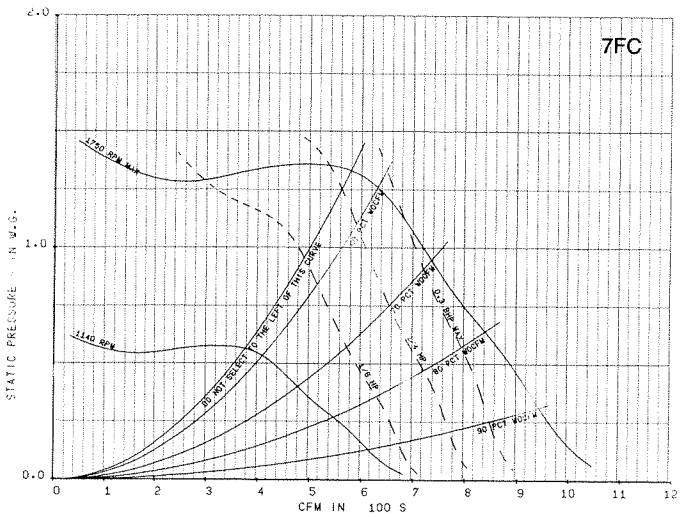
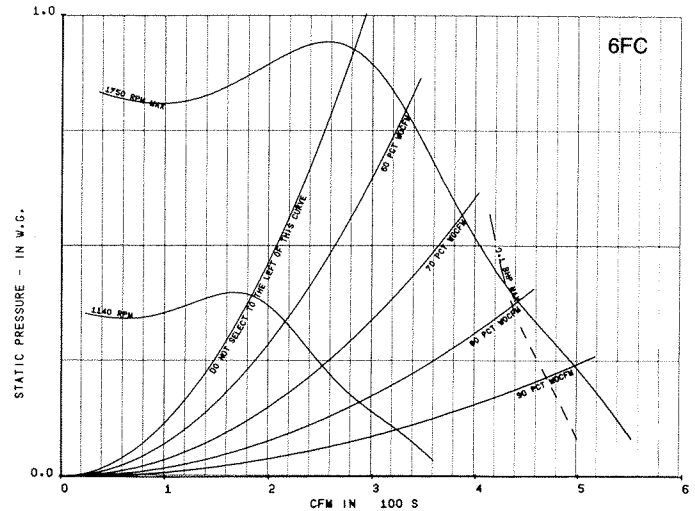
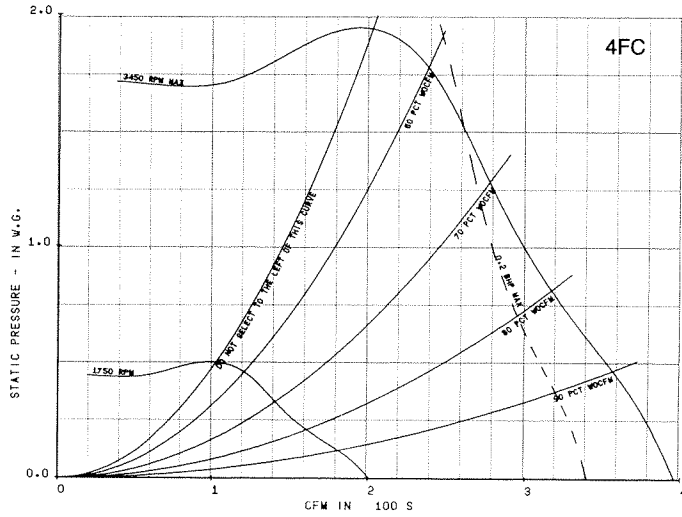
TABLE 7-1

MOTOR HP	LETTER DESIGNATION
1/20	D
1/8	E
1/6	F
1/4	G
1/3	H
1/2	K
3/4	L
1	M
1½	N
2	P
3	R
5	S
7½	T

Direct Drive FC Utility Fans

FAN NO.	WHEEL DIA.	MOTOR RPM	MOTOR HP (MAX BHP)	0" SP		1/8" SP		1/4" SP		3/8" SP		1/2" SP		3/4" SP		1" SP		1 1/2" SP		
				CFM	OV	CFM	OV	CFM	OV	CFM	OV	CFM	OV	CFM	OV	CFM	OV	CFM	OV	CFM
4EY	4 1/2"	1725	1/8	199	1550	176	1370	150	1170	133	1040									
4HZ	4 1/2"	3450	1/3 (.262)	397	3100															
4GZ	4 1/2"	3450	1/4			388	3030	377	2950	365	2850	348	2720	327	2560	300	2340			
4FZ	4 1/2"	3450	1/6															268	2090	
6DX	6"	1140	1/20	375	1830	310	1510	250	1220	200	975									
6FY	6"	1725	1/6	570	2780	525	2560	485	2370											
6EY	6"	1725	1/8							435	2120	395	1930	330	1610					
7FX	7 1/2"	1140	1/6	702	2160	615	1890													
7EX	7 1/2"	1140	1/8					555	1710	492	1510	430	1320							
7LY	7 1/2"	1725	3/4 (.536)	1060	3560	995	3060													
7KY	7 1/2"	1725	1/2 (.466)					940	2890	905	2780	860	2640	770	2370					
7HY	7 1/2"	1725	1/3 (.331)													702	2160			
9GW	9"	860	1/4	1020	2170															
9FW	9"	860	1/6			908	1930	780	1660	650	1380	480	1020							
9KX	9"	1140	1/2 (.451)	1385	2945	1280	2720	1185	2520	1135	2420									
9HX	9"	1140	1/3 (.291)									990	2100							
9NY	9"	1725	1 1/2 (1.50)	2090	4440	2015	4280	1950	4150	1890	4020	1820	3870	1700	3620	1575	3350			
9MY	9"	1725	1 (.851)															1305	2780	

PERFORMANCE IS FOR UTILITY FAN WITH OUTLET DUCT. BHP DOES NOT INCLUDE LOSSES.

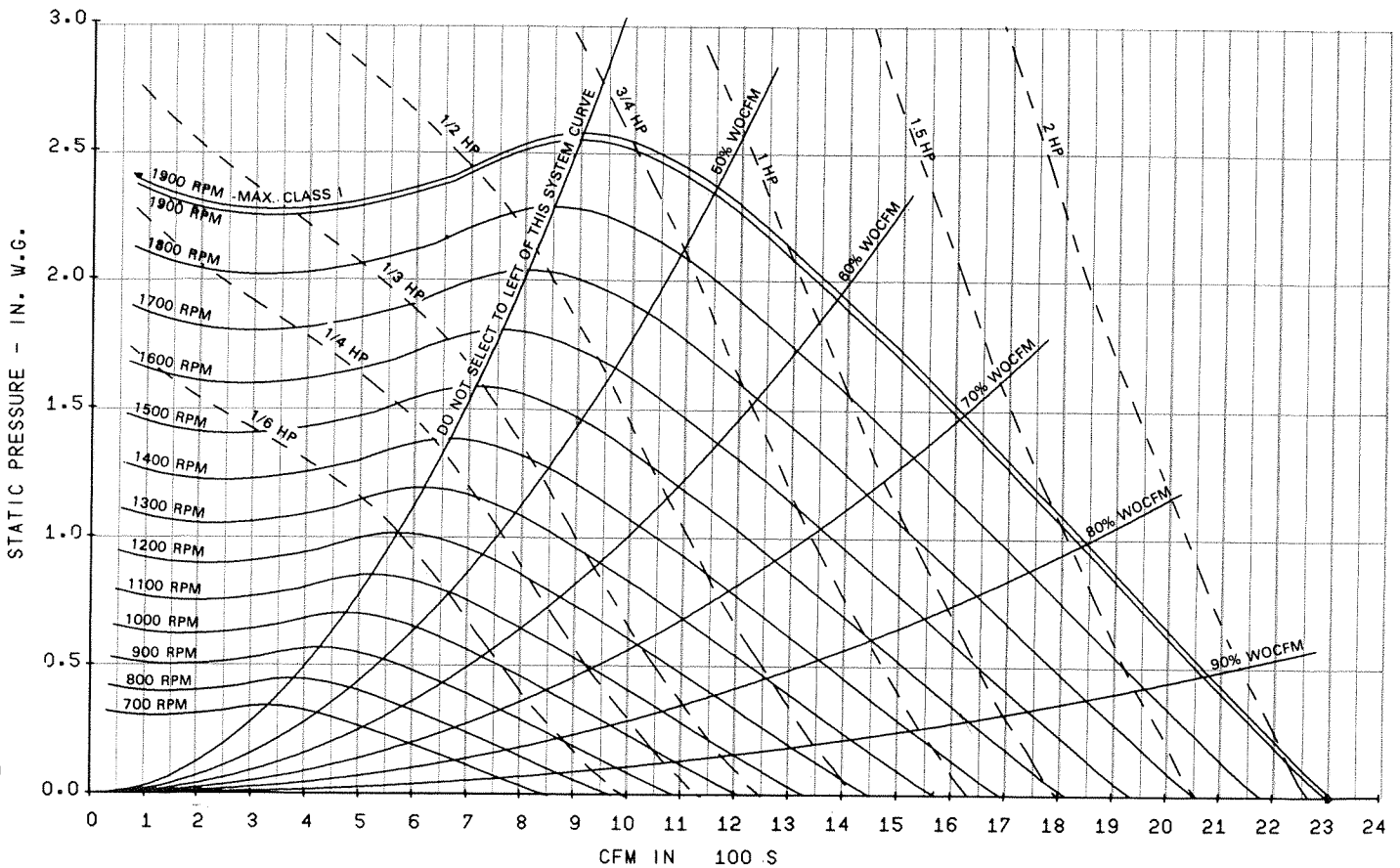




9 FC (Wheel Dia. 9" Tip Speed FPM = 2.36 x RPM Maximum RPM 1910 Outlet Area .468 Sq. Ft.)

VOL. CFM	OUT. VEL. FPM	1/8" S.P.		1/4" S.P.		3/8" S.P.		1/2" S.P.		5/8" S.P.		3/4" S.P.		1" S.P.		1 1/4" S.P.		1 1/2" S.P.		2" S.P.	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
374	800	489	0.02	623	0.03	732	0.04														
421	900	521	0.03	627	0.04	745	0.05	844	0.06												
468	1000	554	0.03	655	0.04	765	0.06	855	0.07	943	0.08										
514	1100	583	0.04	694	0.05	768	0.06	877	0.08	954	0.10	1033	0.11								
561	1200	614	0.05	700	0.06	793	0.08	887	0.09	969	0.11	1044	0.13								
608	1300	646	0.06	747	0.08	846	0.09	892	0.10	988	0.12	1059	0.14	1195	0.18						
655	1400	678	0.07	779	0.09	847	0.10	921	0.12	988	0.14	1081	0.16	1207	0.20	1333	0.24				
702	1500	710	0.08	808	0.10	866	0.12	977	0.14	1009	0.15	1088	0.18	1222	0.22	1340	0.26	1459	0.30		
748	1600	744	0.10	839	0.12	917	0.14	977	0.16	1077	0.18	1095	0.19	1246	0.24	1355	0.28	1464	0.33		
795	1700	778	0.11	870	0.14	949	0.16	991	0.17	1094	0.21	1123	0.22	1254	0.26	1370	0.31	1477	0.36		
842	1800	812	0.13	901	0.16	979	0.18	1043	0.20	1093	0.22	1191	0.26	1255	0.28	1394	0.34	1491	0.39	1687	0.49
889	1900	846	0.15	933	0.18	1009	0.21	1076	0.23	1108	0.24	1201	0.28	1277	0.31	1402	0.37	1519	0.43	1696	0.53
936	2000	881	0.18	965	0.20	1040	0.23	1107	0.26	1161	0.28	1199	0.30	1309	0.35	1401	0.39	1530	0.46	1710	0.57
982	2100	916	0.20	998	0.23	1071	0.26	1137	0.29	1196	0.31	1219	0.32	1378	0.40	1422	0.42	1537	0.49	1725	0.61
1029	2200	951	0.23	1032	0.26	1102	0.29	1167	0.32	1227	0.35	1276	0.37	1387	0.43	1451	0.47	1536	0.52	1755	0.66
1076	2300	986	0.25	1065	0.29	1134	0.32	1197	0.35	1257	0.38	1310	0.41	1384	0.45	1532	0.54	1557	0.56	1766	0.70
1123	2400	1022	0.29	1098	0.32	1166	0.35	1228	0.39	1286	0.42	1341	0.45	1401	0.49	1547	0.58	1587	0.61	1773	0.74
1170	2500	1057	0.32	1132	0.36	1198	0.39	1260	0.43	1317	0.46	1372	0.50	1431	0.53	1552	0.61	1674	0.70	1768	0.78
1216	2600	1093	0.36	1166	0.40	1231	0.43	1291	0.47	1348	0.51	1401	0.54	1494	0.61	1550	0.64	1692	0.75	1785	0.83
1263	2700	1129	0.39	1201	0.44	1265	0.47	1323	0.51	1379	0.55	1431	0.59	1526	0.66	1571	0.69	1699	0.79	1810	0.89
1310	2800	1165	0.43	1237	0.48	1299	0.52	1355	0.56	1410	0.60	1461	0.64	1557	0.72	1602	0.75	1693	0.82	1842	0.96
1357	2900	1202	0.48	1271	0.53	1332	0.57	1388	0.61	1442	0.65	1492	0.69	1588	0.77	1667	0.84	1707	0.87		
1404	3000	1238	0.53	1306	0.58	1366	0.62	1421	0.66	1473	0.70	1523	0.75	1617	0.83	1701	0.91	1732	0.93		

V-BELT DRIVE #1. RPM RANGE 467-671; #2. 672-841; #3. 834-1168; #4. 1159-1500; #5. 1500-1791; #6. 1705-1875.  
 PERFORMANCE IS FOR UTILITY FAN WITH OUTLET DUCT. BHP DOES NOT INCLUDE LOSSES.

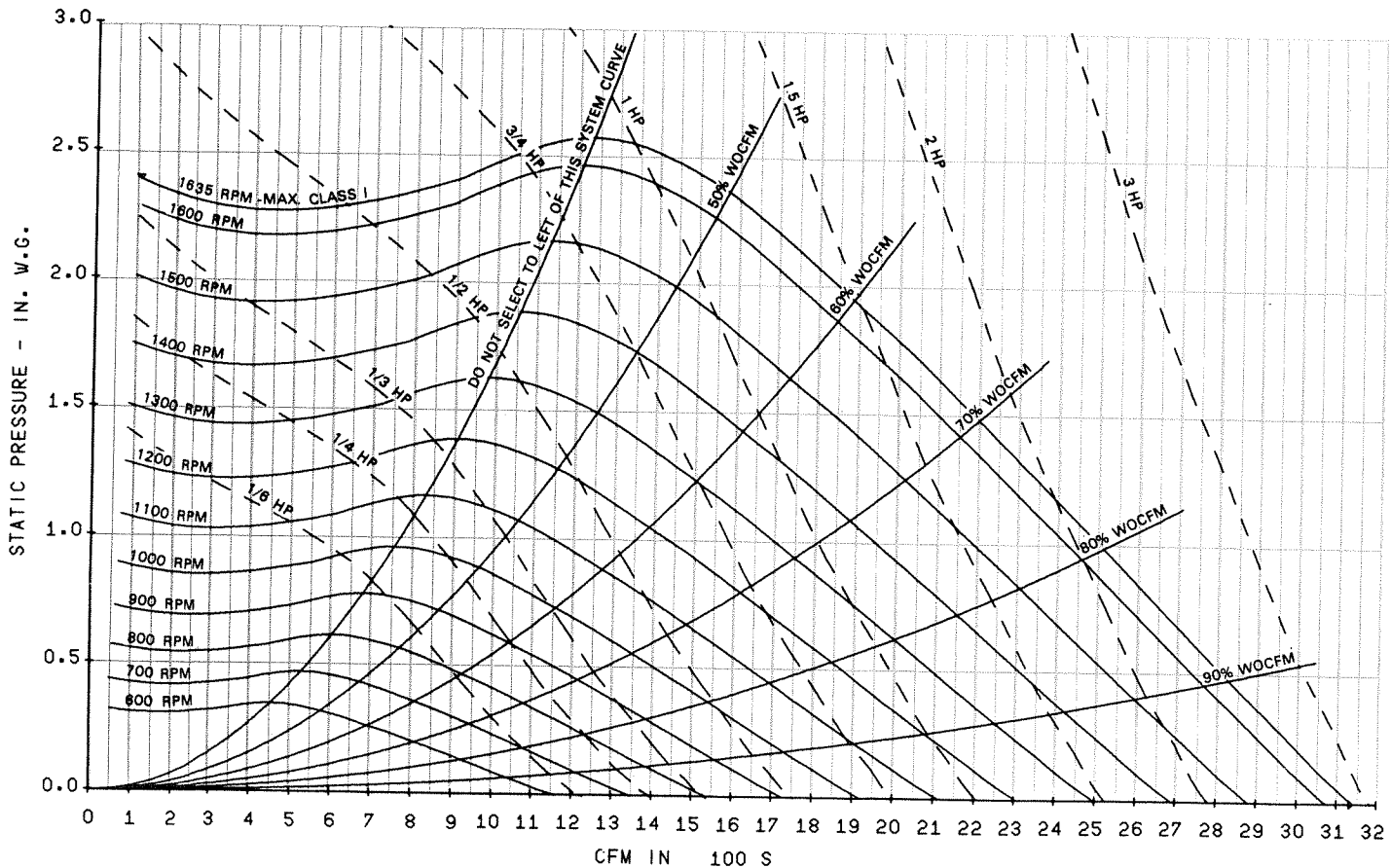


10 FC (Wheel Dia. 10 1/2" Tip Speed FPM = 2.75 x RPM Maximum RPM 1635 Outlet Area 0.638 Sq. Ft.)

VOL. CFM	OUT. VEL. FPM	1/8" S.P.		1/4" S.P.		3/8" S.P.		1/2" S.P.		5/8" S.P.		3/4" S.P.		1" S.P.		1 1/4" S.P.		1 1/2" S.P.		2" S.P.	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
510	800	419	0.03	534	0.04	628	0.06	723	0.08												
574	900	447	0.03	538	0.05	639	0.07	733	0.10												
638	1000	475	0.04	581	0.06	656	0.08	752	0.11												
701	1100	500	0.05	594	0.07	658	0.09	752	0.11	808	0.12										
765	1200	527	0.07	601	0.08	681	0.10	760	0.13	831	0.15	886	0.15								
829	1300	554	0.08	641	0.10	725	0.13	765	0.14	847	0.17	908	0.19	1024	0.24						
893	1400	581	0.10	668	0.12	726	0.14	790	0.16	847	0.19	926	0.22	1035	0.27	1143	0.32				
957	1500	610	0.11	693	0.14	743	0.16	837	0.20	866	0.21	933	0.24	1048	0.30	1149	0.36	1251	0.41		
1020	1600	639	0.13	719	0.16	787	0.19	838	0.21	923	0.25	939	0.26	1068	0.33	1161	0.39	1255	0.45		
1084	1700	667	0.16	746	0.19	814	0.22	850	0.24	938	0.28	963	0.29	1075	0.36	1175	0.42	1266	0.49		
1148	1800	696	0.18	773	0.22	840	0.25	895	0.28	937	0.30	1021	0.35	1076	0.38	1195	0.47	1278	0.53	1447	0.67
1212	1900	726	0.21	800	0.24	865	0.28	923	0.32	951	0.33	1030	0.38	1096	0.42	1202	0.50	1302	0.58	1454	0.72
1276	2000	756	0.24	828	0.28	892	0.32	950	0.35	996	0.38	1028	0.40	1161	0.50	1201	0.53	1312	0.63	1466	0.77
1339	2100	786	0.27	856	0.31	919	0.35	975	0.39	1026	0.43	1046	0.44	1182	0.55	1219	0.58	1318	0.67	1479	0.83
1403	2200	816	0.31	885	0.35	945	0.39	1001	0.44	1053	0.48	1094	0.51	1189	0.58	1245	0.64	1317	0.70	1504	0.90
1467	2300	846	0.35	914	0.39	973	0.44	1027	0.48	1078	0.52	1123	0.56	1186	0.62	1314	0.74	1336	0.76	1514	0.96
1531	2400	877	0.39	943	0.44	1000	0.48	1054	0.53	1104	0.58	1151	0.62	1202	0.67	1326	0.79	1361	0.83	1520	1.01
1595	2500	907	0.44	972	0.49	1028	0.53	1081	0.58	1130	0.63	1177	0.68	1228	0.73	1330	0.83	1435	0.95	1515	1.06
1658	2600	938	0.49	1001	0.54	1057	0.59	1108	0.64	1156	0.69	1202	0.74	1281	0.83	1329	0.88	1451	1.02	1531	1.13
1722	2700	969	0.54	1030	0.60	1086	0.65	1135	0.70	1183	0.75	1227	0.80	1309	0.90	1347	0.94	1456	1.08	1553	1.21
1786	2800	1000	0.59	1061	0.66	1114	0.71	1163	0.76	1210	0.82	1254	0.87	1336	0.98	1374	1.02	1452	1.12	1580	1.30
1850	2900	1031	0.66	1091	0.72	1143	0.78	1191	0.83	1237	0.89	1280	0.95	1362	1.06	1431	1.15	1464	1.19		
1914	3000	1063	0.72	1121	0.79	1172	0.85	1219	0.91	1264	0.96	1307	1.02	1387	1.14	1459	1.24	1486	1.28		

V-BELT DRIVE #1. RPM RANGE 389-558; #2. 555-817; #3. 792-1000; #4. 809-1110; #5. 1081-1210; #6. 838-1080; #7. 1081-1338; #8. 1350-1615.

PERFORMANCE IS FOR UTILITY FAN WITH OUTLET DUCT. BHP DOES NOT INCLUDE LOSSES.

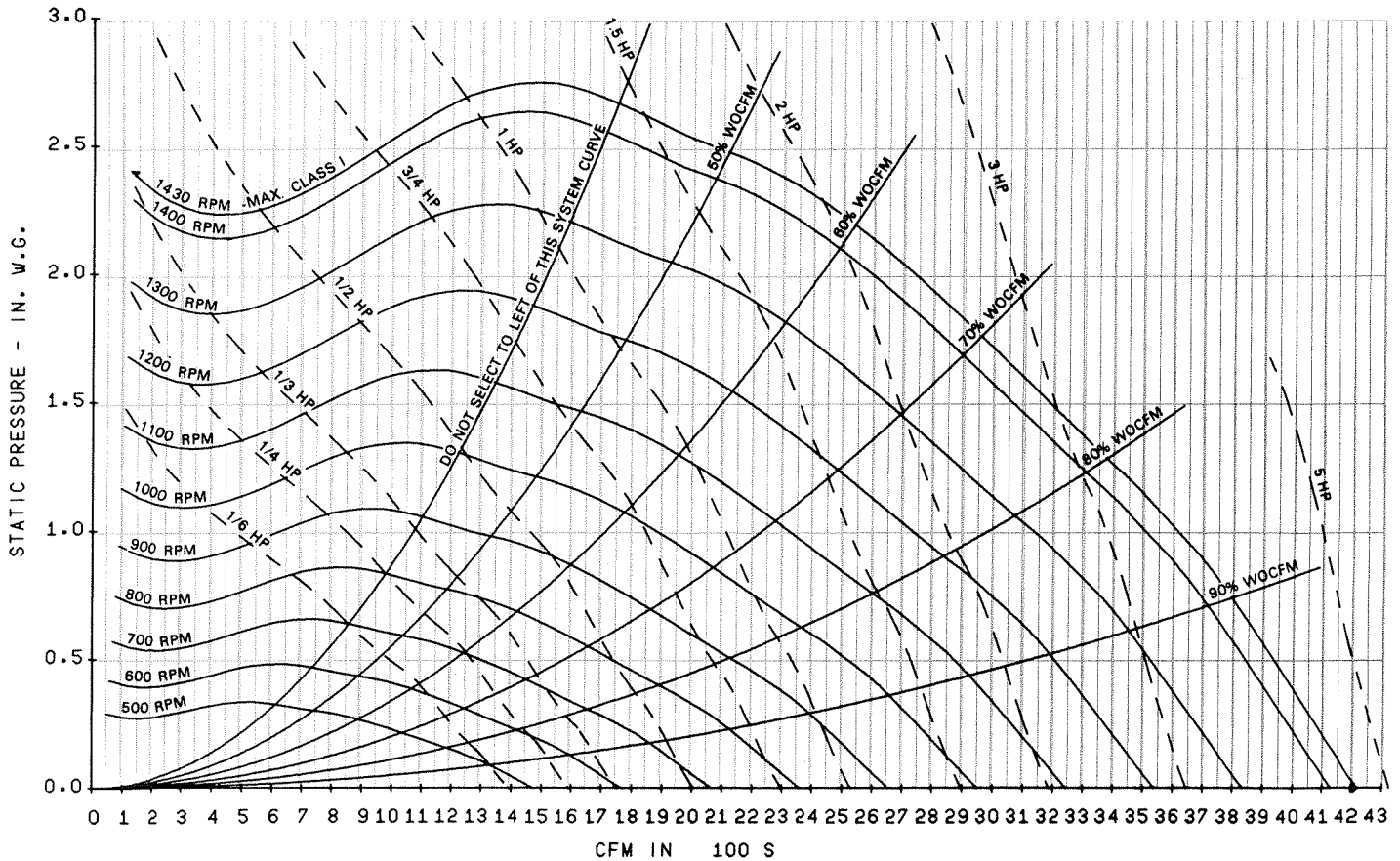


12 FC (Wheel Dia. 12" Tip Speed FPM = 3.14 x RPM Maximum RPM 1430 Outlet Area 0.86 Sq. Ft.)

VOL. CFM	OUT. VEL. FPM	1/8" S.P.		1/4" S.P.		3/8" S.P.		1/2" S.P.		5/8" S.P.		3/4" S.P.		1" S.P.		1 1/4" S.P.		1 1/2" S.P.		2" S.P.	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
688	800	363	0.04	456	0.06	541	0.08														
774	900	384	0.05	468	0.07	551	0.09	622	0.12												
860	1000	403	0.06	484	0.08	561	0.11	633	0.14	694	0.17										
946	1100	422	0.06	507	0.10	573	0.13	642	0.16	705	0.19	761	0.22								
1032	1200	441	0.09	528	0.12	588	0.14	653	0.18	715	0.21	772	0.25								
1118	1300	462	0.11	548	0.15	610	0.17	666	0.20	725	0.24	782	0.27	882	0.35						
1204	1400	485	0.14	568	0.17	632	0.20	682	0.23	737	0.26	792	0.30	894	0.39	980	0.46				
1290	1500	509	0.16	586	0.20	653	0.24	704	0.27	751	0.29	803	0.33	903	0.42	991	0.51				
1376	1600	532	0.19	606	0.24	672	0.27	726	0.31	770	0.33	817	0.37	912	0.46	1003	0.56	1081	0.65		
1462	1700	558	0.23	625	0.27	692	0.31	747	0.35	792	0.38	833	0.41	923	0.50	1012	0.60	1091	0.70		
1548	1800	583	0.26	645	0.30	711	0.35	767	0.40	815	0.44	854	0.47	936	0.55	1021	0.65	1103	0.76	1243	0.96
1634	1900	610	0.31	667	0.35	730	0.40	787	0.45	835	0.49	877	0.53	950	0.59	1032	0.70	1112	0.81	1254	1.04
1720	2000	637	0.35	691	0.39	750	0.45	807	0.50	855	0.55	898	0.59	969	0.66	1045	0.76	1122	0.87	1266	1.11
1806	2100	664	0.41	714	0.45	769	0.50	825	0.56	875	0.61	919	0.66	991	0.73	1058	0.81	1133	0.93	1275	1.18
1892	2200	691	0.46	738	0.50	789	0.56	844	0.62	895	0.68	939	0.73	1014	0.82	1076	0.89	1146	1.00	1284	1.26
1978	2300	718	0.53	762	0.57	811	0.62	864	0.69	914	0.74	958	0.80	1035	0.90	1098	0.98	1159	1.07	1294	1.34
2064	2400	745	0.59	787	0.64	834	0.69	883	0.75	933	0.82	978	0.88	1056	0.99	1119	1.08	1177	1.16	1306	1.42
2150	2500	773	0.67	813	0.71	858	0.76	903	0.82	952	0.91	997	0.96	1076	1.08	1142	1.18	1198	1.27	1318	1.50
2236	2600	800	0.75	839	0.79	881	0.84	924	0.90	971	0.99	1016	1.05	1095	1.18	1163	1.29	1220	1.38	1332	1.60
2322	2700	828	0.83	866	0.88	905	0.93	947	0.99	990	1.07	1035	1.15	1116	1.28	1184	1.40	1243	1.51	1346	1.69
2408	2800	856	0.92	893	0.98	929	1.03	970	1.08	1011	1.16	1055	1.25	1135	1.39	1204	1.52	1264	1.64	1365	1.82
2494	2900	884	1.02	920	1.08	954	1.13	994	1.19	1032	1.25	1074	1.35	1154	1.50	1223	1.64	1285	1.77	1386	1.97
2580	3000	912	1.13	946	1.18	980	1.24	1017	1.30	1054	1.36	1093	1.45	1173	1.61	1243	1.77	1305	1.90	1408	2.13

V-BELT DRIVE #1, RPM RANGE 350-495; #2, 496-675; #3, 673-876; #4, 625-825; #5, 809-1010; #6, 700-950; #7, 924-1113; #8, 850-1025; #9, 1020-1255; #10, 1175-1415.

PERFORMANCE IS FOR UTILITY FAN WITH OUTLET DUCT. BHP DOES NOT INCLUDE LOSSES.

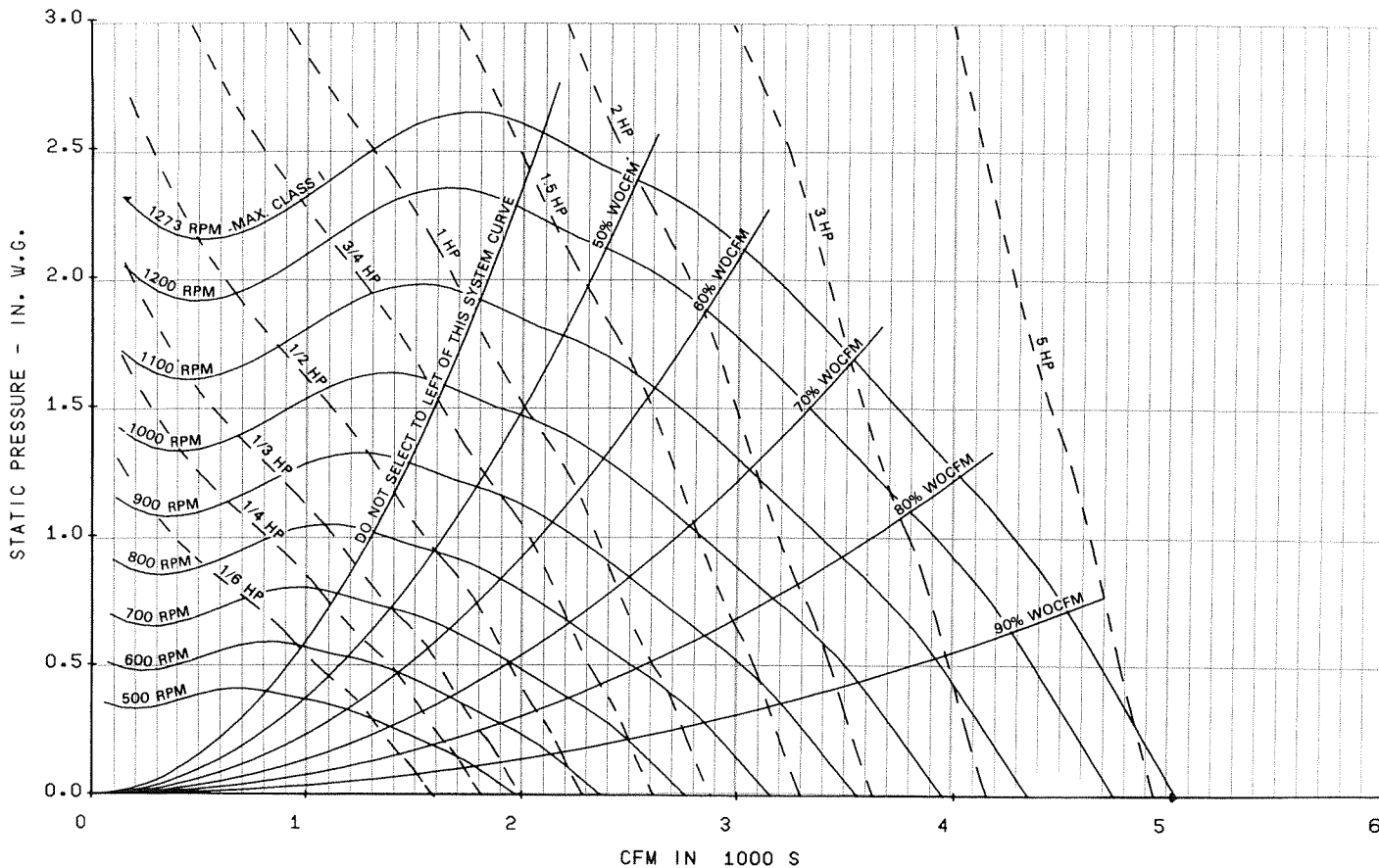


13 FC (Wheel Dia. 13½" Tip Speed FPM = 3.54 x RPM Maximum RPM 1273 Outlet Area 1.05 Sq. Ft.)

VOL. CFM	OUT. VEL. FPM	1/8" S.P.		1/4" S.P.		3/8" S.P.		1/2" S.P.		5/8" S.P.		3/4" S.P.		1" S.P.		1 1/4" S.P.		1 1/2" S.P.		2" S.P.	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
840	800	330	0.05	414	0.07	491	0.10														
945	900	349	0.06	425	0.08	501	0.12	565	0.15												
1050	1000	367	0.08	441	0.10	509	0.13	575	0.17	631	0.20										
1154	1100	384	0.10	461	0.13	521	0.15	583	0.19	641	0.23	691	0.27								
1259	1200	402	0.12	480	0.15	535	0.18	593	0.22	650	0.26	701	0.30								
1364	1300	421	0.14	498	0.18	555	0.21	605	0.24	659	0.29	710	0.34	801	0.43						
1469	1400	442	0.17	516	0.21	575	0.25	620	0.28	670	0.32	719	0.37	812	0.47	890	0.57				
1574	1500	463	0.20	534	0.25	594	0.29	640	0.33	683	0.36	730	0.41	820	0.52	900	0.63				
1680	1600	485	0.24	551	0.29	612	0.34	661	0.38	701	0.41	742	0.45	829	0.57	911	0.68	982	0.79		
1785	1700	508	0.28	569	0.33	630	0.38	680	0.43	721	0.47	757	0.50	839	0.61	919	0.74	991	0.86		
1890	1800	531	0.33	587	0.37	647	0.44	698	0.49	741	0.54	777	0.57	851	0.67	928	0.80	1002	0.92	1129	1.18
1995	1900	556	0.38	608	0.43	664	0.50	716	0.55	760	0.60	798	0.65	864	0.73	938	0.86	1010	1.00	1139	1.27
2100	2000	580	0.44	629	0.48	682	0.56	734	0.62	778	0.68	817	0.73	881	0.81	950	0.93	1019	1.07	1150	1.35
2204	2100	605	0.50	650	0.55	700	0.61	751	0.69	796	0.75	836	0.81	901	0.90	962	1.00	1030	1.14	1158	1.44
2309	2200	629	0.57	672	0.62	719	0.68	768	0.77	814	0.83	854	0.90	922	1.00	979	1.09	1041	1.23	1166	1.54
2414	2300	654	0.65	694	0.70	739	0.76	786	0.85	831	0.92	872	0.99	942	1.11	998	1.21	1054	1.31	1175	1.64
2519	2400	679	0.73	717	0.78	760	0.84	803	0.92	849	1.01	890	1.08	961	1.22	1018	1.33	1070	1.42	1186	1.73
2624	2500	704	0.82	741	0.88	781	0.94	822	1.01	866	1.11	907	1.18	979	1.33	1039	1.46	1090	1.56	1198	1.84
2729	2600	730	0.92	765	0.98	803	1.04	842	1.11	884	1.21	924	1.29	996	1.45	1059	1.59	1110	1.70	1210	1.96
2834	2700	755	1.02	790	1.09	824	1.15	862	1.22	901	1.31	942	1.42	1015	1.58	1077	1.73	1131	1.85		
2939	2800	780	1.14	814	1.20	847	1.26	883	1.33	920	1.42	959	1.54	1033	1.71	1095	1.87				
3044	2900	806	1.26	838	1.33	870	1.39	905	1.46	940	1.54	977	1.65	1050	1.84						
3149	3000	831	1.39	863	1.46	893	1.52	926	1.59	960	1.67	995	1.78	1067	1.99						

V-BELT DRIVE #1. RPM RANGE 302-430; #2. 417-614; #3. 475-700; #4. 525-723; #5. 545-700; #6. 701-875; #7. 614-814; #8. 815-992; #9. 700-833; #10. 745-919; #11. 893-1050; #12. 1051-1230.

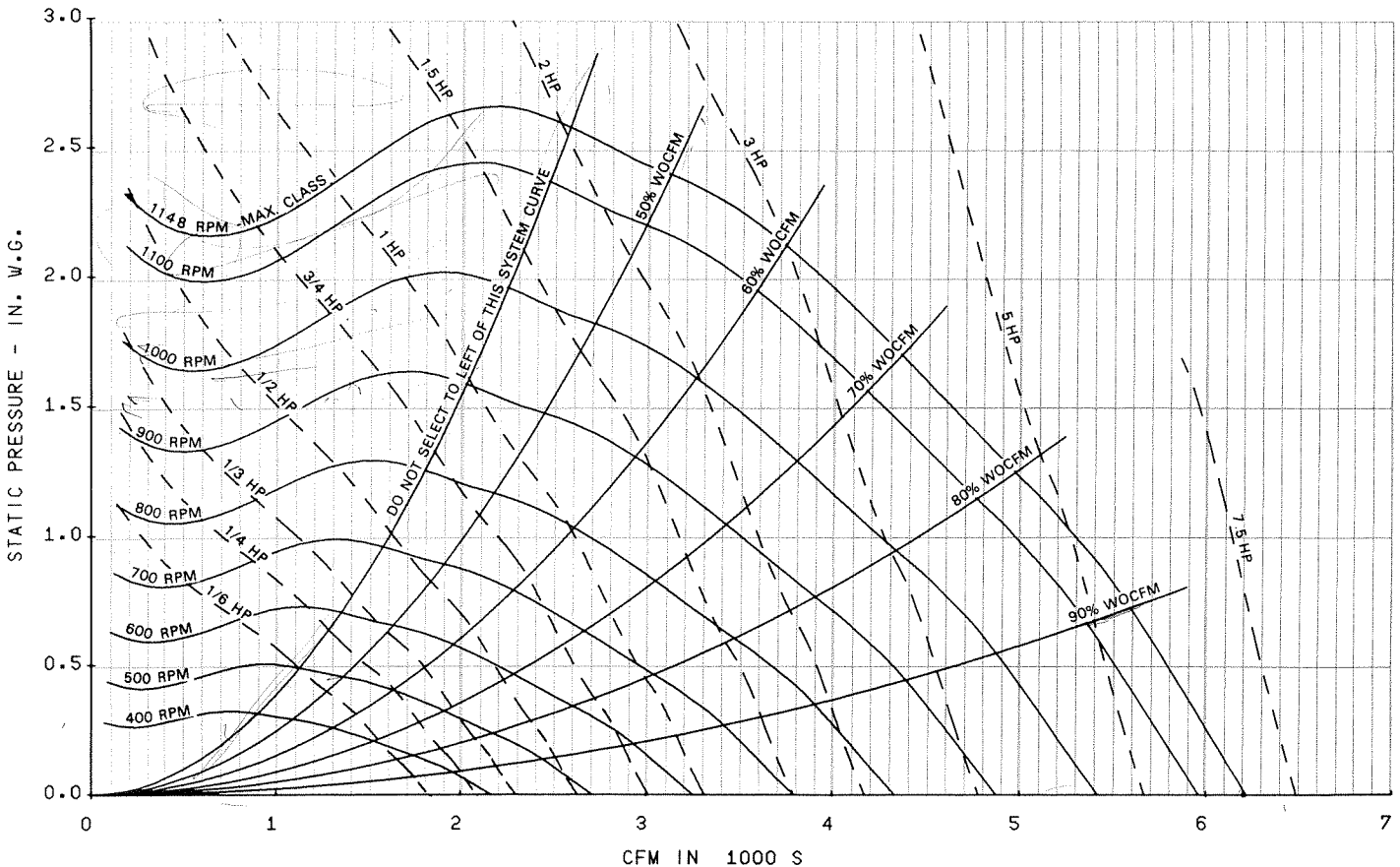
PERFORMANCE IS FOR UTILITY FAN WITH OUTLET DUCT. BHP DOES NOT INCLUDE LOSSES.



15 FC (Wheel Dia. 15" Tip Speed FPM = 3.93 x RPM Maximum RPM 1148 Outlet Area 1.28 Sq. Ft.)

VOL. CFM	OUT. VEL. FPM	1/8" S.P.		1/4" S.P.		3/8" S.P.		1/2" S.P.		5/8" S.P.		3/4" S.P.		1" S.P.		1 1/4" S.P.		1 1/2" S.P.		2" S.P.	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
1023	800	296	0.06	372	0.09	441	0.12														
1152	900	312	0.07	382	0.10	450	0.14	507	0.18												
1280	1000	328	0.09	394	0.12	457	0.16	516	0.21	566	0.25										
1408	1100	344	0.11	413	0.15	467	0.19	524	0.23	575	0.28	621	0.33								
1536	1200	359	0.14	430	0.18	479	0.21	532	0.26	583	0.31	629	0.37								
1664	1300	376	0.17	446	0.22	496	0.26	543	0.30	591	0.35	638	0.41	720	0.52						
1792	1400	394	0.20	462	0.26	515	0.30	556	0.34	601	0.39	646	0.45	728	0.57	800	0.69				
1919	1500	413	0.24	477	0.30	531	0.35	573	0.39	612	0.43	655	0.50	737	0.63	808	0.76				
2047	1600	433	0.28	493	0.35	547	0.40	591	0.45	627	0.49	666	0.55	744	0.69	818	0.82	882	0.96		
2176	1700	453	0.33	508	0.39	563	0.46	608	0.52	645	0.56	678	0.61	753	0.75	825	0.89	890	1.04		
2304	1800	474	0.39	525	0.45	579	0.52	624	0.59	663	0.64	695	0.69	763	0.81	833	0.97	900	1.12	1014	1.43
2432	1900	495	0.45	542	0.51	594	0.59	640	0.66	680	0.73	714	0.78	774	0.88	842	1.04	907	1.21	1023	1.54
2560	2000	517	0.52	561	0.58	610	0.67	656	0.74	696	0.81	731	0.87	789	0.97	852	1.12	915	1.30	1033	1.64
2688	2100	538	0.60	580	0.66	625	0.74	672	0.82	712	0.90	748	0.97	807	1.08	862	1.20	924	1.38	1040	1.75
2816	2200	560	0.68	599	0.74	642	0.82	687	0.92	728	1.00	764	1.08	825	1.21	876	1.31	934	1.48	1048	1.87
2944	2300	582	0.77	619	0.83	659	0.91	703	1.02	744	1.10	780	1.19	843	1.33	893	1.45	945	1.58	1055	1.98
3072	2400	605	0.87	639	0.94	678	1.01	718	1.11	759	1.21	796	1.30	860	1.46	911	1.59	958	1.71	1064	2.10
3200	2500	627	0.98	660	1.04	697	1.12	734	1.22	774	1.34	812	1.42	876	1.60	930	1.75	975	1.87	1074	2.23
3328	2600	649	1.09	681	1.16	716	1.24	752	1.33	790	1.46	827	1.55	892	1.74	947	1.91	993	2.04	1085	2.37
3456	2700	672	1.22	703	1.29	735	1.37	770	1.46	805	1.57	842	1.69	908	1.89	964	2.07	1012	2.22	1096	2.51
3584	2800	694	1.35	725	1.43	755	1.51	788	1.60	822	1.71	858	1.85	924	2.05	980	2.24	1029	2.41	1111	2.69
3711	2900	717	1.50	746	1.58	775	1.66	807	1.74	839	1.85	874	1.99	939	2.21	996	2.42	1046	2.61	1129	2.91
3839	3000	740	1.65	768	1.74	796	1.82	826	1.90	857	2.00	889	2.13	955	2.38	1012	2.61	1063	2.81		

V-BELT DRIVE #1. RPM RANGE 276-394; #2. 370-546; #3. 547-700; #4. 461-557; #5. 508-612; #6. 539-674; #7. 598-741; #8. 667-833; #9. 572-684; #10. 635-767; #11. 726-919; #12. 875-1075; #13. 1025-1150. PERFORMANCE IS FOR UTILITY FAN WITH OUTLET DUCT. BHP DOES NOT INCLUDE LOSSES.

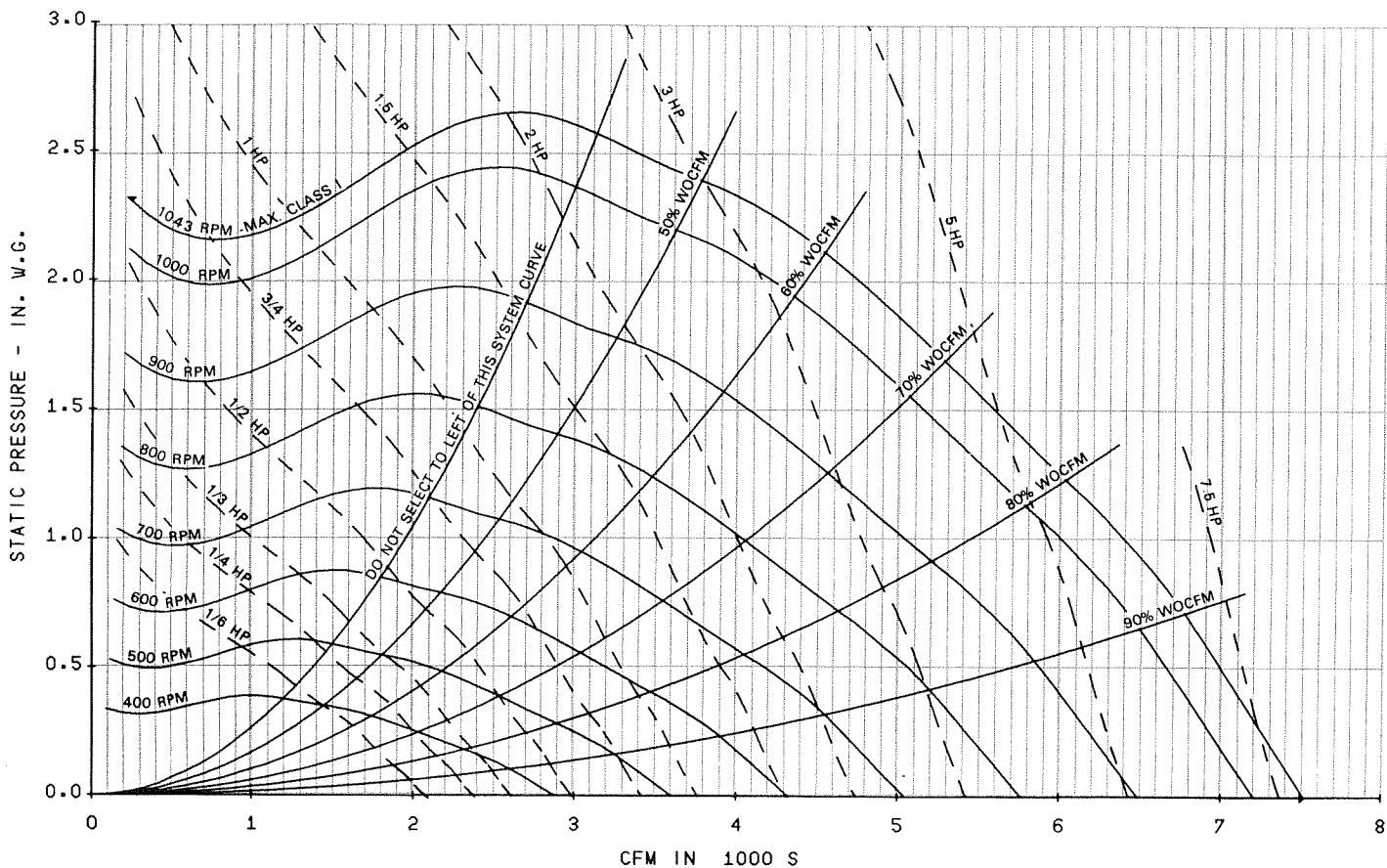


16 FC (Wheel Dia. 16½" Tip Speed FPM = 4.32 x RPM Maximum RPM 1043 Outlet Area 1.56 Sq. Ft.)

VOL. CFM	OUT. VEL. FPM	1/8" S.P.		1/4" S.P.		3/8" S.P.		1/2" S.P.		5/8" S.P.		3/4" S.P.		1" S.P.		1 1/4" S.P.		1 1/2" S.P.		2" S.P.	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
1248	800	270	0.07	339	0.10	401	0.15														
1404	900	285	0.09	348	0.12	409	0.17														
1560	1000	299	0.11	360	0.15	416	0.20	462	0.22	470	0.25	516	0.30								
1716	1100	313	0.14	376	0.19	425	0.23	477	0.29	523	0.34	565	0.40								
1872	1200	328	0.17	392	0.22	437	0.26	485	0.32	531	0.38	573	0.45								
2028	1300	343	0.20	407	0.27	453	0.31	494	0.36	538	0.43	581	0.50	655	0.64						
2184	1400	360	0.25	421	0.31	469	0.37	507	0.41	547	0.48	588	0.55	664	0.70	728	0.84				
2340	1500	378	0.29	435	0.37	485	0.43	523	0.48	557	0.53	596	0.61	671	0.77	736	0.93				
2496	1600	395	0.35	450	0.43	499	0.50	539	0.56	572	0.60	606	0.67	677	0.84	744	1.01	803	1.18		
2652	1700	414	0.41	464	0.48	514	0.57	555	0.64	588	0.69	618	0.74	686	0.91	751	1.09	810	1.27		
2808	1800	433	0.48	479	0.55	528	0.64	569	0.72	605	0.79	634	0.85	695	0.99	758	1.18	819	1.37	923	1.75
2964	1900	453	0.56	495	0.63	542	0.73	584	0.81	620	0.89	651	0.96	705	1.08	766	1.27	825	1.48	931	1.88
3120	2000	473	0.64	513	0.71	556	0.82	599	0.91	635	1.00	667	1.07	719	1.19	776	1.37	833	1.58	940	2.01
3276	2100	493	0.74	530	0.81	571	0.91	613	1.01	649	1.11	682	1.19	736	1.33	786	1.47	841	1.69	947	2.14
3432	2200	513	0.84	548	0.91	586	1.01	627	1.13	664	1.23	697	1.32	753	1.48	799	1.61	851	1.82	954	2.28
3588	2300	533	0.95	566	1.03	602	1.12	641	1.25	678	1.35	711	1.46	769	1.64	815	1.78	861	1.94	961	2.42
3744	2400	553	1.08	585	1.15	619	1.24	655	1.37	692	1.49	726	1.60	784	1.80	831	1.96	874	2.10	969	2.57
3900	2500	574	1.21	604	1.29	637	1.38	670	1.49	707	1.64	740	1.75	799	1.97	848	2.15	890	2.30	978	2.73
4056	2600	594	1.35	623	1.44	654	1.53	686	1.64	721	1.79	754	1.91	813	2.14	864	2.34	906	2.51	989	2.90
4212	2700	615	1.51	643	1.60	672	1.69	703	1.79	735	1.93	769	2.09	828	2.33	879	2.55	923	2.74		
4368	2800	635	1.67	663	1.77	690	1.86	720	1.97	750	2.10	783	2.27	843	2.52	894	2.76	939	2.97		
4524	2900	656	1.85	683	1.95	708	2.04	738	2.15	766	2.27	797	2.45	857	2.72	908	2.98				
4680	3000	677	2.04	703	2.15	727	2.24	755	2.35	783	2.47	812	2.62	871	2.93						

V-BELT DRIVE #1. RPM RANGE 245-327; #2. 328-490; #3. 455-576; #4. 395-525; #5. 526-630; #6. 445-592; #7. 593-700; #8. 510-641; #9. 635-766; #10. 545-663; #11. 626-700; #12. 677-825; #13. 694-842; #14. 767-941.

PERFORMANCE IS FOR UTILITY FAN WITH OUTLET DUCT. BHP DOES NOT INCLUDE LOSSES.

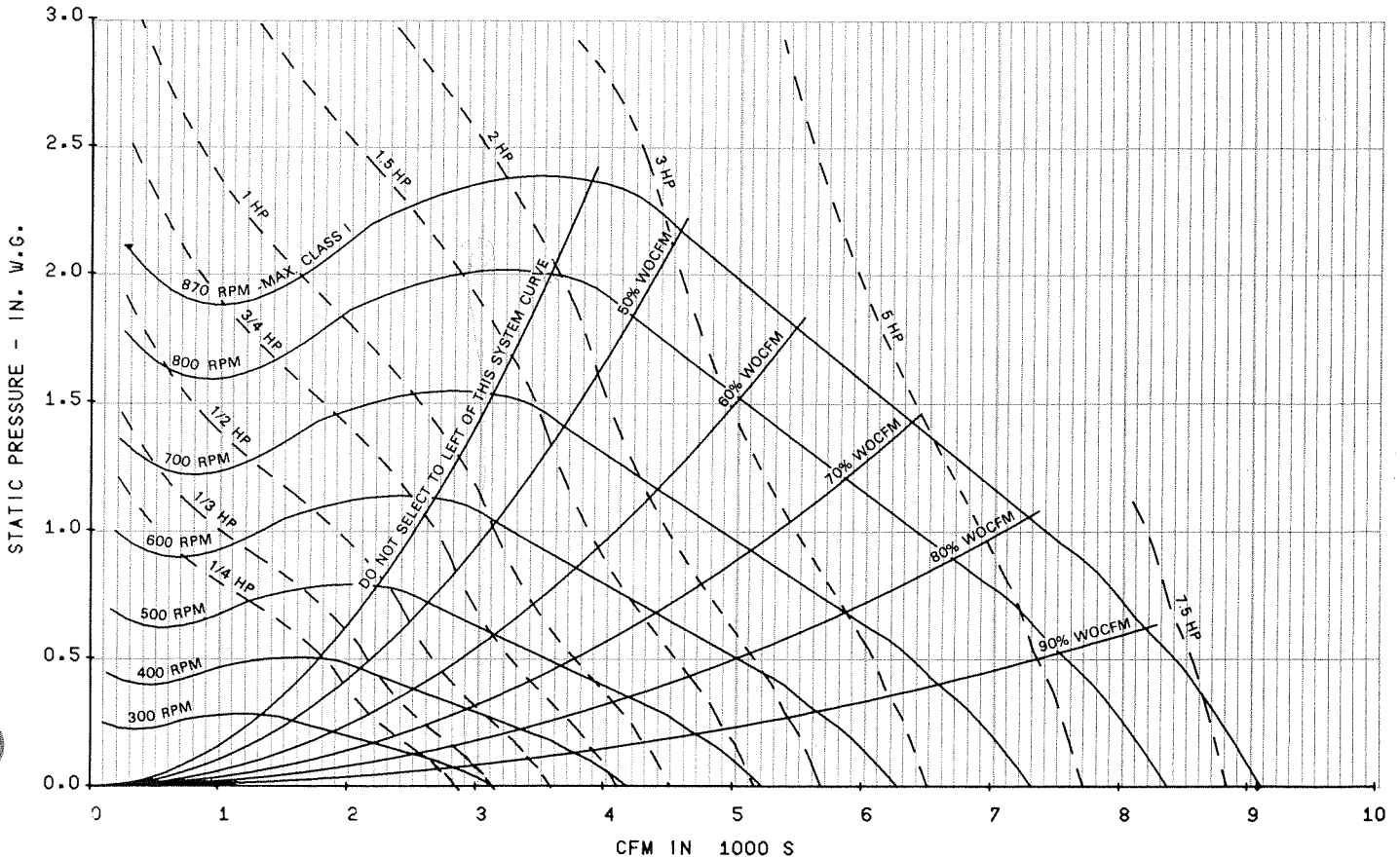


18 FC (Wheel Dia. 18 1/4" Tip Speed FPM = 4.78 x RPM Maximum RPM 870 Outlet Area 1.90 Sq. Ft.)

VOL. CFM	OUT. VEL. FPM	1/8" S.P.		1/4" S.P.		3/8" S.P.		1/2" S.P.		5/8" S.P.		3/4" S.P.		1" S.P.		1 1/4" S.P.		1 1/2" S.P.		2" S.P.		
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	
1520	800	242	0.09	293	0.12																	
1710	900	254	0.11	309	0.15	351	0.18															
1900	1000	266	0.13	324	0.19	362	0.23	403	0.27													
2090	1100	277	0.16	338	0.23	378	0.28	411	0.31	449	0.36											
2280	1200	288	0.19	350	0.27	393	0.33	425	0.38	457	0.42	492	0.48									
2470	1300	299	0.23	362	0.32	408	0.39	441	0.45	469	0.49	499	0.54									
2660	1400	311	0.27	374	0.37	421	0.45	456	0.52	484	0.58	510	0.62	569	0.74							
2850	1500	324	0.32	385	0.42	433	0.52	471	0.60	500	0.67	525	0.72	576	0.83	633	0.98					
3040	1600	338	0.37	397	0.48	444	0.59	484	0.68	516	0.77	541	0.83	587	0.94	638	1.07					
3230	1700	353	0.44	408	0.55	456	0.66	496	0.77	530	0.86	557	0.94	601	1.07	646	1.19	696	1.35			
3420	1800	369	0.51	419	0.62	468	0.74	507	0.86	543	0.96	572	1.06	617	1.21	658	1.33	702	1.48			
3610	1900	385	0.59	430	0.70	479	0.83	519	0.95	554	1.07	585	1.18	633	1.36	672	1.49	712	1.63	801	1.98	
3800	2000	401	0.68	442	0.78	490	0.92	531	1.06	566	1.18	598	1.30	648	1.51	688	1.67	724	1.80	805	2.13	
3990	2100	416	0.77	455	0.88	501	1.02	543	1.17	577	1.30	609	1.43	663	1.67	704	1.85	740	2.01	813	2.32	
4180	2200	432	0.88	468	0.98	512	1.13	554	1.28	590	1.43	621	1.57	676	1.83	719	2.04	755	2.21	822	2.52	
4370	2300	448	0.99	483	1.10	524	1.25	565	1.40	601	1.56	632	1.71	689	1.99	735	2.24	771	2.43	835	2.75	
4560	2400	465	1.12	498	1.23	535	1.37	576	1.54	612	1.70	644	1.86	701	2.16	749	2.44	786	2.66	849	3.01	
4750	2500	482	1.25	515	1.38	548	1.50	587	1.68	624	1.85	656	2.03	712	2.34	762	2.63	803	2.90	866	3.30	
4940	2600	499	1.40	531	1.54	561	1.65	598	1.83	635	2.01	668	2.19	724	2.53	774	2.84	816	3.13			
5130	2700	516	1.56	547	1.70	574	1.82	610	1.99	646	2.18	679	2.36	735	2.72	785	3.05	829	3.37			
5320	2800	533	1.74	562	1.87	589	1.99	621	2.16	657	2.36	690	2.55	748	2.93	797	3.28	842	3.61			
5510	2900	550	1.92	578	2.06	604	2.19	634	2.34	668	2.55	701	2.74	759	3.15	808	3.52	854	3.86			
5700	3000	568	2.12	593	2.24	621	2.41	647	2.54	680	2.75	712	2.96	771	3.37	820	3.76	865	4.12			

V-BELT DRIVE #1. RPM RANGE 222-315; #2. 350-490; #3. 277-408; #4. 338-443; #5. 444-573; #6. 420-514; #7. 510-625; #8. 401-525; #9. 500-614; #10. 615-718; #11. 561-629; #12. 620-735; #13. 676-809; #14. 753-875.

PERFORMANCE IS FOR UTILITY FAN WITH OUTLET DUCT. BHP DOES NOT INCLUDE LOSSES.

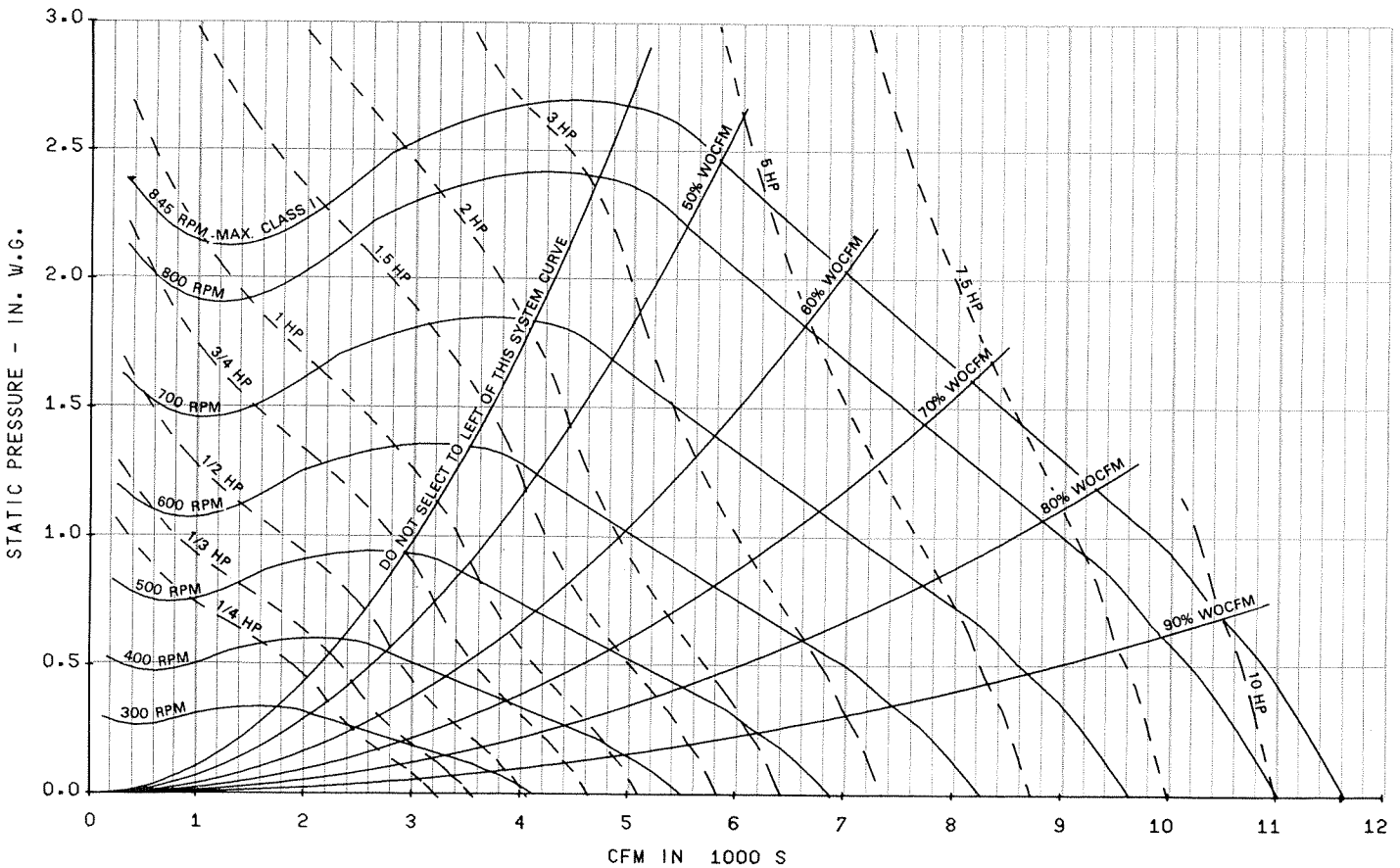


20 FC (Wheel Dia. 20" Tip Speed FPM = 5.24 x RPM Maximum RPM 845 Outlet Area 2.32 Sq. Ft.)

VOL. CFM	OUT. VEL. FPM	1/8" S.P.		1/4" S.P.		3/8" S.P.		1/2" S.P.		5/8" S.P.		3/4" S.P.		1" S.P.		1 1/4" S.P.		1 1/2" S.P.		2" S.P.	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
1855	800	222	0.11	269	0.15	316	0.19														
2088	900	233	0.13	284	0.19	322	0.23														
2320	1000	244	0.16	298	0.23	332	0.28	368	0.33												
2552	1100	255	0.20	311	0.28	347	0.34	377	0.39	411	0.45										
2784	1200	265	0.24	322	0.33	362	0.41	391	0.47	419	0.52	450	0.59								
3015	1300	275	0.29	332	0.39	375	0.49	405	0.56	430	0.61	457	0.67								
3247	1400	286	0.34	344	0.46	387	0.56	420	0.65	445	0.72	468	0.78	520	0.92						
3479	1500	298	0.40	354	0.52	397	0.64	433	0.75	460	0.83	483	0.90	528	1.03	579	1.20				
3711	1600	312	0.47	365	0.60	408	0.73	445	0.84	474	0.95	498	1.03	539	1.17	584	1.33	633	1.52		
3943	1700	327	0.55	375	0.68	419	0.82	455	0.95	487	1.07	512	1.17	553	1.33	592	1.48	636	1.66		
4176	1800	341	0.64	385	0.77	430	0.92	466	1.06	498	1.19	526	1.32	567	1.51	604	1.65	643	1.83		
4408	1900	356	0.74	396	0.87	441	1.03	477	1.18	509	1.33	538	1.46	582	1.68	618	1.86	653	2.02	732	2.44
4640	2000	370	0.85	407	0.97	451	1.14	488	1.31	520	1.47	549	1.61	597	1.88	632	2.08	665	2.24	737	2.63
4872	2100	385	0.97	419	1.10	461	1.27	499	1.45	530	1.62	560	1.77	610	2.07	647	2.30	680	2.50	745	2.86
5104	2200	400	1.10	432	1.23	471	1.41	509	1.59	542	1.78	570	1.95	622	2.26	662	2.53	694	2.75	754	3.12
5336	2300	415	1.25	446	1.38	482	1.55	520	1.75	553	1.94	581	2.13	633	2.46	676	2.78	709	3.02	767	3.42
5568	2400	430	1.40	461	1.56	493	1.71	530	1.92	563	2.12	593	2.32	644	2.68	688	3.02	723	3.30	781	3.76
5799	2500	446	1.58	476	1.74	505	1.88	540	2.09	574	2.30	603	2.51	654	2.90	700	3.26	738	3.60	796	4.10
6031	2600	462	1.76	491	1.93	517	2.07	550	2.28	584	2.50	614	2.72	665	3.14	711	3.52	750	3.89	811	4.45
6263	2700	478	1.97	505	2.13	530	2.27	561	2.48	594	2.71	624	2.93	676	3.38	721	3.79	762	4.17	825	4.81
6495	2800	494	2.19	520	2.35	544	2.50	572	2.69	604	2.94	635	3.17	687	3.64	732	4.07	773	4.47		
6727	2900	510	2.42	534	2.57	558	2.74	584	2.93	615	3.17	645	3.41	698	3.91	743	4.36	784	4.79		
6959	3000	526	2.67	548	2.82	574	3.02	597	3.18	626	3.42	655	3.68	708	4.18	753	4.67				

V-BELT DRIVE #1. RPM RANGE 222-315, #2. 257-376; #3. 275-385; #4. 377-484; #5. 326-422; #6. 423-525; #7. 370-471; #8. 461-573; #9. 397-501; #10. 496-627; #11. 467-573; #12. 571-653; #13. 494-564; #14. 565-686; #15. 687-825.

PERFORMANCE IS FOR UTILITY FAN WITH OUTLET DUCT. BHP DOES NOT INCLUDE LOSSES.



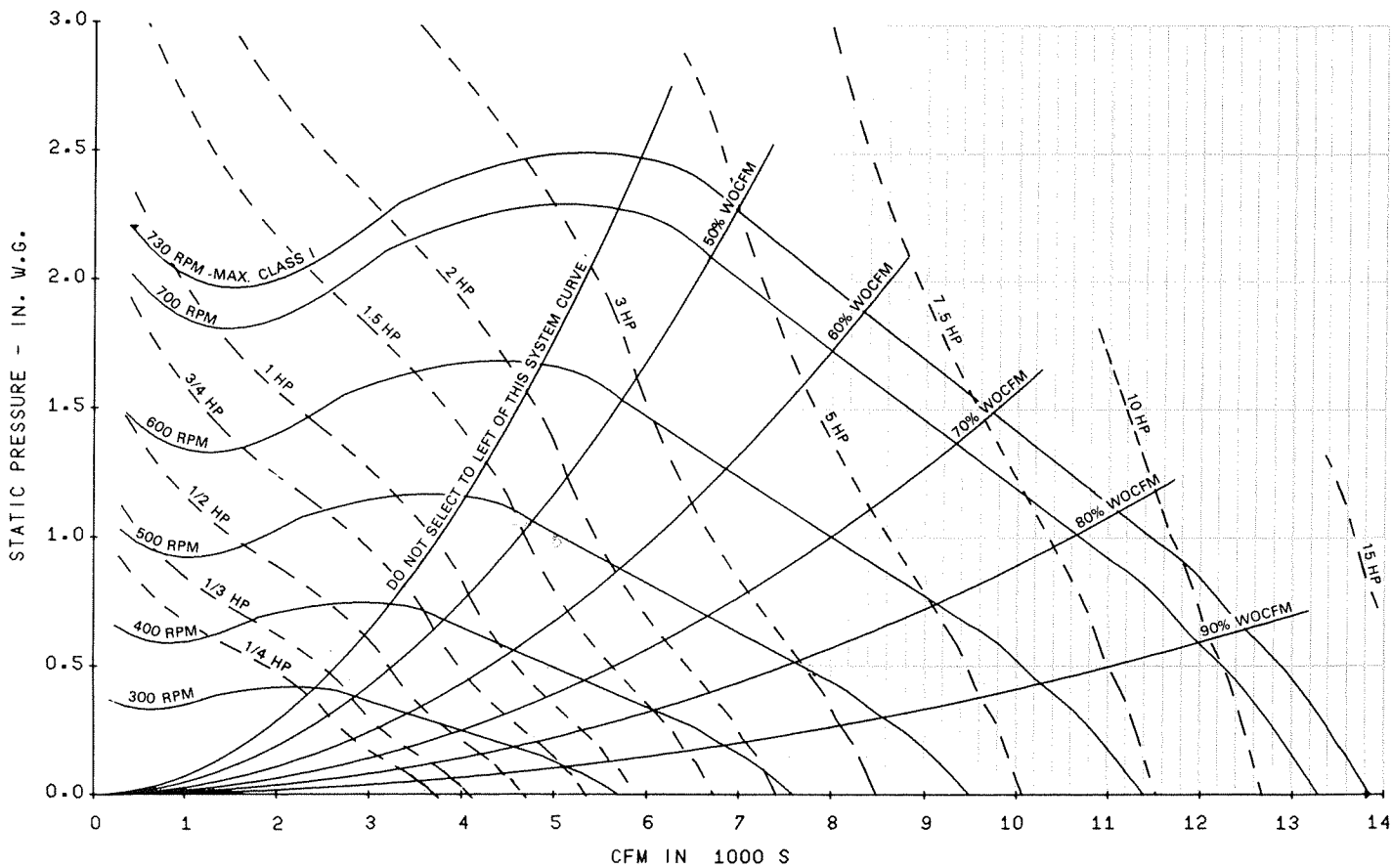


22 FC (Wheel Dia. 22 1/4" Tip Speed FPM = 5.83 x RPM Maximum RPM 730 Outlet Area 2.83 Sq. Ft.)

VOL. CFM	OUT. VEL. FPM	1/8" S.P.		1/4" S.P.		3/8" S.P.		1/2" S.P.		5/8" S.P.		3/4" S.P.		1" S.P.		1 1/4" S.P.		1 1/2" S.P.		2" S.P.	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
2264	800	199	0.13	241	0.18																
2547	900	208	0.16	253	0.23	288	0.28														
2830	1000	218	0.20	266	0.28	297	0.34	330	0.40												
3112	1100	227	0.24	278	0.34	310	0.41	338	0.47	369	0.54										
3395	1200	236	0.29	288	0.40	323	0.50	349	0.56	375	0.63	404	0.71								
3678	1300	246	0.34	297	0.47	335	0.58	362	0.67	385	0.73	410	0.81								
3961	1400	255	0.40	307	0.55	346	0.67	375	0.78	398	0.86	419	0.93								
4245	1500	266	0.47	316	0.63	355	0.77	387	0.90	411	1.00	431	1.08	467	1.11	520	1.46				
4528	1600	277	0.56	326	0.72	365	0.87	397	1.02	424	1.14	444	1.24	482	1.40	523	1.60				
4811	1700	290	0.65	335	0.81	375	0.99	407	1.14	435	1.29	457	1.41	494	1.60	530	1.78	571	2.01		
5094	1800	303	0.77	344	0.92	384	1.11	417	1.28	445	1.44	470	1.59	507	1.81	540	1.99	576	2.20		
5377	1900	316	0.89	353	1.04	393	1.23	426	1.42	455	1.60	480	1.76	520	2.02	552	2.24	584	2.43	657	2.96
5660	2000	329	1.02	363	1.17	403	1.37	436	1.58	465	1.77	491	1.94	532	2.25	565	2.49	594	2.69	661	3.18
5943	2100	342	1.15	374	1.31	412	1.52	445	1.74	474	1.94	500	2.13	545	2.49	578	2.76	607	3.00	667	3.45
6225	2200	355	1.31	385	1.47	421	1.69	455	1.91	484	2.14	510	2.34	555	2.73	591	3.04	620	3.31	675	3.76
6508	2300	368	1.48	397	1.65	430	1.86	464	2.10	494	2.34	519	2.56	566	2.97	604	3.34	633	3.63	685	4.11
6791	2400	382	1.67	409	1.84	439	2.04	473	2.29	503	2.54	529	2.79	575	3.22	615	3.63	646	3.96	698	4.51
7074	2500	396	1.87	423	2.07	450	2.25	482	2.51	512	2.76	539	3.02	585	3.49	625	3.93	659	4.32	711	4.92
7357	2600	410	2.09	436	2.30	461	2.47	491	2.74	521	3.00	548	3.27	594	3.77	635	4.23	670	4.68	723	5.34
7640	2700	424	2.34	449	2.54	472	2.71	501	2.98	530	3.25	558	3.53	604	4.07	645	4.55	681	5.03		
7923	2800	438	2.60	462	2.80	484	2.98	510	3.22	539	3.52	567	3.80	614	4.38	654	4.90	691	5.38		
8207	2900	452	2.87	475	3.08	496	3.27	521	3.50	548	3.80	576	4.09	623	4.70	664	5.25	701	5.76		
8490	3000	466	3.17	487	3.35	510	3.60	532	3.80	558	4.10	585	4.41	633	5.03	673	5.61	710	6.16		

V-BELT DRIVE #1. RPM RANGE 185-272; #2. 234-326; #3. 243-323; #4. 324-408; #5. 272-360; #6. 350-425; #7. 350-431; #8. 329-419; #9. 420-502; #11. 382-476; #12. 477-583; #13. 409-494; #14. 485-561; #15. 555-660; #16. 463-516; #17. 515-605; #18. 606-712; #19. 690-735.

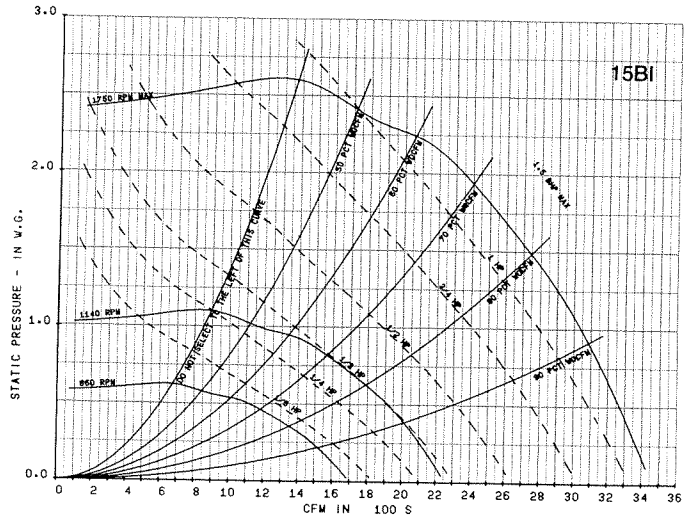
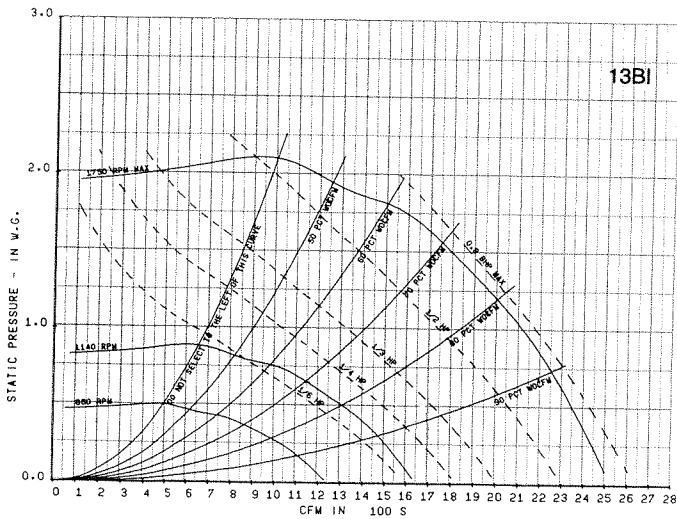
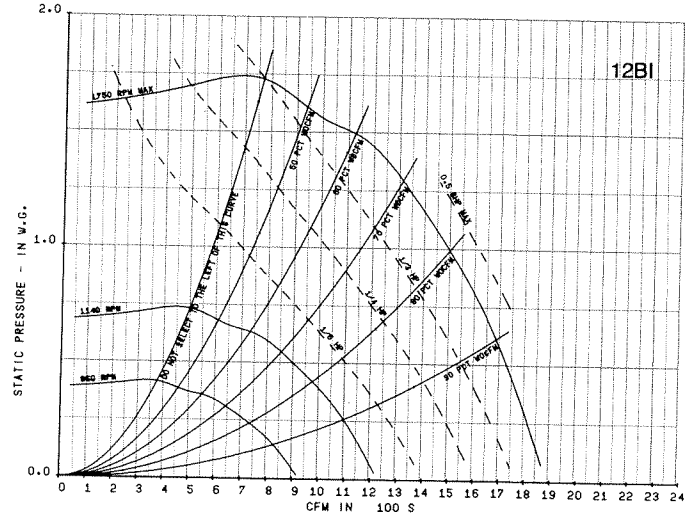
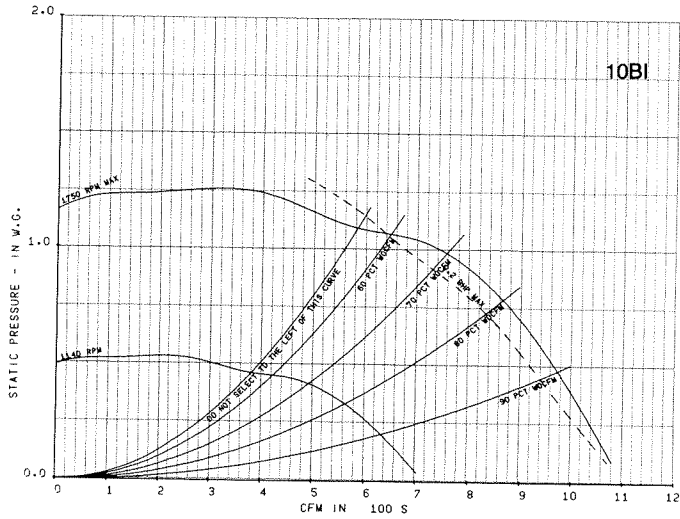
PERFORMANCE IS FOR UTILITY FAN WITH OUTLET DUCT. BHP DOES NOT INCLUDE LOSSES.



Direct Drive BI Utility Fans

FAN NO.	WHEEL DIA.	MOTOR RPM	MOTOR HP (MAX BHP)	0" SP		1/8" SP		1/4" SP		3/8" SP		1/2" SP		3/4" SP		1" SP		1 1/2" SP		
				CFM	OV	CFM	OV	CFM	OV	CFM	OV	CFM	OV	CFM	OV	CFM	OV	CFM	OV	CFM
10EX	10 1/2"	1140	1/8	715	1122	677	1062	630	990	550	863									
10FY	10 1/2"	1725	1/6	1085	1703	1052	1650	1020	1600	984	1545	947	1486	854	1340	701	1100			
12DW	12 1/4"	860	1/20	930	1080	842	978	722	838											
12EW	12 1/4"	1140	1/8	1230	1430	1168	1357	1097	1275	1013	1177	908	1055							
12KY	12 1/4"	1725	1/2 (.420)	1860	2160	1822	2117	1790	2080	1754	2038	1710	1987	1590	1848	1450	1685	1025	1190	
13EW	13 1/2"	860	1/8	1245	1186	1154	1100	1035	986	845	805									
13GX	13 1/2"	1140	1/4	1640	1562	1574	1500	1501	1430	1420	1353	1311	1250	1023	975					
13LY	13 1/2"	1725	3/4 (.690)	2495	2378	2448	2332	2410	2296	2356	2245	2309	2200	2096	2076	1978	1732	1650		
15EW	15"	860	1/8	1710	1337	1600	1250	1478	1155	1325	1036	1114	870							
15HX	15"	1140	1/3 (.331)	2245	1755	2180	1705	2103	1644	2013	1575	1919	1500	1660	1298	1187	9280			
15MY	15"	1725	1 (1.00)	3420	2675	3368	2635													
15NY	15"	1725	1 1/2 (1.15)					3328	2600	3269	2560	3217	2515	3103	2425	2982	2330	2666	2085	

PERFORMANCE IS FOR UTILITY FAN WITH OUTLET DUCT. BHP DOES NOT INCLUDE LOSSES.

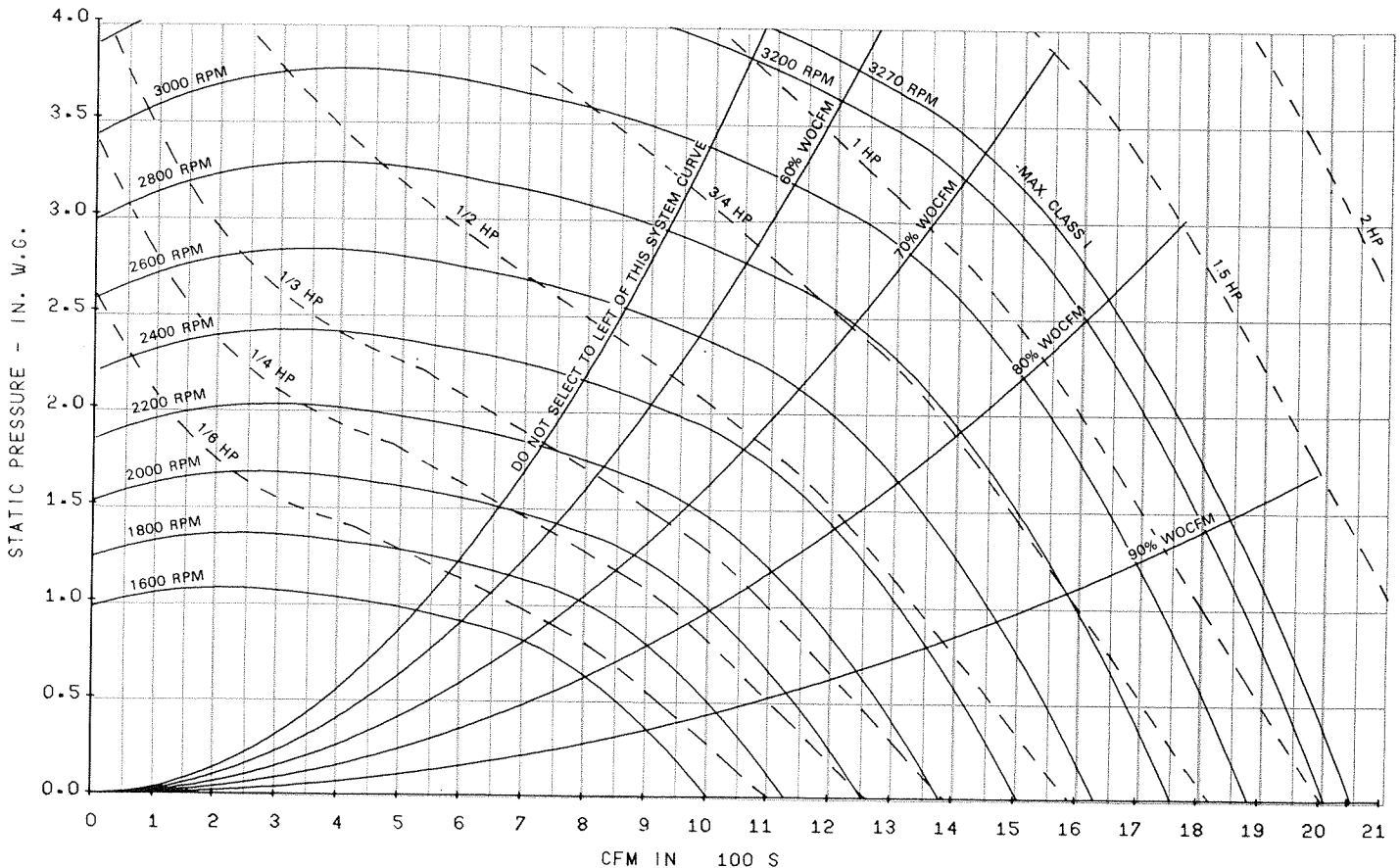


10 BI (Wheel Dia. 10½" Tip Speed FPM = 2.75 x RPM Maximum RPM 3270 Outlet Area .638 Sq. Ft.)

VOL. CFM	OUT. VEL. FPM	1/8" S.P.		1/4" S.P.		3/8" S.P.		1/2" S.P.		3/4" S.P.		1" S.P.		1 1/2" S.P.		2" S.P.		2 1/2" S.P.		3" S.P.	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
510	800	914	0.03	1016	0.04	1120	0.05	1228	0.06	1457	0.09										
574	900	1004	0.03	1094	0.05	1186	0.06	1280	0.07	1476	0.11	1679	0.14								
638	1000	1096	0.04	1178	0.06	1260	0.07	1342	0.08	1513	0.12	1697	0.16								
701	1100	1191	0.06	1265	0.07	1339	0.08	1413	0.10	1566	0.13	1724	0.17	2056	0.26						
765	1200	1286	0.07	1354	0.08	1422	0.10	1490	0.11	1627	0.15	1771	0.19	2074	0.28						
829	1300	1383	0.09	1445	0.10	1507	0.12	1570	0.13	1696	0.17	1825	0.21	2095	0.31	2378	0.40				
893	1400	1480	0.11	1537	0.12	1596	0.14	1654	0.16	1771	0.19	1888	0.23	2133	0.33	2397	0.44	2651	0.54		
957	1500	1578	0.13	1631	0.14	1686	0.16	1740	0.18	1848	0.22	1958	0.26	2185	0.36	2419	0.47	2666	0.58		
1020	1600	1676	0.15	1726	0.17	1777	0.19	1828	0.21	1929	0.25	2032	0.29	2240	0.39	2456	0.50	2687	0.63	2914	0.74
1084	1700	1775	0.18	1822	0.20	1869	0.22	1918	0.24	2013	0.28	2109	0.33	2303	0.42	2505	0.54	2711	0.67	2933	0.80
1148	1800	1874	0.21	1918	0.23	1963	0.25	2008	0.28	2098	0.32	2189	0.36	2371	0.46	2560	0.58	2751	0.71	2952	0.85
1212	1900	1973	0.24	2015	0.27	2057	0.29	2100	0.31	2186	0.36	2271	0.41	2443	0.51	2619	0.62	2801	0.76	2983	0.89
1276	2000	2073	0.28	2113	0.31	2152	0.33	2193	0.35	2275	0.40	2356	0.45	2519	0.56	2684	0.67	2855	0.80	3026	0.95
1339	2100	2173	0.32	2211	0.35	2249	0.38	2286	0.40	2365	0.45	2442	0.50	2597	0.61	2753	0.73	2913	0.86	3078	1.00
1403	2200	2273	0.37	2309	0.40	2345	0.42	2381	0.45	2456	0.50	2530	0.56	2677	0.67	2827	0.79	2976	0.92	3133	1.06
1467	2300	2373	0.42	2407	0.45	2442	0.48	2476	0.50	2547	0.56	2619	0.62	2759	0.73	2902	0.85	3045	0.98	3191	1.12
1531	2400	2473	0.48	2506	0.51	2539	0.53	2573	0.56	2639	0.62	2708	0.68	2843	0.80	2979	0.92	3116	1.05	3254	1.20
1595	2500	2573	0.54	2605	0.57	2637	0.60	2669	0.63	2733	0.68	2799	0.75	2928	0.87	3059	0.99	3190	1.13		
1658	2600	2674	0.60	2704	0.63	2735	0.66	2766	0.69	2827	0.75	2889	0.82	3015	0.94	3140	1.08	3266	1.21		
1722	2700	2774	0.67	2804	0.70	2833	0.73	2863	0.77	2922	0.83	2981	0.89	3103	1.03	3223	1.16				
1786	2800	2875	0.74	2903	0.78	2932	0.81	2960	0.85	3017	0.91	3074	0.98	3192	1.12						
1850	2900	2976	0.82	3003	0.86	3031	0.89	3058	0.93	3113	1.00	3168	1.07								
1914	3000	3076	0.91	3103	0.95	3129	0.98	3156	1.02	3209	1.09	3262	1.16								

V-BELT DRIVE #1. RPM RANGE 875-1208; #2. 1200-1600; #3. 1601-1900; #4. 1696-2100; #5. 2050-2500; #6. 2400-2750; #7. 2700-3150; #8. 3050-3300.

PERFORMANCE IS FOR UTILITY FAN WITH OUTLET DUCT. BHP DOES NOT INCLUDE LOSSES.

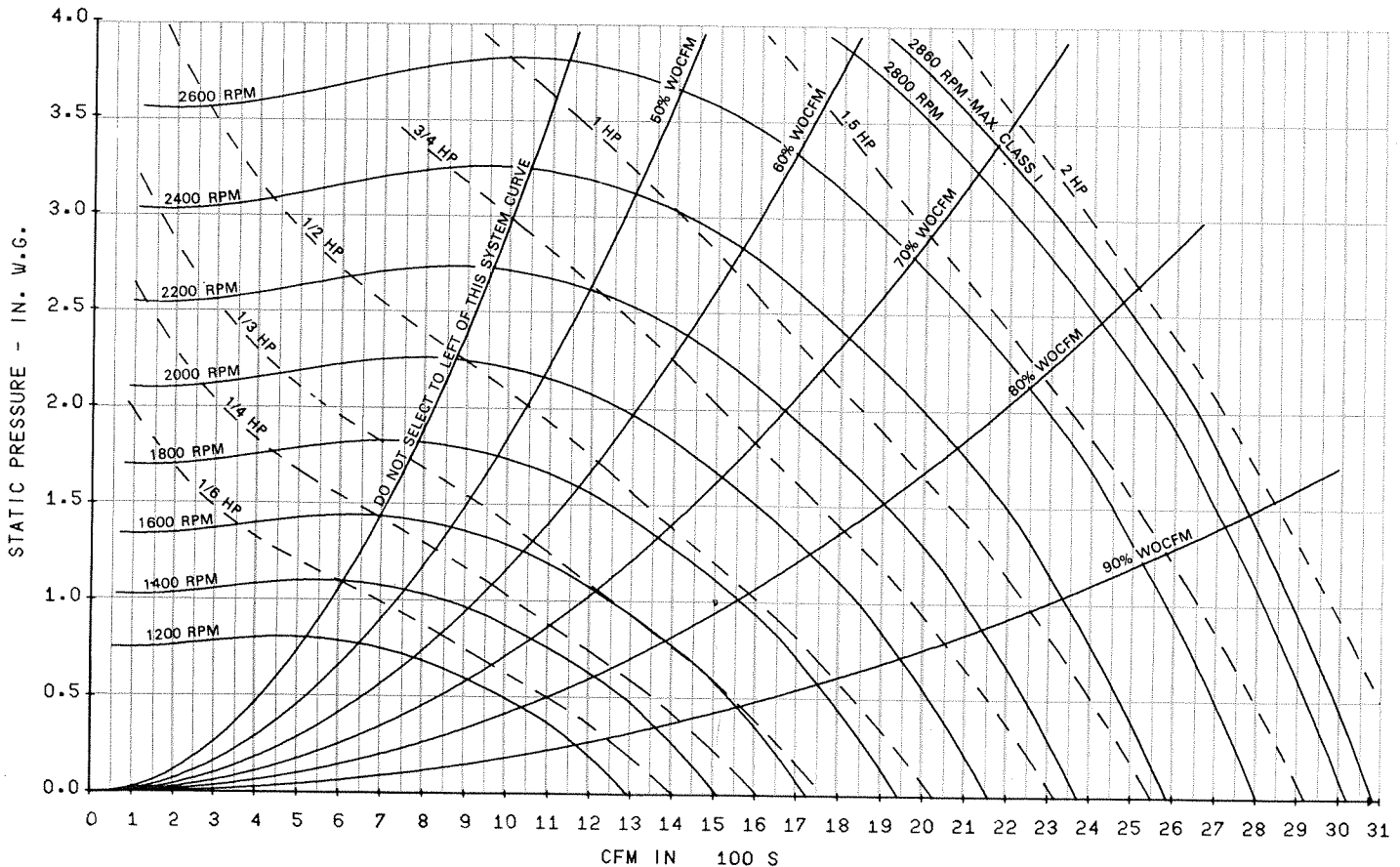


12 BI (Wheel Dia. 12 1/4" Tip Speed FPM = 3.21 x RPM Maximum RPM 2860 Outlet Area 0.86 Sq. Ft.)

VOL. CFM	OUT. VEL. FPM	1/8" S.P.		1/4" S.P.		3/8" S.P.		1/2" S.P.		3/4" S.P.		1" S.P.		1 1/2" S.P.		2" S.P.		2 1/2" S.P.		3" S.P.	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
688	800	735	0.03	838	0.05	935	0.07	1024	0.08	1211	0.12	1357	0.16								
774	900	804	0.04	894	0.06	984	0.08	1068	0.10	1233	0.14	1390	0.19								
860	1000	875	0.05	954	0.07	1037	0.09	1117	0.11	1262	0.16	1417	0.21	1641	0.28						
946	1100	947	0.07	1018	0.09	1094	0.11	1168	0.13	1307	0.18	1440	0.23	1702	0.34	1889	0.43				
1032	1200	1021	0.08	1087	0.10	1153	0.13	1223	0.15	1356	0.20	1478	0.25	1730	0.37	1943	0.50	2128	0.62	2310	0.77
1118	1300	1096	0.10	1157	0.12	1216	0.15	1281	0.17	1406	0.23	1525	0.28	1751	0.40	1976	0.54	2159	0.67	2328	0.81
1204	1400	1171	0.13	1227	0.15	1282	0.17	1341	0.20	1459	0.25	1572	0.31	1780	0.44	2000	0.58	2191	0.72	2354	0.87
1290	1500	1247	0.15	1299	0.17	1352	0.20	1403	0.22	1515	0.28	1623	0.35	1823	0.48	2021	0.62	2222	0.77	2389	0.93
1376	1600	1323	0.18	1372	0.20	1422	0.23	1469	0.26	1573	0.32	1676	0.38	1871	0.52	2049	0.67	2244	0.83	2423	0.99
1462	1700	1400	0.21	1446	0.24	1493	0.27	1539	0.29	1633	0.36	1732	0.42	1919	0.57	2091	0.72	2266	0.88	2447	1.05
1548	1800	1478	0.25	1521	0.28	1564	0.30	1609	0.33	1695	0.40	1789	0.47	1969	0.62	2136	0.78	2295	0.94	2467	1.12
1634	1900	1555	0.29	1596	0.32	1637	0.35	1679	0.38	1759	0.44	1848	0.52	2021	0.67	2185	0.84	2337	1.00	2492	1.18
1720	2000	1633	0.33	1671	0.36	1711	0.40	1750	0.43	1828	0.49	1908	0.57	2075	0.73	2234	0.90	2382	1.08	2525	1.25
1806	2100	1711	0.38	1747	0.41	1785	0.45	1822	0.48	1897	0.55	1970	0.62	2131	0.79	2285	0.97	2432	1.15	2569	1.34
1892	2200	1789	0.44	1824	0.47	1859	0.50	1895	0.54	1967	0.61	2036	0.69	2188	0.86	2337	1.04	2480	1.23	2614	1.42
1978	2300	1867	0.50	1900	0.53	1934	0.57	1968	0.60	2037	0.68	2105	0.75	2247	0.93	2391	1.11	2529	1.31	2663	1.51
2064	2400	1945	0.56	1977	0.60	2010	0.63	2042	0.67	2108	0.75	2174	0.83	2307	1.00	2447	1.20	2581	1.40	2711	1.61
2150	2500	2024	0.63	2054	0.67	2085	0.71	2117	0.74	2180	0.82	2243	0.91	2369	1.08	2504	1.28	2634	1.49	2761	1.70
2236	2600	2102	0.71	2132	0.75	2161	0.78	2191	0.82	2252	0.91	2313	0.99	2431	1.17	2562	1.37	2689	1.58	2813	1.80
2322	2700	2181	0.79	2209	0.83	2238	0.87	2267	0.91	2325	1.00	2383	1.08	2497	1.27	2621	1.47	2745	1.69		
2408	2800	2260	0.88	2287	0.92	2314	0.96	2342	1.00	2398	1.09	2454	1.18	2564	1.37	2681	1.57	2802	1.80		
2494	2900	2339	0.97	2365	1.01	2391	1.06	2418	1.10	2472	1.19	2526	1.28	2635	1.48	2743	1.68	2860	1.91		
2580	3000	2418	1.08	2443	1.12	2468	1.16	2494	1.21	2546	1.30	2599	1.39	2704	1.59	2806	1.80				

V-BELT DRIVE #1. RPM RANGE 735-973; #2. 950-1400; #3. 1250-1650; #4. 1450-1850; #5. 1800-2150; #6. 2100-2450; #7. 2300-2550; #8. 2459-2664; #9. 2650-2900.

PERFORMANCE IS FOR UTILITY FAN WITH OUTLET DUCT. BHP DOES NOT INCLUDE LOSSES.

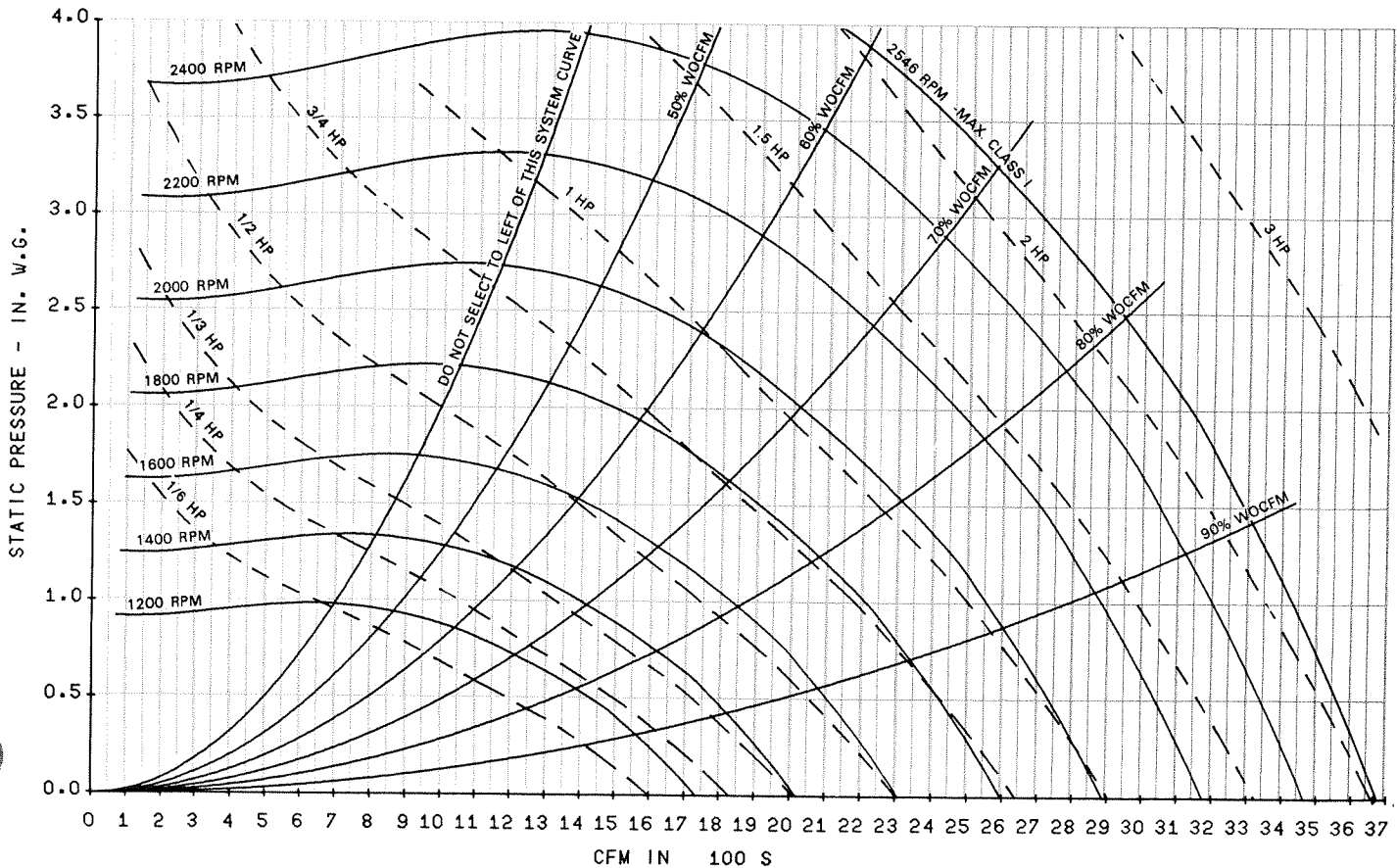


13 BI (Wheel Dia. 13½" Tip Speed FPM = 3.54 x RPM Maximum RPM 2546 Outlet Area 1.05 Sq. Ft.)

VOL. CFM	OUT. VEL. FPM	1/8" S.P.		1/4" S.P.		3/8" S.P.		1/2" S.P.		3/4" S.P.		1" S.P.		1½" S.P.		2" S.P.		2½" S.P.		3" S.P.	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
840	800	669	0.04	763	0.06	851	0.08	931	0.10	1100	0.15	1232	0.20								
945	900	733	0.05	814	0.07	896	0.09	971	0.12	1120	0.17	1264	0.23								
1050	1000	797	0.07	869	0.09	944	0.11	1016	0.14	1147	0.19	1286	0.25	1490	0.35						
1154	1100	864	0.08	927	0.11	996	0.13	1063	0.16	1188	0.22	1308	0.28	1546	0.42	1715	0.52				
1259	1200	931	0.10	990	0.13	1050	0.15	1113	0.18	1233	0.25	1343	0.31	1571	0.45	1765	0.61	1932	0.76	2097	0.94
1364	1300	999	0.13	1054	0.15	1107	0.18	1166	0.21	1279	0.28	1386	0.35	1590	0.49	1795	0.66	1961	0.82	2113	0.99
1469	1400	1068	0.15	1118	0.18	1169	0.21	1221	0.24	1328	0.31	1430	0.38	1617	0.54	1817	0.71	1990	0.88	2141	1.06
1574	1500	1137	0.19	1184	0.21	1232	0.24	1278	0.28	1379	0.35	1477	0.42	1658	0.59	1836	0.76	2018	0.95	2170	1.14
1680	1600	1207	0.22	1251	0.25	1296	0.28	1338	0.32	1432	0.39	1525	0.47	1701	0.64	1862	0.81	2038	1.01	2201	1.21
1785	1700	1277	0.26	1318	0.29	1360	0.33	1402	0.36	1487	0.44	1576	0.52	1745	0.70	1901	0.88	2058	1.08	2222	1.28
1890	1800	1347	0.31	1386	0.34	1426	0.37	1466	0.41	1543	0.49	1628	0.57	1791	0.76	1942	0.95	2086	1.15	2240	1.36
1995	1900	1418	0.36	1455	0.39	1492	0.43	1530	0.47	1603	0.54	1682	0.63	1839	0.82	1987	1.02	2125	1.23	2264	1.45
2100	2000	1489	0.41	1524	0.45	1559	0.49	1595	0.53	1666	0.61	1738	0.70	1888	0.89	2032	1.10	2166	1.32	2295	1.53
2204	2100	1560	0.47	1593	0.51	1627	0.55	1661	0.59	1729	0.68	1794	0.77	1939	0.97	2078	1.18	2211	1.41	2335	1.63
2309	2200	1631	0.54	1663	0.58	1695	0.62	1727	0.66	1792	0.75	1854	0.84	1992	1.05	2126	1.27	2255	1.50	2377	1.74
2414	2300	1703	0.61	1733	0.65	1763	0.70	1794	0.74	1857	0.83	1917	0.93	2045	1.14	2175	1.36	2301	1.60	2422	1.85
2519	2400	1774	0.69	1803	0.74	1832	0.78	1862	0.83	1921	0.92	1980	1.02	2100	1.23	2227	1.47	2348	1.71	2466	1.96
2624	2500	1846	0.78	1873	0.82	1901	0.87	1930	0.92	1986	1.01	2044	1.11	2157	1.33	2279	1.57	2397	1.82		
2729	2600	1918	0.87	1944	0.92	1971	0.97	1998	1.02	2053	1.12	2108	1.22	2214	1.44	2332	1.69	2447	1.94		
2834	2700	1989	0.98	2015	1.02	2041	1.07	2067	1.12	2119	1.22	2172	1.33	2274	1.55	2386	1.80				
2939	2800	2061	1.08	2086	1.13	2110	1.18	2136	1.23	2186	1.34	2237	1.45	2338	1.68	2441	1.93				
3044	2900	2133	1.20	2157	1.25	2181	1.30	2205	1.36	2253	1.47	2302	1.58	2400	1.81						
3149	3000	2205	1.33	2228	1.38	2251	1.43	2274	1.49	2321	1.60	2369	1.71	2464	1.96						

V-BELT DRIVE #1. RPM RANGE 665-980; #2. 950-1400; #3. 1250-1650; #4. 1550-1850; #5. 1851-2000; #6. 1790-2295; #7. 2250-2500.

PERFORMANCE IS FOR UTILITY FAN WITH OUTLET DUCT. BHP DOES NOT INCLUDE LOSSES.

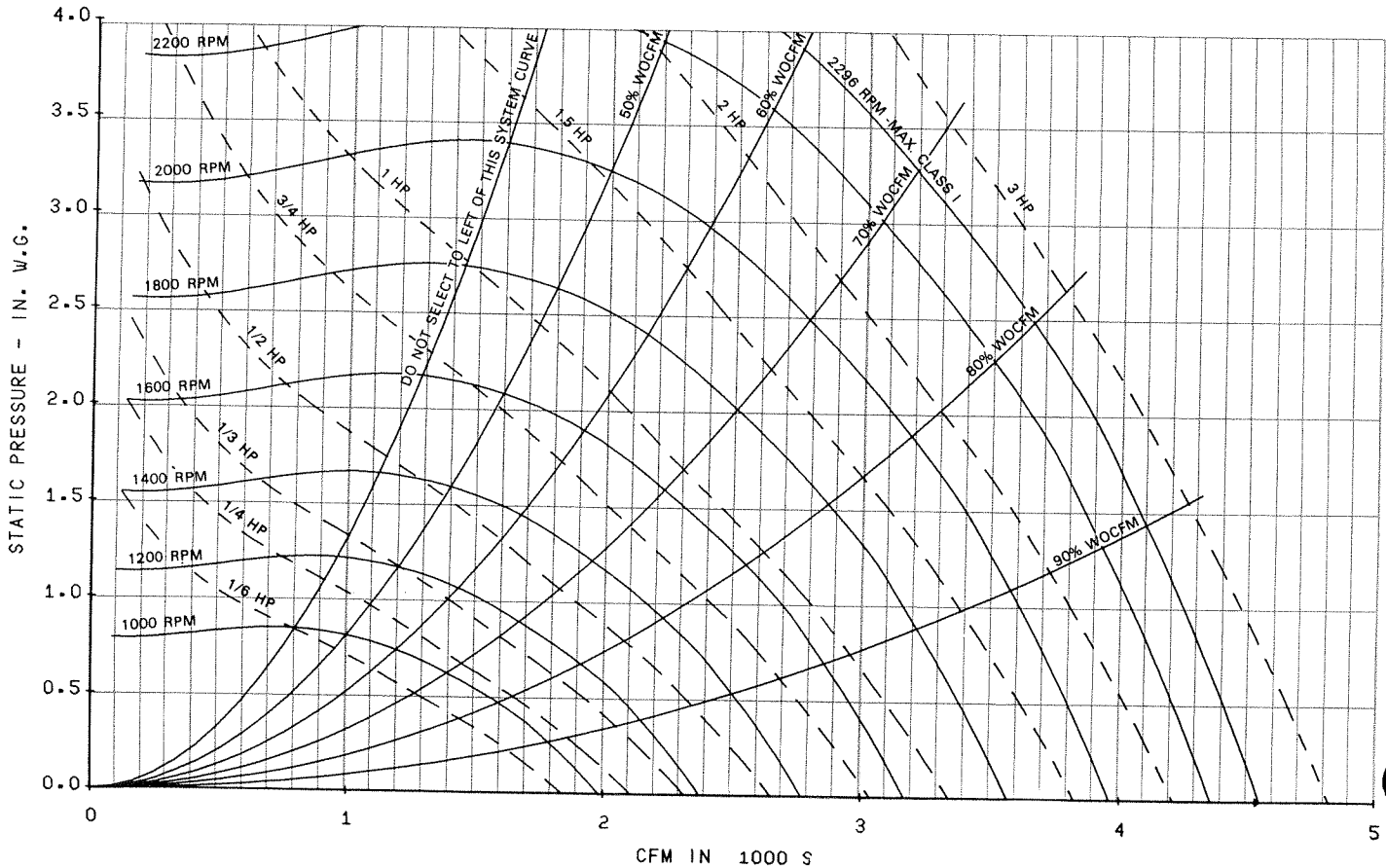


15 BI (Wheel Dia. 15" Tip Speed FPM = 3.93 x RPM Maximum RPM 2296 Outlet Area 1.28 Sq. Ft.)

VOL. CFM	OUT. VEL. FPM	1/8" S.P.		1/4" S.P.		3/8" S.P.		1/2" S.P.		3/4" S.P.		1" S.P.		1 1/2" S.P.		2" S.P.		2 1/2" S.P.		3" S.P.		
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	
1023	800	597	0.05	682	0.07	762	0.10	835	0.12	988	0.18	1107	0.25									
1152	900	653	0.06	727	0.09	801	0.11	870	0.14	1006	0.21	1134	0.28	1339	0.42							
1280	1000	710	0.08	776	0.10	844	0.13	909	0.17	1029	0.23	1156	0.31	1360	0.46	1542	0.64					
1408	1100	769	0.10	827	0.13	890	0.16	951	0.19	1064	0.26	1174	0.34	1388	0.51	1558	0.68	1722	0.88			
1536	1200	829	0.12	883	0.15	938	0.19	995	0.22	1104	0.30	1204	0.38	1411	0.55	1584	0.74	1736	0.93	1886	1.15	
1664	1300	889	0.15	939	0.18	988	0.22	1041	0.25	1145	0.33	1240	0.42	1428	0.60	1612	0.80	1761	1.00	1898	1.22	
1792	1400	950	0.18	996	0.22	1041	0.25	1090	0.29	1187	0.38	1280	0.47	1450	0.65	1632	0.86	1786	1.08	1920	1.29	
1919	1500	1012	0.22	1055	0.26	1098	0.29	1140	0.33	1232	0.42	1321	0.51	1485	0.71	1649	0.92	1812	1.15	1948	1.38	
2047	1600	1074	0.26	1114	0.30	1155	0.34	1193	0.38	1279	0.47	1364	0.57	1523	0.78	1670	0.99	1830	1.23	1976	1.48	
2176	1700	1136	0.31	1174	0.35	1212	0.39	1250	0.43	1327	0.53	1409	0.63	1562	0.84	1703	1.07	1848	1.31	1996	1.57	
2304	1800	1198	0.37	1234	0.41	1270	0.45	1306	0.49	1378	0.59	1455	0.69	1602	0.92	1739	1.15	1870	1.39	2012	1.66	
2432	1900	1261	0.42	1295	0.47	1329	0.51	1363	0.56	1429	0.65	1502	0.76	1645	0.99	1779	1.24	1904	1.49	2032	1.76	
2560	2000	1324	0.49	1356	0.54	1388	0.58	1421	0.63	1485	0.73	1551	0.84	1688	1.08	1818	1.33	1940	1.60	2057	1.86	
2688	2100	1387	0.56	1417	0.61	1448	0.66	1479	0.71	1541	0.81	1601	0.92	1733	1.17	1859	1.43	1980	1.71	2092	1.98	
2816	2200	1451	0.64	1479	0.69	1508	0.74	1538	0.79	1597	0.90	1654	1.01	1779	1.27	1902	1.54	2019	1.82	2129	2.11	
2944	2300	1514	0.73	1541	0.78	1569	0.83	1597	0.89	1654	1.00	1708	1.11	1827	1.37	1945	1.65	2059	1.94	2169	2.25	
3072	2400	1577	0.83	1604	0.88	1630	0.93	1657	0.99	1711	1.10	1765	1.22	1875	1.48	1990	1.77	2101	2.07	2207	2.38	
3200	2500	1641	0.93	1666	0.98	1692	1.04	1717	1.10	1769	1.21	1821	1.34	1925	1.60	2036	1.90	2143	2.20	2247	2.52	
3328	2600	1705	1.04	1729	1.10	1753	1.15	1778	1.21	1828	1.34	1878	1.46	1975	1.73	2083	2.03	2187	2.35	2289	2.68	
3456	2700	1769	1.16	1792	1.22	1815	1.28	1839	1.34	1887	1.47	1935	1.60	2028	1.87	2131	2.18	2233	2.50			
3584	2800	1832	1.29	1855	1.35	1877	1.41	1900	1.47	1946	1.60	1993	1.74	2083	2.02	2180	2.33	2279	2.66			
3711	2900	1896	1.43	1918	1.49	1939	1.55	1962	1.62	2006	1.75	2051	1.89	2140	2.18	2230	2.49					
3839	3000	1960	1.58	1981	1.64	2002	1.70	2023	1.77	2066	1.91	2109	2.05	2196	2.35	2280	2.66					

V-BELT DRIVE #1. RPM RANGE 583-860; #2. 833-1167; #3. 1042-1291; #4. 1166-1417; #5. 1418-1793; #6. 1667-2000; #7. 1880-2230; #8. 2060-2319.

PERFORMANCE IS FOR UTILITY FAN WITH OUTLET DUCT. BHP DOES NOT INCLUDE LOSSES.

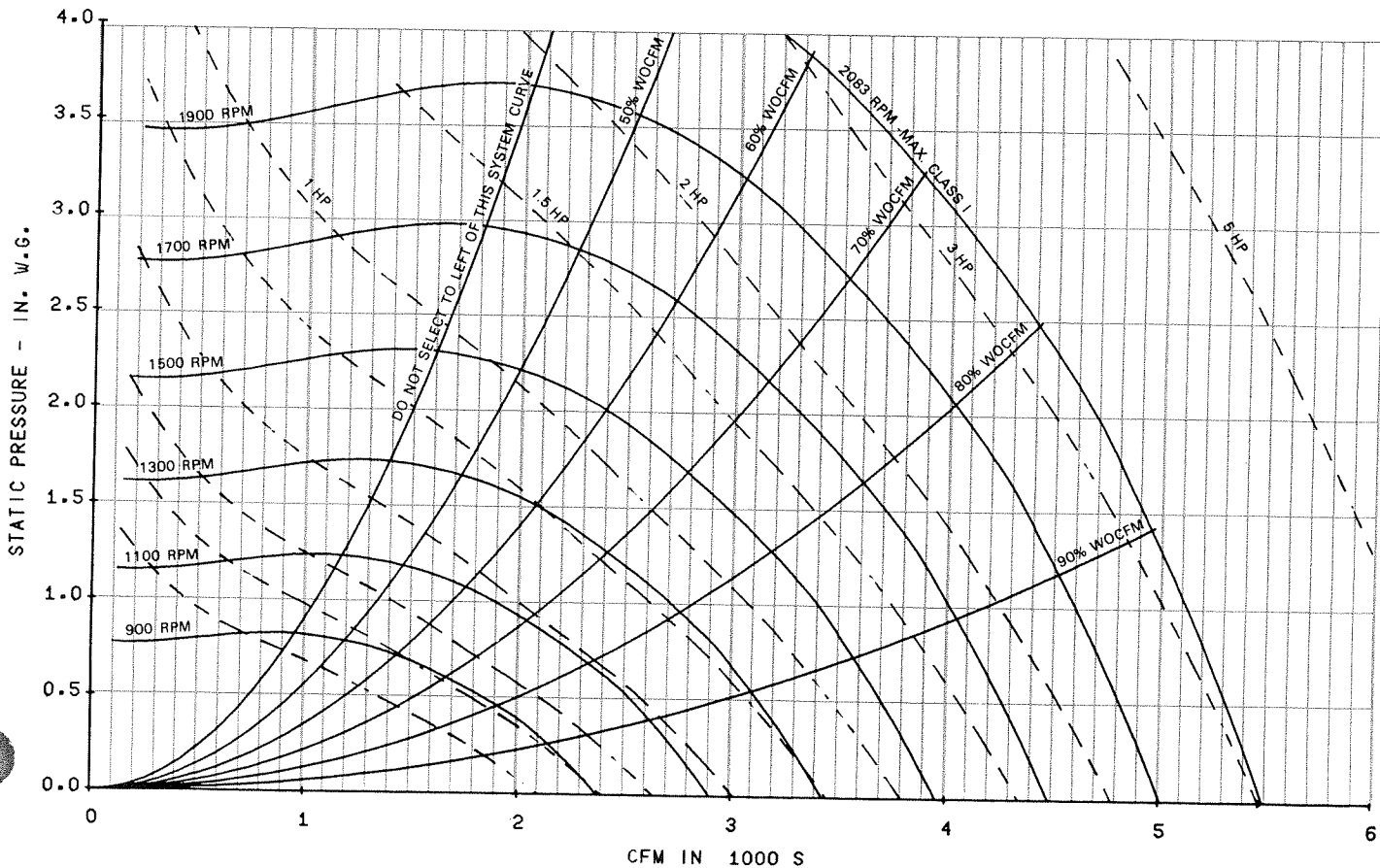


16 BI (Wheel Dia. 16½" Tip Speed FPM = 4.32 x RPM Maximum RPM 2043 Outlet Area 1.56 Sq. Ft.)

VOL. CFM	OUT. VEL. FPM	1/8" S.P.		1/4" S.P.		3/8" S.P.		1/2" S.P.		3/4" S.P.		1" S.P.		1 1/2" S.P.		2" S.P.		2 1/2" S.P.		3" S.P.	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
1248	800	545	0.06	622	0.09	694	0.12	761	0.15	899	0.22	1007	0.30								
1404	900	597	0.08	664	0.11	731	0.14	793	0.18	916	0.25	1032	0.34								
1560	1000	650	0.10	708	0.13	770	0.17	829	0.20	937	0.28	1052	0.37	1218	0.52						
1716	1100	703	0.12	756	0.16	812	0.19	867	0.24	970	0.32	1069	0.41	1264	0.62	1402	0.77				
1872	1200	758	0.15	807	0.19	856	0.23	908	0.27	1006	0.36	1097	0.46	1284	0.67	1442	0.90	1580	1.13	1715	1.40
2028	1300	813	0.19	859	0.22	902	0.27	951	0.31	1044	0.41	1132	0.51	1300	0.73	1467	0.97	1603	1.22	1728	1.48
2184	1400	869	0.23	911	0.27	952	0.31	995	0.36	1083	0.46	1167	0.57	1321	0.79	1485	1.05	1626	1.31	1748	1.57
2340	1500	926	0.27	965	0.32	1004	0.36	1041	0.41	1125	0.52	1205	0.63	1353	0.87	1501	1.13	1650	1.40	1774	1.69
2496	1600	982	0.33	1019	0.37	1056	0.42	1091	0.47	1168	0.58	1244	0.70	1389	0.95	1521	1.21	1666	1.50	1799	1.80
2652	1700	1040	0.38	1074	0.43	1108	0.48	1142	0.53	1212	0.64	1286	0.77	1424	1.03	1552	1.30	1682	1.60	1817	1.91
2808	1800	1097	0.45	1129	0.50	1161	0.55	1194	0.61	1258	0.72	1328	0.85	1461	1.12	1586	1.41	1704	1.70	1831	2.03
2964	1900	1154	0.52	1185	0.58	1215	0.63	1246	0.69	1306	0.80	1372	0.93	1500	1.22	1622	1.52	1735	1.82	1850	2.15
3120	2000	1212	0.61	1241	0.66	1270	0.72	1299	0.78	1357	0.90	1417	1.03	1540	1.32	1658	1.63	1769	1.95	1874	2.27
3276	2100	1270	0.70	1297	0.75	1325	0.81	1353	0.87	1408	1.00	1463	1.13	1582	1.43	1696	1.75	1805	2.09	1907	2.42
3432	2200	1328	0.79	1354	0.85	1380	0.91	1407	0.98	1460	1.11	1511	1.24	1624	1.55	1735	1.88	1841	2.23	1941	2.58
3588	2300	1386	0.90	1411	0.96	1436	1.03	1461	1.09	1512	1.23	1562	1.37	1668	1.68	1775	2.02	1878	2.38	1977	2.75
3744	2400	1444	1.02	1468	1.08	1492	1.15	1516	1.22	1565	1.36	1613	1.50	1713	1.82	1816	2.17	1916	2.53	2013	2.91
3900	2500	1502	1.15	1525	1.21	1548	1.28	1571	1.35	1618	1.50	1665	1.64	1758	1.97	1859	2.33	1956	2.70	2050	3.09
4056	2600	1561	1.29	1582	1.35	1605	1.42	1627	1.49	1672	1.64	1717	1.80	1805	2.12	1902	2.49	1996	2.87		
4212	2700	1619	1.44	1640	1.50	1661	1.58	1683	1.65	1726	1.80	1769	1.96	1853	2.29	1945	2.67	2038	3.07		
4368	2800	1678	1.60	1698	1.67	1718	1.74	1739	1.82	1780	1.98	1822	2.14	1904	2.48	1991	2.85	2080	3.26		
4524	2900	1736	1.77	1755	1.84	1775	1.92	1795	2.00	1835	2.16	1875	2.33	1956	2.68	2037	3.05				
4680	3000	1795	1.95	1813	2.03	1832	2.10	1851	2.19	1890	2.35	1929	2.53	2007	2.89	2083	3.26				

V-BELT DRIVE #1. RPM RANGE 522-705; #2. 706-932; #3. 893-1193; #4. 1190-1508; #5. 1400-1540; #6. 1510-1750; #7. 1715-1920; #8. 1879-2035; #9. 2020-2120.

PERFORMANCE IS FOR UTILITY FAN WITH OUTLET DUCT. BHP DOES NOT INCLUDE LOSSES.

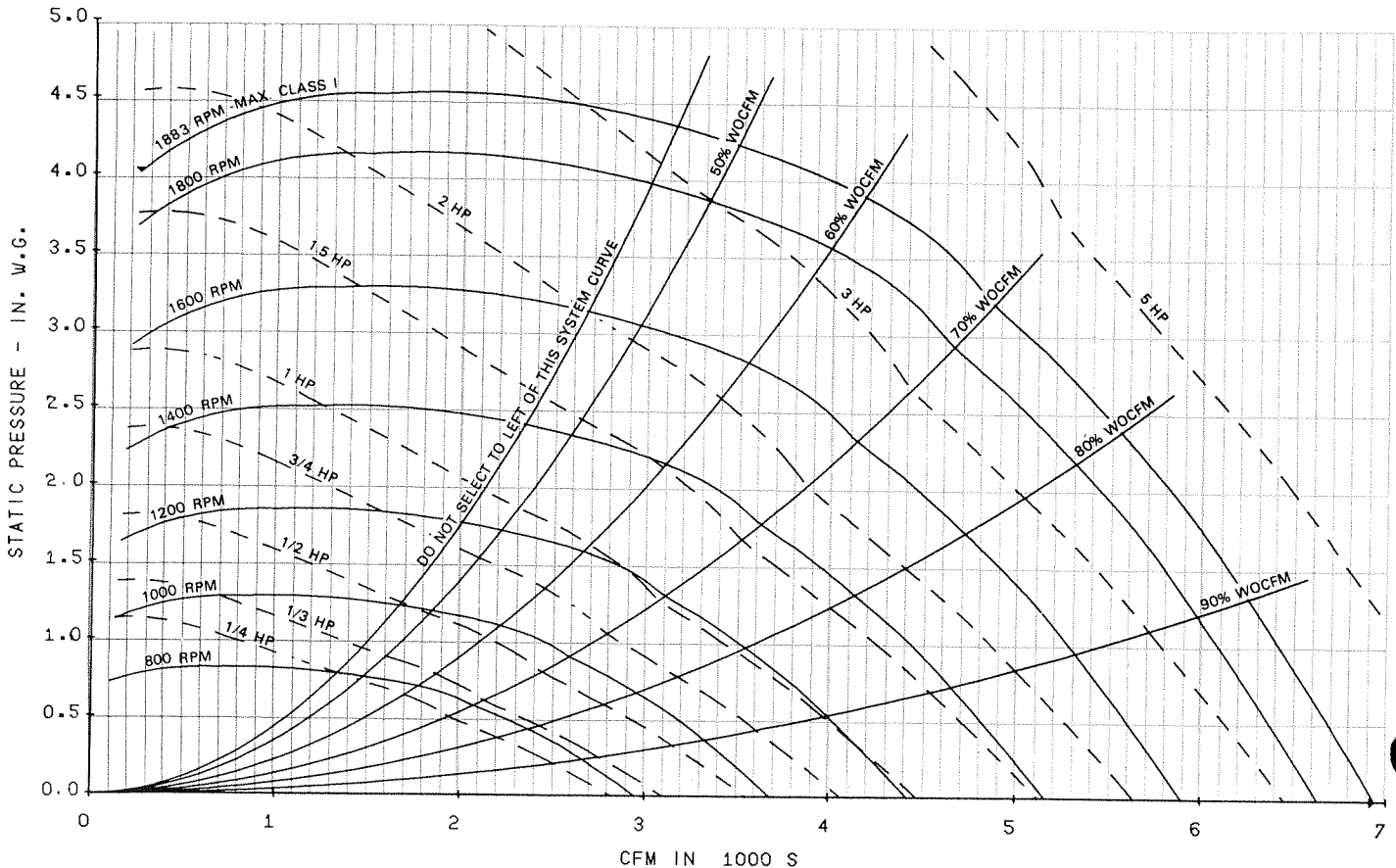


18 BI (Wheel Dia. 18 1/4" Tip Speed FPM = 4.78 x RPM Maximum RPM 1883 Outlet Area 1.90 Sq. Ft.)

VOL. CFM	OUT. VEL. FPM	1/8" S.P.		1/4" S.P.		3/8" S.P.		1/2" S.P.		3/4" S.P.		1" S.P.		1 1/2" S.P.		2" S.P.		2 1/2" S.P.		3" S.P.	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
1520	800	485	0.07	555	0.10	617	0.14	679	0.17	799	0.27	910	0.37								
1710	900	529	0.09	593	0.13	653	0.17	705	0.20	815	0.29	920	0.40								
1900	1300	575	0.11	632	0.15	687	0.20	741	0.24	836	0.33	935	0.43	1117	0.69						
2090	1100	621	0.14	672	0.18	725	0.23	774	0.28	862	0.37	953	0.48	1127	0.74						
2280	1200	669	0.17	715	0.22	764	0.27	811	0.32	898	0.43	977	0.53	1141	0.79	1294	1.09				
2470	1300	717	0.21	760	0.26	804	0.31	848	0.37	932	0.49	1005	0.59	1158	0.85	1304	1.15	1443	1.50		
2660	1400	765	0.26	806	0.31	846	0.36	888	0.42	967	0.55	1043	0.67	1179	0.92	1320	1.22	1452	1.57	1578	1.94
2850	1500	813	0.31	852	0.36	889	0.42	928	0.48	1004	0.61	1076	0.75	1205	1.00	1337	1.30	1464	1.65	1588	2.03
3040	1600	862	0.37	899	0.42	934	0.48	969	0.54	1042	0.68	1111	0.83	1234	1.10	1357	1.40	1481	1.74	1598	2.12
3230	1700	911	0.43	947	0.49	980	0.56	1013	0.62	1081	0.76	1148	0.91	1272	1.22	1382	1.51	1499	1.84	1614	2.22
3420	1800	961	0.50	995	0.57	1027	0.64	1057	0.70	1122	0.85	1185	1.01	1307	1.34	1409	1.63	1520	1.97	1631	2.34
3610	1900	1011	0.59	1043	0.66	1073	0.72	1103	0.79	1162	0.94	1224	1.11	1340	1.45	1443	1.77	1545	2.11	1650	2.48
3800	2000	1060	0.68	1091	0.75	1120	0.82	1149	0.89	1205	1.04	1263	1.21	1375	1.57	1482	1.94	1572	2.25	1672	2.64
3990	2100	1111	0.78	1140	0.85	1168	0.93	1195	1.00	1248	1.16	1304	1.33	1412	1.70	1516	2.09	1605	2.43	1698	2.80
4180	2200	1161	0.88	1189	0.96	1216	1.04	1242	1.12	1293	1.28	1344	1.46	1450	1.84	1549	2.24	1644	2.64	1725	2.98
4370	2300	1211	1.00	1238	1.08	1264	1.17	1289	1.25	1339	1.42	1387	1.59	1488	1.99	1584	2.40	1679	2.83	1758	3.19
4560	2400	1261	1.13	1287	1.22	1313	1.30	1337	1.39	1384	1.57	1430	1.74	1528	2.15	1621	2.58	1711	3.01	1797	3.44
4750	2500	1312	1.27	1336	1.36	1361	1.45	1385	1.54	1431	1.72	1474	1.90	1568	2.32	1659	2.76	1746	3.21	1832	3.68
4940	2600	1363	1.43	1386	1.51	1410	1.61	1433	1.70	1477	1.89	1519	2.08	1608	2.50	1697	2.95	1782	3.41	1865	3.89
5130	2700	1414	1.59	1436	1.68	1459	1.78	1481	1.88	1524	2.07	1566	2.27	1649	2.69	1736	3.15	1819	3.64		
5320	2800	1465	1.77	1486	1.86	1508	1.96	1530	2.06	1571	2.26	1612	2.47	1691	2.89	1775	3.37	1856	3.87		
5510	2900	1515	1.96	1536	2.05	1556	2.15	1578	2.26	1619	2.47	1658	2.68	1734	3.11	1816	3.60				
5700	3000	1566	2.16	1586	2.26	1606	2.36	1627	2.47	1667	2.69	1705	2.91	1778	3.35	1856	3.84				

V-BELT DRIVE #1. RPM RANGE 475-650; #2. 640-875; #3. 842-1042; #4. 954-1178; #5. 1075-1225; #6. 1175-1449; #7. 1375-1583; #8. 1513-1750; #9. 1690-1910.

PERFORMANCE IS FOR UTILITY FAN WITH OUTLET DUCT. BHP DOES NOT INCLUDE LOSSES.



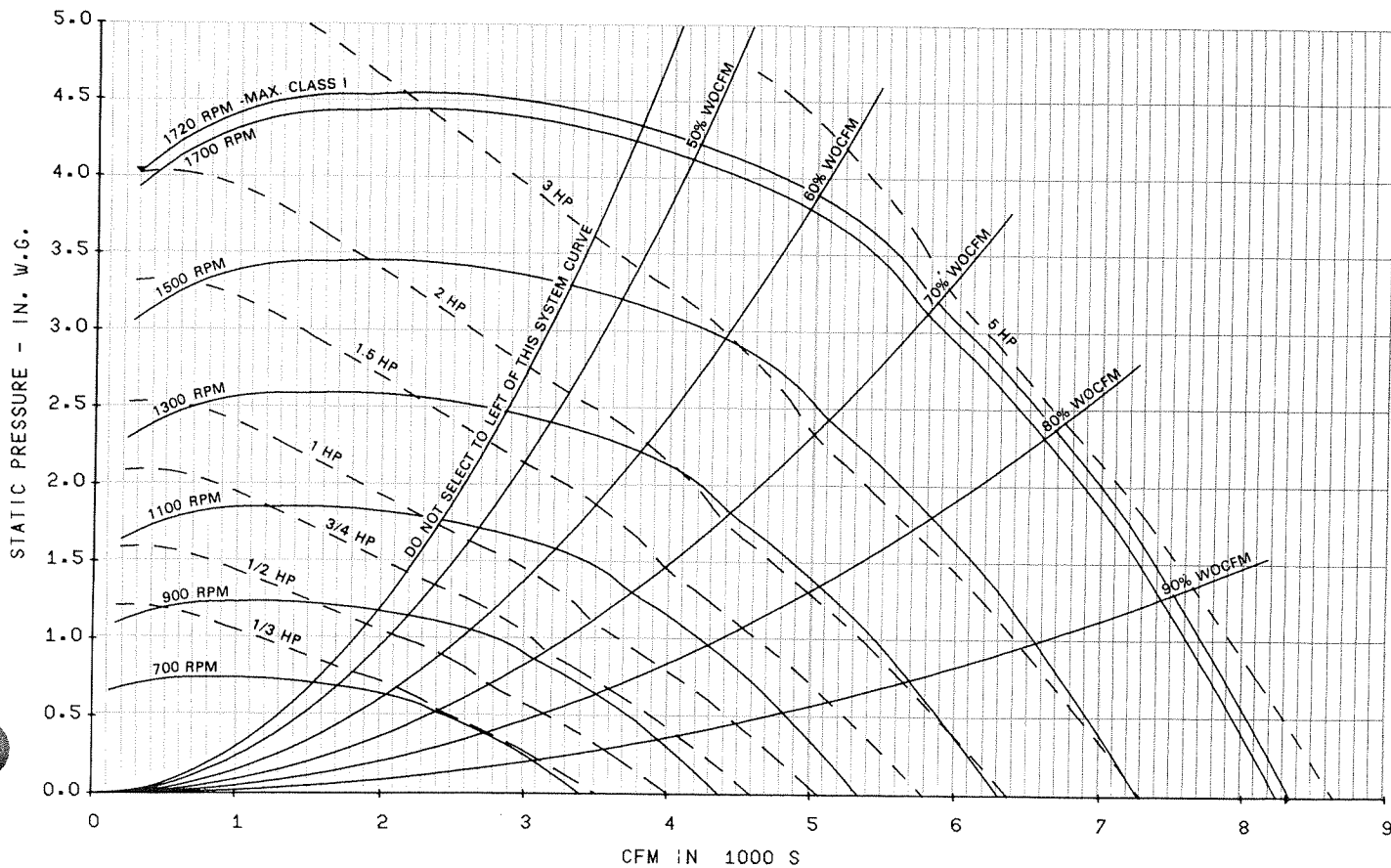


20 BI (Wheel Dia. 20" Tip Speed FPM = 5.24 x RPM Maximum RPM 1720 Outlet Area 2.32 Sq. Ft.)

VOL. CFM	OUT. VEL. FPM	1/8" S.P.		1/4" S.P.		3/8" S.P.		1/2" S.P.		3/4" S.P.		1" S.P.		1 1/2" S.P.		2" S.P.		2 1/2" S.P.		3" S.P.	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
1855	800	447	0.08	511	0.13	567	0.17	622	0.21	731	0.32	832	0.45								
2088	900	488	0.11	546	0.16	601	0.21	647	0.25	746	0.36	841	0.49								
2320	1000	531	0.14	583	0.19	633	0.24	681	0.30	767	0.40	856	0.53	1021	0.84						
2552	1100	575	0.18	620	0.23	668	0.28	713	0.34	792	0.46	873	0.59	1030	0.89						
2784	1200	619	0.22	661	0.27	704	0.33	747	0.40	826	0.53	896	0.65	1044	0.96	1183	1.33				
3015	1300	663	0.27	703	0.32	742	0.39	782	0.46	857	0.60	924	0.73	1060	1.03	1192	1.40	1319	1.82	1442	2.36
3247	1400	708	0.32	745	0.39	781	0.45	819	0.52	890	0.67	959	0.83	1081	1.13	1208	1.49	1327	1.91	1451	2.47
3479	1500	753	0.39	788	0.45	822	0.52	856	0.60	925	0.76	990	0.92	1104	1.23	1224	1.59	1339	2.00	1451	2.47
3711	1600	799	0.46	832	0.53	864	0.60	895	0.68	961	0.85	1022	1.02	1134	1.36	1244	1.71	1356	2.12	1461	2.58
3943	1700	844	0.54	877	0.62	906	0.69	935	0.77	997	0.94	1057	1.13	1170	1.51	1268	1.85	1373	2.25	1477	2.71
4176	1800	890	0.63	921	0.72	950	0.79	977	0.87	1035	1.05	1092	1.24	1202	1.65	1295	2.00	1394	2.41	1493	2.86
4408	1900	937	0.74	966	0.82	993	0.90	1020	0.99	1073	1.17	1128	1.37	1232	1.78	1328	2.19	1418	2.59	1511	3.04
4640	2000	983	0.85	1011	0.94	1037	1.03	1063	1.12	1112	1.30	1165	1.50	1266	1.94	1363	2.39	1444	2.77	1533	3.23
4872	2100	1030	0.98	1056	1.07	1082	1.16	1106	1.25	1153	1.44	1203	1.65	1300	2.10	1393	2.57	1476	3.00	1558	3.44
5104	2200	1076	1.11	1101	1.21	1126	1.31	1149	1.40	1195	1.60	1241	1.81	1336	2.28	1425	2.76	1512	3.26	1585	3.67
5336	2300	1123	1.26	1146	1.36	1171	1.46	1193	1.56	1238	1.77	1281	1.98	1372	2.46	1458	2.96	1544	3.49	1617	3.94
5568	2400	1170	1.43	1192	1.53	1216	1.64	1238	1.74	1280	1.95	1321	2.17	1409	2.66	1493	3.18	1574	3.71	1653	4.25
5799	2500	1217	1.61	1238	1.71	1261	1.82	1282	1.93	1323	2.15	1363	2.37	1446	2.87	1528	3.41	1607	3.95	1685	4.53
6031	2600	1264	1.80	1284	1.90	1306	2.02	1327	2.13	1366	2.36	1405	2.60	1484	3.10	1564	3.65	1641	4.22	1715	4.79
6263	2700	1311	2.01	1331	2.11	1351	2.23	1372	2.35	1410	2.59	1448	2.83	1522	3.33	1600	3.90	1675	4.49		
6495	2800	1358	2.23	1377	2.34	1396	2.46	1417	2.59	1454	2.83	1491	3.08	1562	3.59	1637	4.17	1710	4.78		
6727	2900	1405	2.47	1423	2.58	1442	2.70	1462	2.84	1499	3.09	1534	3.35	1602	3.87	1675	4.46				
6959	3000	1453	2.72	1470	2.84	1488	2.97	1507	3.10	1543	3.37	1577	3.63	1643	4.17	1713	4.76				

V-BELT DRIVE #1. RPM RANGE 437-591; #2. 555-671; #3. 650-775; #4. 700-850; #5. 851-1000; #6. 919-1070; #7. 1020-1255; #8. 1155-1356; #9. 1280-1520; #10. 1515-1720.

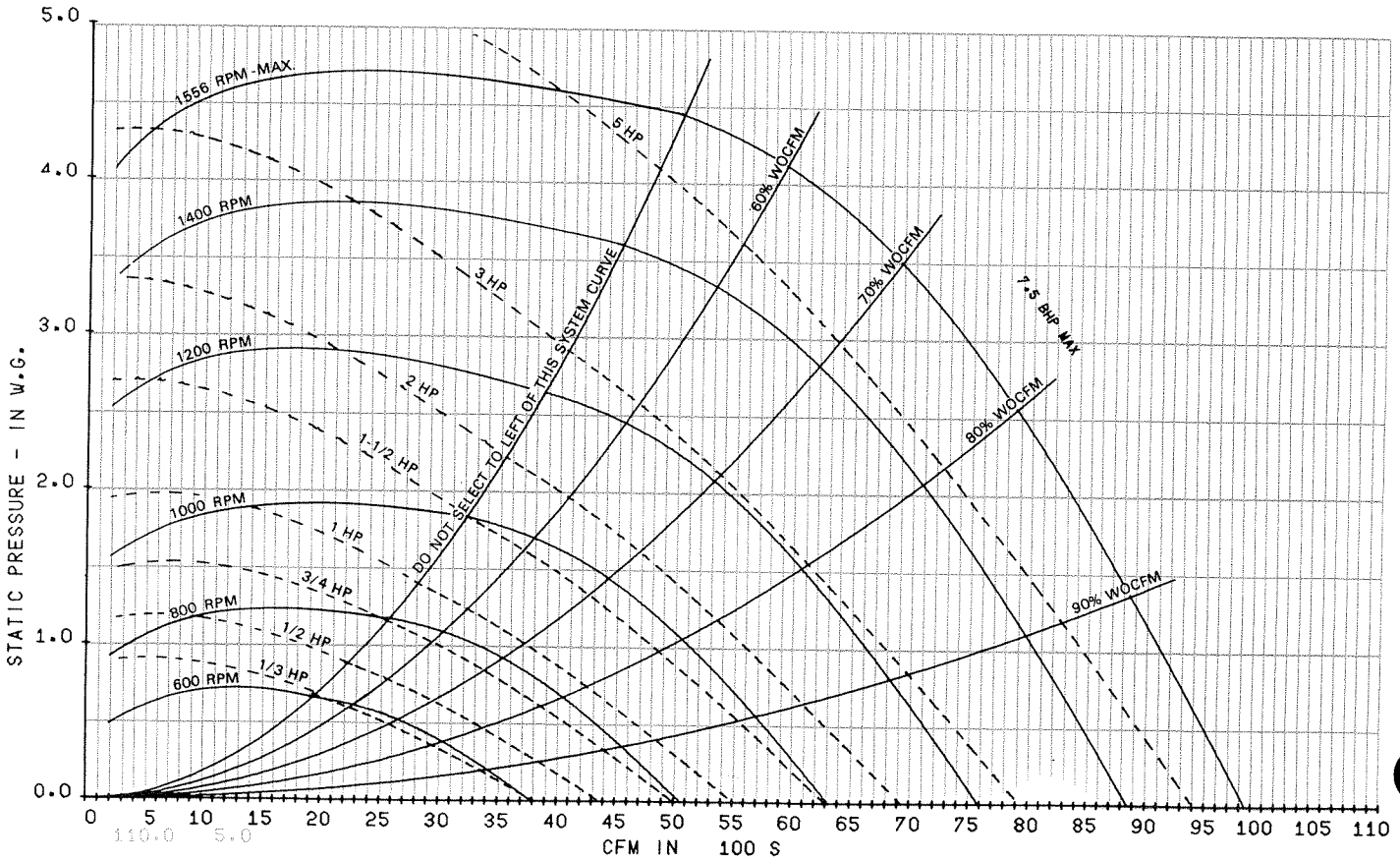
PERFORMANCE IS FOR UTILITY FAN WITH OUTLET DUCT. BHP DOES NOT INCLUDE LOSSES.



22 BI (Wheel Dia. 22 1/4" Tip Speed FPM = 5.83 x RPM Maximum RPM 1556 Outlet Area 2.83 Sq. Ft.)

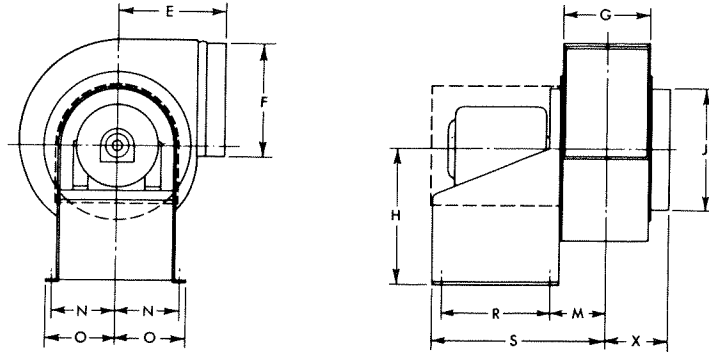
VOL. CFM	OUT. VEL. FPM	1/8 S.P.		1/4 S.P.		3/8 S.P.		1/2 S.P.		3/4 S.P.		1 S.P.		1-1/2 S.P.		2 S.P.		2-1/2 S.P.		3 S.P.	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
2264	800	413	0.12	463	0.17	510	0.23	559	0.29	655	0.45										
2547	900	452	0.16	497	0.21	542	0.28	582	0.34	671	0.50										
2830	1000	492	0.20	535	0.26	574	0.33	614	0.40	689	0.55	753	0.67								
3113	1100	533	0.25	573	0.32	608	0.38	645	0.46	713	0.61	785	0.80	922	1.22						
3396	1200	574	0.31	611	0.38	646	0.46	678	0.53	744	0.71	806	0.88	937	1.33	1050	1.75				
3679	1300	616	0.37	650	0.45	683	0.54	712	0.61	775	0.80	831	0.97	953	1.42	1069	1.93				
3962	1400	658	0.45	690	0.54	721	0.63	751	0.72	807	0.90	864	1.10	972	1.53	1084	2.06	1186	2.59		
4245	1500	701	0.54	731	0.63	760	0.73	789	0.82	840	1.01	894	1.22	994	1.65	1100	2.19	1203	2.77	1293	3.31
4528	1600	743	0.65	772	0.74	799	0.84	827	0.94	875	1.13	926	1.35	1020	1.79	1119	2.32	1218	2.93	1311	3.56
4811	1700	787	0.76	813	0.86	839	0.96	865	1.07	915	1.29	959	1.50	1053	1.99	1140	2.48	1234	3.09	1326	3.75
5094	1800	830	0.89	855	0.99	880	1.10	904	1.21	952	1.45	994	1.66	1084	2.17	1165	2.66	1253	3.27	1341	3.94
5377	1900	873	1.04	897	1.14	920	1.25	944	1.37	990	1.61	1030	1.84	1115	2.36	1192	2.86	1275	3.46	1359	4.14
5660	2000	917	1.20	939	1.31	962	1.42	984	1.55	1028	1.80	1070	2.06	1147	2.57	1227	3.15	1299	3.68	1378	4.35
5943	2100	960	1.37	982	1.49	1003	1.61	1024	1.74	1067	2.00	1107	2.27	1181	2.79	1258	3.39	1326	3.93	1401	4.59
6226	2200	1004	1.57	1025	1.69	1045	1.81	1065	1.94	1106	2.21	1145	2.50	1216	3.03	1289	3.65	1361	4.29	1425	4.86
6509	2300	1048	1.78	1067	1.90	1087	2.03	1106	2.17	1145	2.45	1183	2.74	1251	3.29	1322	3.92	1392	4.59	1452	5.16
6792	2400	1092	2.01	1111	2.14	1129	2.27	1148	2.41	1185	2.70	1222	3.00	1292	3.63	1355	4.22	1423	4.90	1488	5.61
7075	2500	1136	2.26	1154	2.39	1172	2.53	1190	2.68	1225	2.97	1261	3.29	1329	3.93	1390	4.53	1455	5.23	1518	5.96
7358	2600	1180	2.53	1197	2.67	1214	2.81	1232	2.96	1266	3.27	1300	3.59	1367	4.26	1425	4.87	1487	5.58	1549	6.33
7641	2700	1224	2.82	1241	2.96	1257	3.11	1274	3.26	1307	3.58	1340	3.91	1405	4.60	1461	5.23	1521	5.95		
7924	2800	1268	3.13	1284	3.28	1300	3.43	1316	3.59	1348	3.92	1380	4.26	1443	4.97	1503	5.70	1555	6.35		
8207	2900	1312	3.47	1328	3.62	1343	3.78	1359	3.94	1390	4.28	1420	4.63	1481	5.36	1540	6.11				
8490	3000	1356	3.82	1371	3.98	1386	4.15	1401	4.32	1431	4.66	1461	5.02	1520	5.77						

V-BELT DRIVE #1, RPM RANGE 382-525; #2, 526-722; #3, 695-825; #4, 788-875; #5, 850-1025; #6, 1026-1123; #7, 1087, 1205; #8, 1159-1461; #9, 1395-1585.  
 PERFORMANCE IS FOR UTILITY FAN WITH OUTLET DUCT. BHP DOES NOT INCLUDE LOSSES.

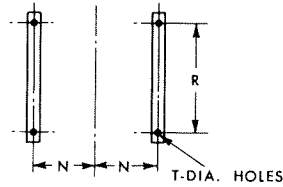


# ROUGHING-IN-DIMENSIONS

## DIRECT DRIVE



**SIZES**  
FC 4-9  
BI 10-15



**BASE LAYOUT**

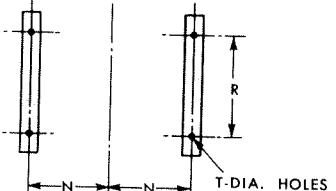
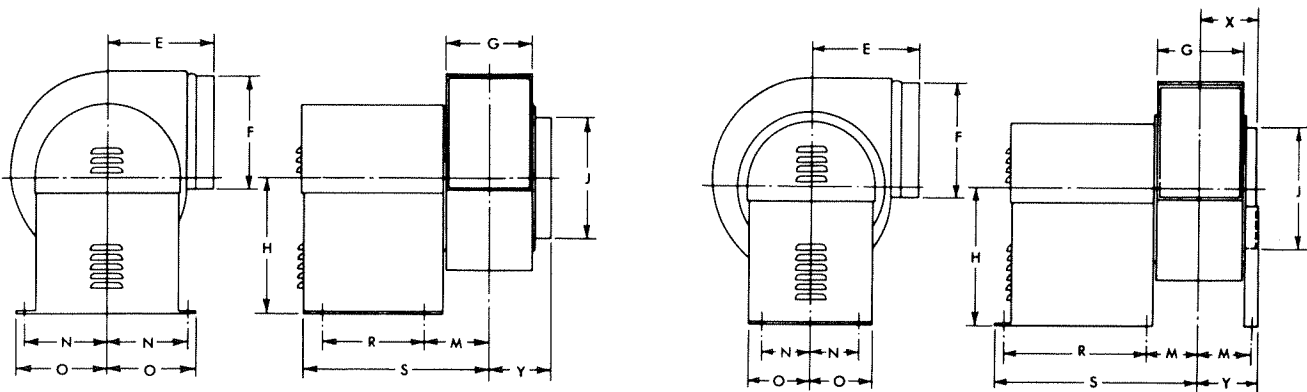
All dimensions approximate. Certified prints on request.

### Direct Drive Utility Fan Dimensions

SIZE	WHEEL DIA.	E	F	G	H	J	M	N	O	R	S	T	X	MAX. MOTOR FRAME	MIN. MOTOR SHAFT DIA.
4	4 1/2	3 7/8	5 1/8	3 3/4	5 1/2	5 3/4	3 1/8	4	4 3/8	5 1/2	9 5/8	7/16	2 3/4	56	3/16
6	6	4 7/8	6 3/4	4 1/8	7	7 1/2	3 3/4	4 1/4	4 5/8	6 1/2	11 1/4	7/16	3 1/2	56	3/8
7	7 1/2	7 1/2	8 3/8	6	9	9 1/4	4 1/8	4 1/8	4 3/8	7 1/2	12 3/8	7/16	4	56	1/2
9	9	8 1/2	10 1/4	7 1/8	11 1/4	11	4 3/8	5	5 1/2	8 1/2	14 1/8	9/16	4 3/8	145T	3/8
10	10 1/2	11	11 3/8	8 3/8	11 1/4	14 1/4	5 1/4	6 3/8	6 7/8	11 3/8	17 3/8	5/16	5 1/2	145T	3/8
12	12 1/4	12 1/4	13	9 3/4	15	13 7/8	5 7/8	5 3/4	7	12 1/2	19 7/8	5/8	6 1/4	145T	3/8
13	13 1/2	13 1/8	14 3/8	10 3/4	15	15 3/8	6 3/8	6 1/2	7 3/4	12 1/2	20 3/8	5/8	6 3/4	145T	3/8
15	15	14 1/4	15 7/8	11 7/8	16 1/4	16 7/8	7	7	8 1/2	12 1/2	21	5/8	7 1/4	145T	5/8

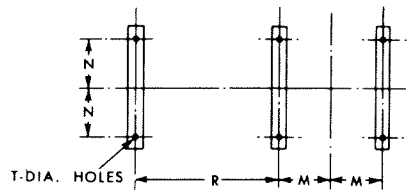
# ROUGHING-IN-DIMENSIONS CONTINUED

## BELT DRIVE



**SIZES**  
FC 9-16  
BI 10-16

**BASE LAYOUT**



**SIZES**  
FC 18-22  
BI 18-36

**BASE LAYOUT**

All dimensions approximate. Certified prints on request.

### Belt Drive Utility Fan Dimensions

SIZE	WHEEL DIA.	SHAFT DIA.	KEYWAY	E	F	G	H	J	M	N	O	R	S	T	X	Y	MAX. MOTOR FRAME
9	9	1 5/16	1/4 X 1/8	8 1/2	10 1/4	7 7/8	14	11	5 3/4	6 5/8	7 3/8	12	19 7/8	3/8	4 5/8	4 1/2	145T
10	10 1/2	1 5/16	1/4 X 1/8	11	11 3/8	8 3/8	14	14 1/4	6 3/8	8 3/8	9 1/8	12	20 1/2	3/8	5 1/2	5 1/2	145T
12	12 1/4	1 5/16	1/4 X 1/8	12 1/4	13	9 3/4	15	13 7/8	7 1/8	7 7/8	8 3/4	13	22 3/8	5/8	6 1/4	6 1/4	145T
13	13 1/2	1 5/16	1/4 X 1/8	13 1/8	14 3/8	10 3/4	15	15 3/8	7 5/8	8 5/8	9 1/2	13	22 7/8	5/8	6 3/4	6 3/8	184T
15	15	1 5/16	1/4 X 1/8	14 1/4	15 7/8	11 7/8	16 1/4	16 7/8	8 3/8	9 3/8	10 1/4	15	25 3/4	5/8	7 1/4	7 1/4	184T
16	16 1/2	1 5/16	1/4 X 1/8	15 1/2	17 3/8	13 1/8	17 3/4	18 5/8	8 5/8	10 1/4	11 1/8	17	27 5/8	5/8	7 7/8	7 7/8	184T
18	18 1/4	1 3/16	1/4 X 1/8	16 7/8	19 1/8	14 1/2	19 3/4	20 1/8	8 3/8	8	10 1/4	20 3/4	30 1/4	5/8	10 1/4	9 1/2	184T
20	20	1 3/16	1/4 X 1/8	19 1/8	21 3/8	15 5/8	21 1/2	22 7/8	9 1/8	9	11 5/8	20 3/4	31	5/8	10 7/8	10 1/4	184T
22	22 1/4	1 3/16	1/4 X 1/8	21	23 3/8	17 3/4	23 1/2	25 1/8	10 1/8	10	12 3/4	24	35 1/8	5/8	11 7/8	11 1/8	215T

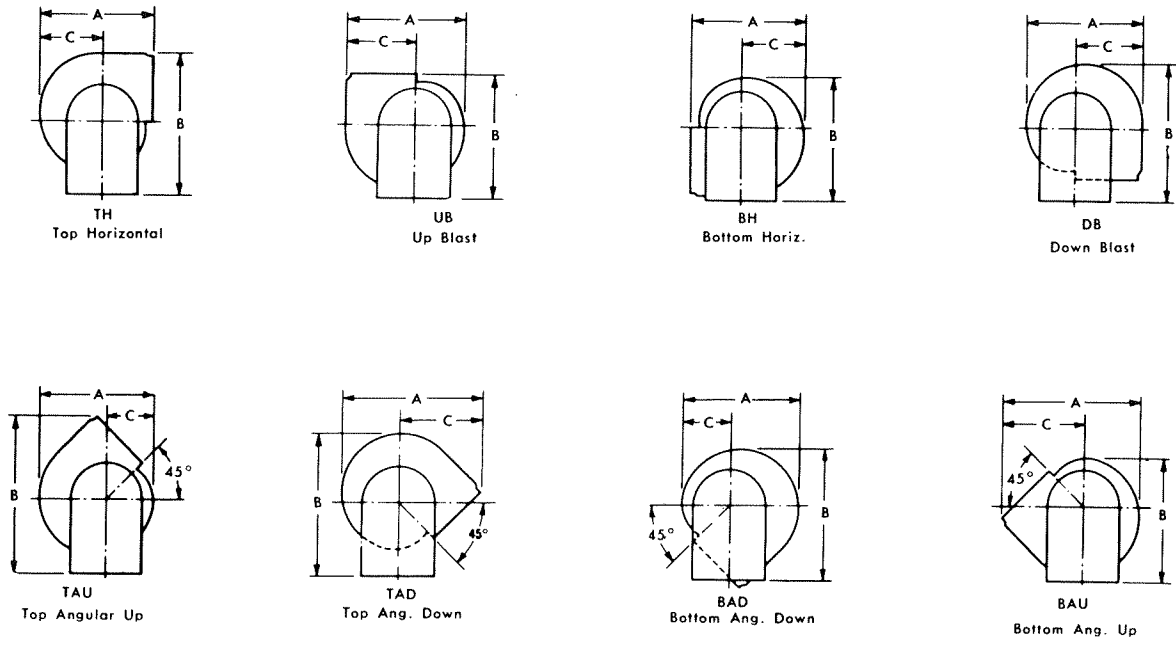
### Belt Drive Utility Fan Weights (Lbs. — less motors)

FAN SIZE	9	10	12	13	15	16	18	20	22	24	27	30	33	36
FAN WEIGHT	80	100	120	150	180	220	270	330	400	550	720	990	1100	1300

### Belt Drive Utility Fan Motor Weights (Lbs.)

MOTOR HORSEPOWER	1/16	1/4	1/3	1/2	3/4	1	1 1/2	2	3	5	7 1/2	10	15
110/220 VOLT SINGLE PHASE	31	31	31	31	34	41	51	75	90	—	—	—	—
220/440 VOLT 3 PHASE	—	20	25	27	31	35	44	44	75	90	130	150	200

**DISCHARGES**



All dimensions approximate. Certified prints on request.

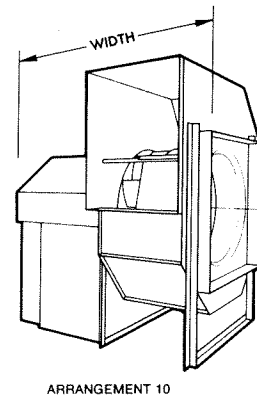
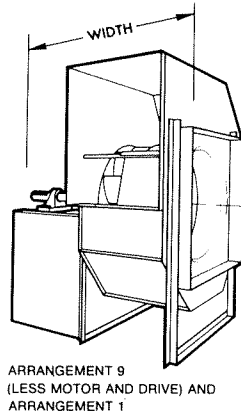
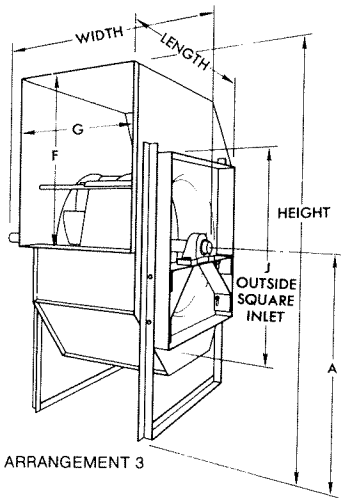
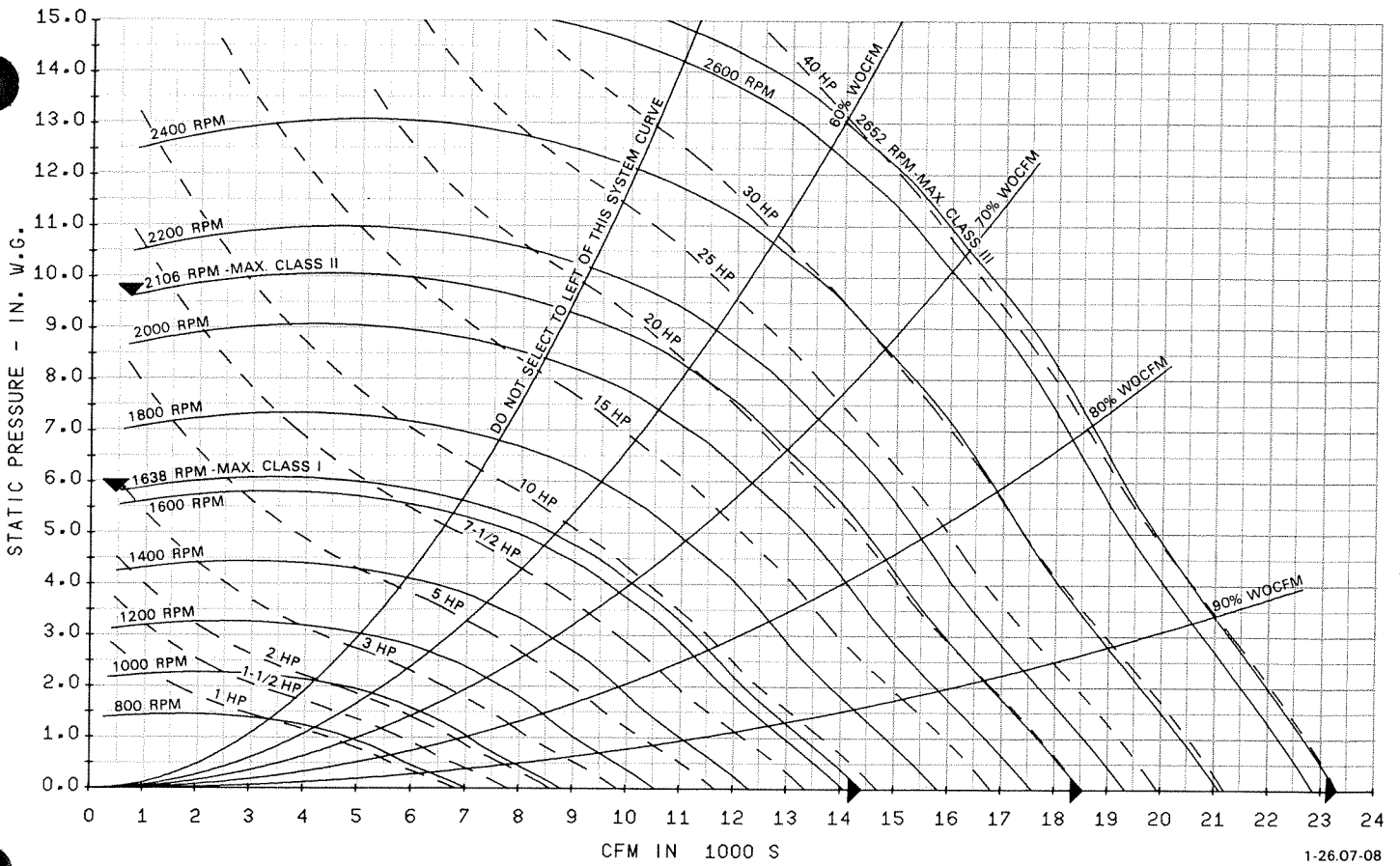
**Direct Drive Utility Fan Overall Dimensions**

SIZE	A								B								C							
	TH	UB	BH	DB	TAU	TAD	BAD	BAU	TH	UB	BH	DB	TAU	TAD	BAD	BAU	TH	UB	BH	DB	TAU	TAD	BAD	BAU
4	8	8 3/8	8	8 3/8	7 7/8	9 3/4	7 7/8	9 3/4	10 1/4	9 3/8	9 1/8	9 5/8	11 3/8	9 7/8	9 3/8	9	4 1/8	4 3/8	4 1/8	4 3/8	3 1/2	5 7/8	3 1/2	5 7/8
6	10 3/8	11	10 3/8	11	10 1/4	12 3/4	10 1/4	12 3/4	13 1/4	11 1/8	11 3/4	12 1/2	14 3/8	12 3/4	12 1/8	11 1/2	5 1/2	6 1/4	5 1/2	6 1/4	4 1/2	7 5/8	4 1/2	7 5/8
7	14 1/4	13 3/8	14 1/4	13 3/8	13 1/4	16 3/4	13 1/4	16 3/4	16 1/2	16 1/2	14 3/8	15 3/4	19 3/8	16 1/8	15 3/8	15 1/8	6 3/4	7 1/2	6 3/4	7 1/2	6 1/8	10 3/8	6 1/8	10 3/8
9	16 1/2	16 1/8	16 1/2	16 1/8	15 3/4	19 3/8	15 3/4	19 3/8	20 1/4	19 3/4	18 3/8	19 1/4	23 3/8	19 3/4	18 7/8	18 1/2	8	9	8	9	7 1/4	12 1/8	7 1/4	12 1/8
10	20 3/4	19 3/8	20 3/4	19 3/8	18 7/8	24 3/8	18 7/8	24 3/8	21 1/8	22 1/4	20 1/4	21	26 1/4	21 3/8	20 5/8	20 1/8	9 3/4	10 3/8	9 3/4	10 3/8	8 7/8	15	8 7/8	15
12	23 1/2	22 3/4	23 1/2	22 3/4	21 7/8	27 7/8	21 7/8	27 7/8	27 1/4	27 1/4	25 1/2	26 1/4	32 1/8	26 3/4	25 7/8	25 1/4	11 1/4	12 1/4	11 1/4	12 1/4	10 1/4	17 1/8	10 1/4	17 1/8
13	25 1/2	24 7/8	25 1/2	24 7/8	24	30 3/8	24	30 3/8	28 1/2	28 1/8	26 1/2	27 3/8	33 1/2	27 7/8	26 7/8	26 1/4	12 3/8	13 1/2	12 3/8	13 1/2	11 1/4	18 1/2	11 1/4	18 1/2
15	27 7/8	27 3/8	27 7/8	27 3/8	26 3/8	33 1/2	26 3/8	33 1/2	31 1/8	30 1/2	29	29 7/8	36 3/8	30 1/2	29 3/8	28 5/8	13 3/8	14 7/8	13 3/8	14 7/8	12 3/8	20 3/8	12 3/8	20 3/8

**Belt Drive Utility Fan Overall Dimensions**

SIZE	A								B								C							
	TH	UB	BH	DB	TAU	TAD	BAD	BAU	TH	UB	BH	DB	TAU	TAD	BAD	BAU	TH	UB	BH	DB	TAU	TAD	BAD	BAU
9	16 1/2	16 1/8	16 1/2	16 1/8	15 3/4	19 3/8	15 3/4	19 3/8	23	22 1/2	21 1/8	22	26 1/8	22 1/2	21 3/8	21 1/4	8	9	8	9	7 1/4	12 1/8	7 1/4	12 1/8
10	20 3/4	19 3/8	20 3/4	19 3/8	18 7/8	24 3/8	18 7/8	24 3/8	24 3/8	25	23	23 3/4	29	24 1/4	23 3/8	22 7/8	9 3/4	10 3/8	9 3/4	10 3/8	8 7/8	15	8 7/8	15
12	23 1/2	22 3/4	23 1/2	22 3/4	21 7/8	27 7/8	21 7/8	27 7/8	27 1/4	27 1/4	25 1/2	26 1/4	32 1/8	26 3/4	25 7/8	25 1/4	11 1/4	12 1/4	11 1/4	12 1/4	10 1/4	17 1/8	10 1/4	17 1/8
13	25 1/2	24 7/8	25 1/2	24 7/8	24	30 3/8	24	30 3/8	28 1/2	28 1/8	26 1/2	27 3/8	33 1/2	27 7/8	26 7/8	26 1/4	12 3/8	13 1/2	12 3/8	13 1/2	11 1/4	18 1/2	11 1/4	18 1/2
15	27 7/8	27 3/8	27 7/8	27 3/8	26 3/8	33 1/2	26 3/8	33 1/2	31 1/8	30 1/2	29	29 7/8	36 3/8	30 1/2	29 3/8	28 5/8	13 3/8	14 7/8	13 3/8	14 7/8	12 3/8	20 3/8	12 3/8	20 3/8
16	30 1/2	30 1/4	30 1/2	30 1/4	29 3/8	36 3/8	29 3/8	36 3/8	34 1/8	33 1/4	31 3/8	32 3/4	40	33 3/8	32 1/8	31 3/8	15	16 3/8	15	16 3/8	13 3/8	22 1/4	13 3/8	22 1/4
18	33 3/8	33 3/8	33 3/8	33 3/8	32 1/4	40 1/4	32 1/4	40 1/4	37 3/4	36 5/8	35 1/8	36 1/4	44 1/4	37	35 3/8	34 3/4	16 1/2	18	16 1/2	18	15	24 3/8	15	24 3/8
20	37 1/8	36 1/2	37 1/8	36 1/2	35 1/8	44 3/8	35 1/8	44 3/8	41 1/4	40 5/8	38 1/4	39 1/2	48 3/4	40 3/8	38 7/8	37 7/8	18	19 3/4	18	19 3/4	16 3/8	27 1/4	16 3/8	27 1/4
22	41	40 1/2	41	40 1/2	39	49 1/4	39	49 1/4	45 3/8	44 1/2	42 1/8	43 1/2	53 1/2	44 3/8	42 3/4	41 3/8	20	21 1/8	20	21 1/8	18 1/8	30	18 1/8	30





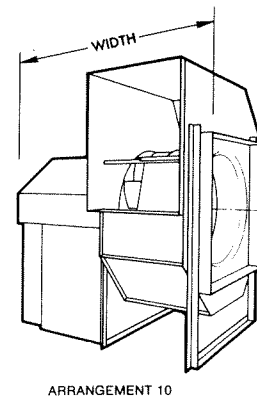
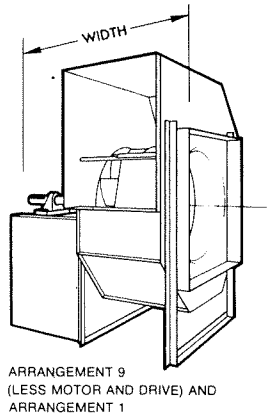
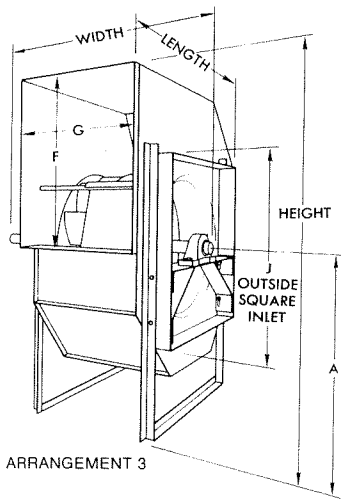
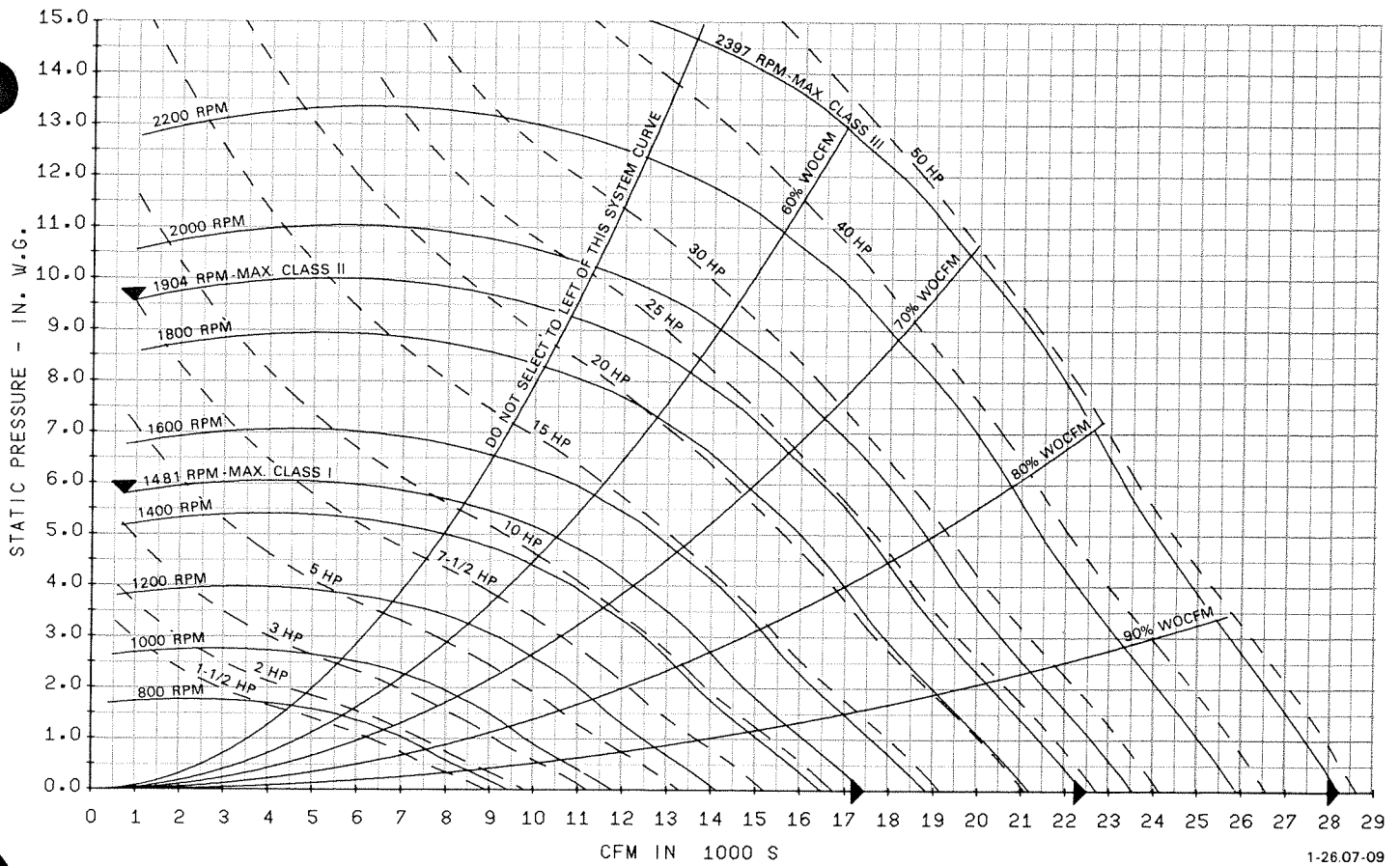
CLASS I		ARR. 1	ARR. 3	ARR. 9	ARR. 10	W				CLASS II				CLASS III		ARR. 3												
		55%	36%	55%	59%	CLASS II	55%	36%	55%	59%	CLASS III				37%													
<b>CLASS I &amp; II (Arrangements 1, 3, 9 &amp; 10)</b>																												
A		H								L				F				G										
All	All	TH	BH	UB	DB	TAU	TAD	BAU	BAD	TH	BH	UB	DB	TAU	TAD	BAU	BAD	TH	BH	UB	BD	TAU	TAD	BAU	BAD	All But DB & BAD	DB	BAD
28 3/4	29 3/4	56%	49%	48%	53%	65 1/2	65 1/2	47 1/2	59 1/2	44 3/4	44 3/4	48 1/2	48 1/2	45 1/2	59 1/2	59 1/2	45 1/2	25 3/4				25 3/4		19 3/4		19%		
<b>CLASS III (Arrangement 3)</b>																												
A				J				H				L				F				G								
TH	BH	UB	DB	TAU	TAD	BAU	BAD	All	TH	BH	UB	DB	TAU	TAD	BAU	BAD	TH	BH	UB	BD	TAU	TAD	BAU	BAD	All	All		
22	28%	26%	20%	23 3/4	19%	27 3/4	18 1/2	29 3/4	50%	49 1/2	46 1/2	45%	62%	46%	46%	61%	45%	45%	49 1/2	49 1/2	47 3/4	61%	61%	47%	25%	19%		

Due to Trane's policy of continuous product development, dimensions are subject to change.  
For complete dimension data, refer to the applicable submittal drawing.









CLASS I & II (Arrangements 1, 3, 9 & 10)																													
A		H								L								F				G							
TH	BH	UB	DB	TAU	TAD	BAU	BAD	TH	BH	UB	DB	TAU	TAD	BAU	BAD	TH	BH	UB	DB	TAU	TAD	BAU	BAD	All But DB & BAD	DB	BAD			
31 1/4	32 1/4	61 1/2	54 1/4	52 3/4	58 3/8	71 1/4	60 3/4	51 1/4	64 3/4	49 3/8	49 3/8	53 1/4	53 1/4	50	64 3/4	64 3/4	50	28 3/8				28 3/8				21 3/4		21 3/8	

CLASS III (Arrangement 3)																											
A								J				H								L				F		G	
TH	BH	UB	DB	TAU	TAD	BAU	BAD	All	TH	BH	UB	DB	TAU	TAD	BAU	BAD	TH	BH	UB	DB	TAU	TAD	BAU	BAD	All	All	
24	31 1/4	28 3/8	22 3/8	25 3/8	21 3/8	30 3/8	20	32 1/4	54 3/4	54 3/4	51	50	68 3/8	50 3/8	50 3/8	67 3/8	50	50	53 3/4	53 3/4	51 3/8	67 3/8	67 3/8	51 3/8	28 3/4	21 3/8	

Due to Trane's policy of continuous product development, dimensions are subject to change.  
 For complete dimension data, refer to the applicable submittal drawing.

Wheel diameter, 30 inches

Outlet area, 5.17 square feet

Tip speed, FPM = 7.85 x RPM

Pressure class limits:

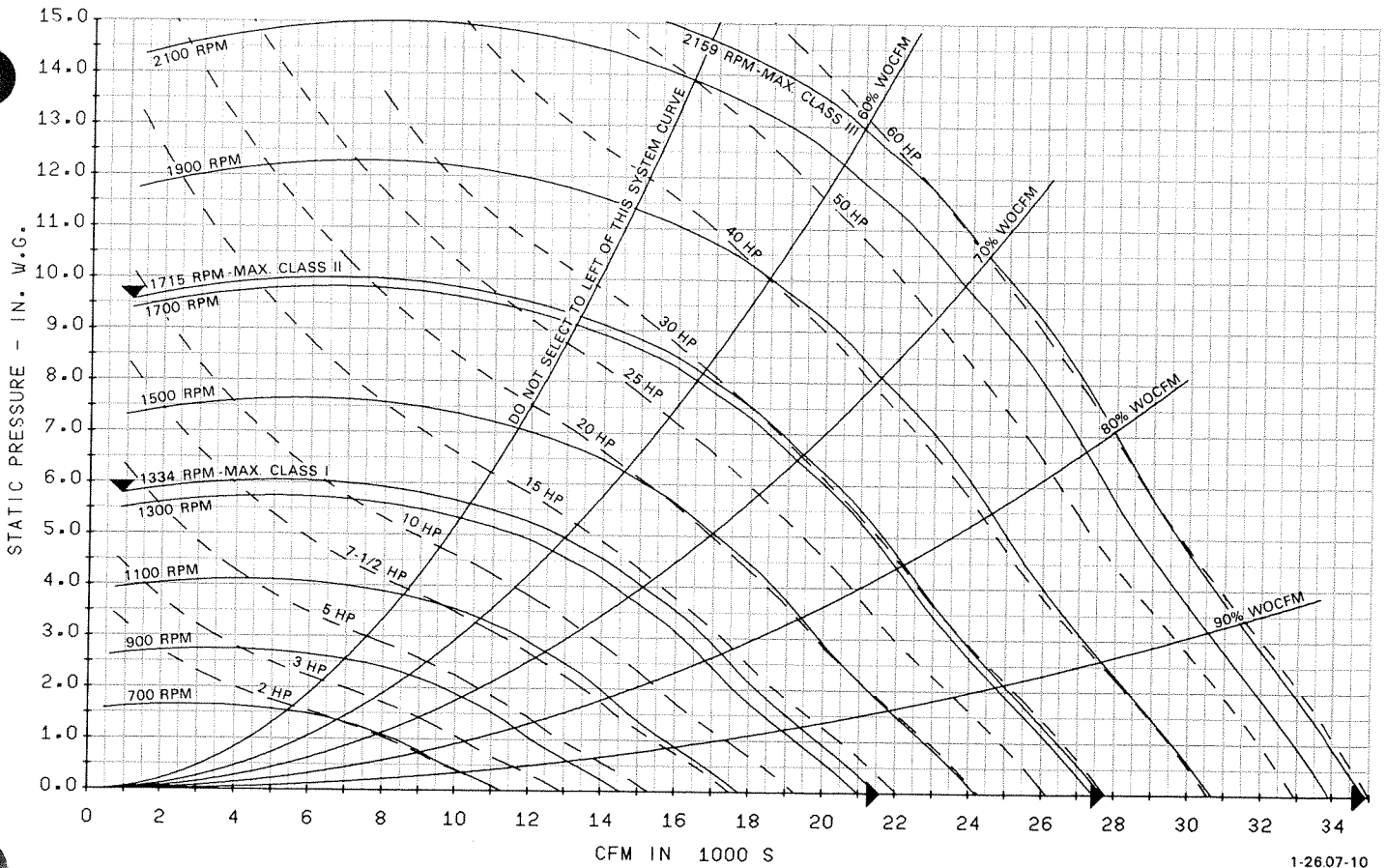
Class	Maximum RPM
I	1334
II	1715
III	2159

VOL. CFM	OUT. VEL. FPM	VEL. PRES. IN. H <sub>2</sub> O	0.250"		0.375"		0.500"		0.625"		0.750"		0.875"		1.000"		1.250"		1.500"		1.750"		2.000"		2.250"		
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	
5170	1000	0.08									520	0.83	548	0.96	576	1.10	630	1.38									
5687	1100	0.08								513	0.82	539	0.94	565	1.07	591	1.21	642	1.50	691	1.81						
6204	1200	0.09								535	0.94	560	1.07	584	1.20	609	1.34	656	1.64	702	1.97	747	2.31	792	2.67		
6721	1300	0.11						535	0.93	559	1.08	583	1.21	606	1.35	628	1.49	673	1.80	716	2.13	759	2.49	802	2.85	842	3.24

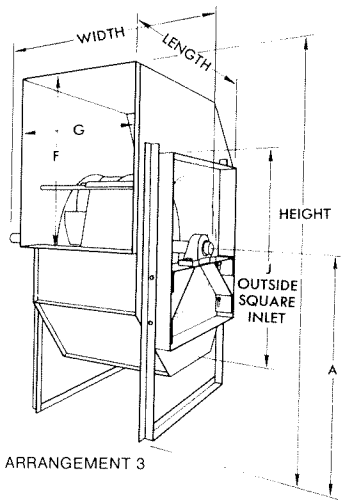
VOL. CFM	OUT. VEL. FPM	VEL. PRES. IN. H <sub>2</sub> O	2.500"		3.000"		3.500"		4.000"		4.500"		5.000"		5.500"		6.000"		6.500"		7.000"		7.500"		8.000"		
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	
7238	1400	0.12	890	3.86																							
7755	1500	0.14	901	4.10	972	4.99																					
8272	1600	0.16	913	4.39	983	5.26	1048	6.23																			
8789	1700	0.18	928	4.85	994	5.58	1057	6.53	1120	7.57																	

VOL. CFM	OUT. VEL. FPM	VEL. PRES. IN. H <sub>2</sub> O	8.500"		9.000"		9.500"		10.000"		10.500"		11.000"		11.500"		12.000"		12.500"		13.000"		13.500"		14.000"		
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	
13442	2600	0.42	1643	24.33	1684	26.92																					
13959	2700	0.45	1655	25.16	1693	26.71	1732	28.34	1772	30.03																	
14476	2800	0.49	1666	26.03	1705	27.80	1742	29.20	1780	30.87	1818	32.59															
15510	3000	0.56	1690	27.97	1727	29.59	1765	31.17	1803	32.82	1839	34.53	1873	36.24	1909	38.04	1944	39.89	1979	41.78							

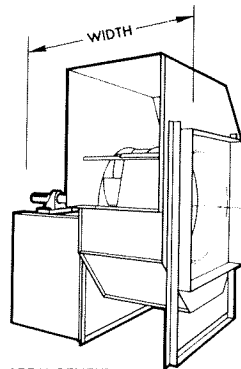
Performance based on 0.075 lbs. per cubic foot density (Air at 70F and 29.92" Hg Bar.)  
The test result on which these ratings are based were obtained from test of Arrangement 1 AFSW fans. Performance shown is for AFSW fans with outlet duct. BHP does not include drive losses.



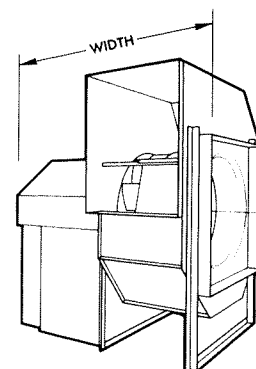
1-26.07-10



ARRANGEMENT 3



ARRANGEMENT 9  
 (LESS MOTOR AND DRIVE) AND  
 ARRANGEMENT 1



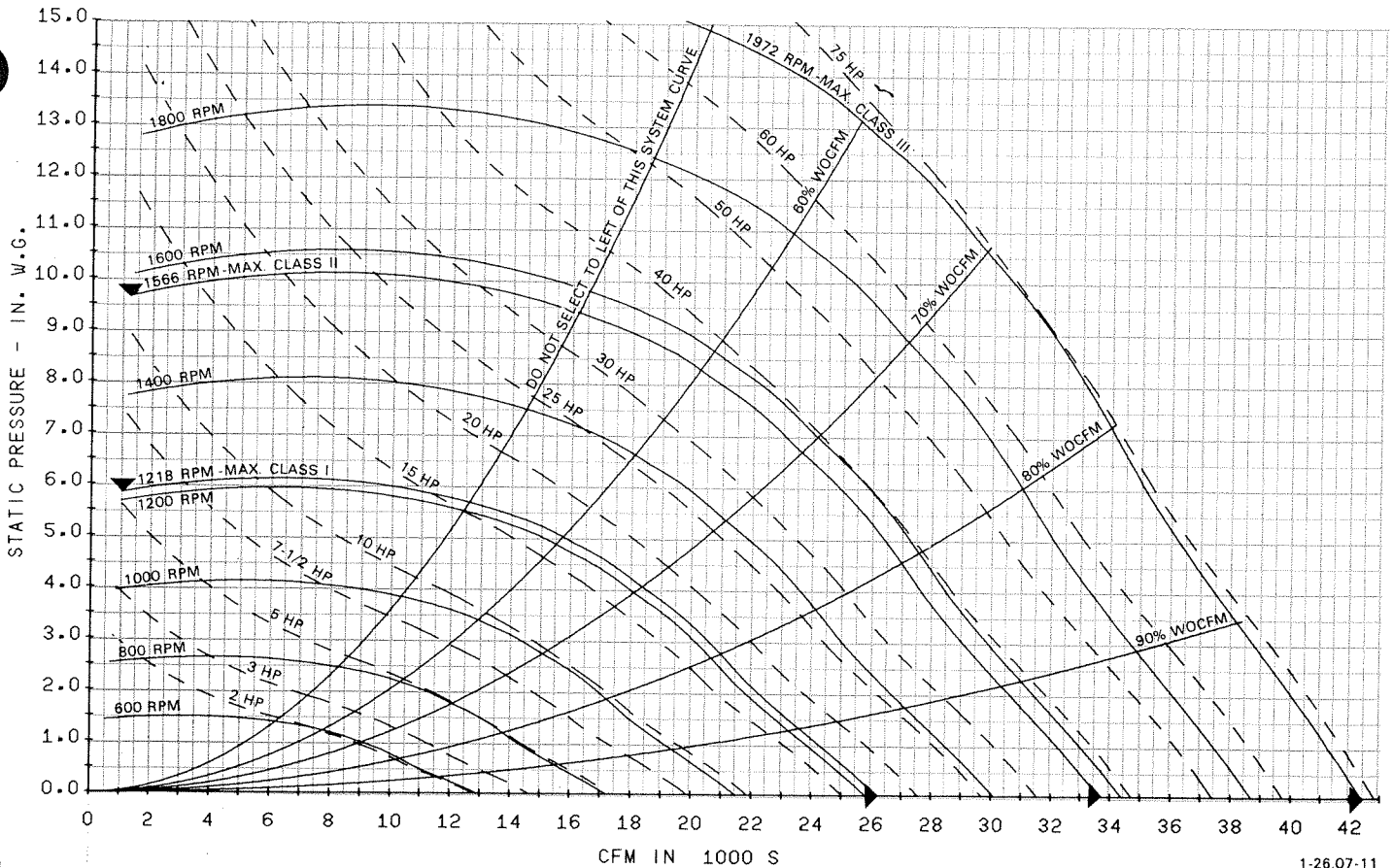
ARRANGEMENT 10

																				W																																	
CLASS I										ARR. 1	ARR. 3	ARR. 9	ARR. 10	CLASS II										ARR. 1	ARR. 3	ARR. 9	ARR. 10	CLASS III					ARR. 3																				
										61%	42%	61%	65%											61%	42%	61%	65%						43%																				
<b>CLASS I &amp; II (Arrangements 1, 3, 9 &amp; 10)</b>																																																					
A	J	H								L								F				G																															
All	All	TH	BH	UB	DB	TAU	TAD	BAU	BAD	TH	BH	UB	DB	TAU	TAD	BAU	BAD	TH	BH	UB	DB	BAD	TAU	TAD	BAU	BAD	All But DB & BAD	DB	BAD																								
34 3/4	35 1/2	68 1/4	60 1/2	58 1/2	65 1/4	79 1/2	67 3/8	57 1/2	72	54 3/4	54 3/4	58 7/8	58 7/8	55 3/8	72	72	55 3/8	31 1/2	31 1/2	31 1/2	31 1/2	31 1/2	31 1/2	31 1/2	31 1/2	31 1/2	24	23 3/8																									
<b>CLASS III (Arrangement 3)</b>																																																					
A										H										L										F		G																					
TH	BH	UB	DB	TAU	TAD	BAU	BAD	All	All	TH	BH	UB	DB	TAU	TAD	BAU	BAD	TH	BH	UB	DB	TAU	TAD	BAU	BAD	TH	BH	UB	DB	BAD	All	All																					
26 3/8	34 1/2	31 1/2	24 3/8	28 3/8	23 3/4	33 3/8	21 1/2	35 1/2	60%	59 3/8	56 3/8	55 3/8	75 3/8	56 3/8	56 3/8	74 3/8	55 3/8	55 3/8	59 3/8	59 3/8	57	74 3/8	74 3/8	57	31 1/2	23 3/8																											

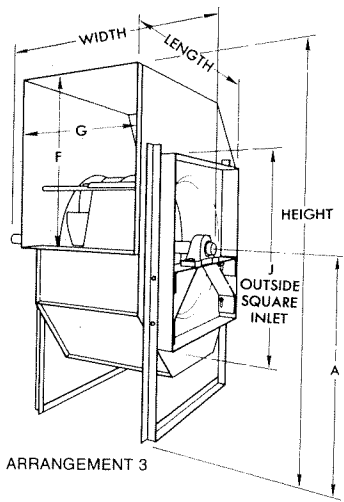
Due to Trane's policy of continuous product development, dimensions are subject to change.  
 For complete dimension data, refer to the applicable submittal drawing.



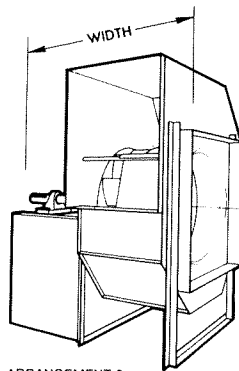




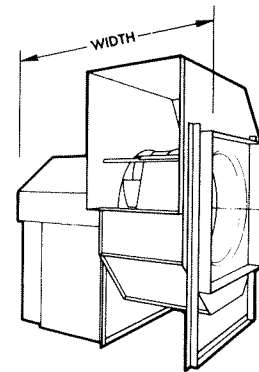
1-26.07-11



ARRANGEMENT 3



ARRANGEMENT 9  
(LESS MOTOR AND DRIVE) AND  
ARRANGEMENT 1



ARRANGEMENT 10

CLASS I & II (Arrangements 1, 3, 9 & 10)																CLASS III (Arrangement 3)											
A		H				L						F				G											
TH	BH	UB	DB	TAU	TAD	BAU	BAD	TH	BH	UB	DB	TAU	TAD	BAU	BAD	TH	BH	UB	DB	TAU	TAD	BAU	BAD	All	All		
38	38½	74%	65%	64%	71½	86%	73¼	62%	78%	59½	59½	64½	60½	78%	78%	60½	34%	34%	26%	26%							
CLASS I																CLASS II										CLASS III	
ARR. 1		ARR. 3		ARR. 9		ARR. 10		ARR. 1		ARR. 3		ARR. 9		ARR. 10		ARR. 1		ARR. 3		ARR. 9		ARR. 10		ARR. 3			
64%		44½		64%		69½		64%		44½		65%		69½		64%		44½		65%		69½		46%			

Due to Trane's policy of continuous product development, dimensions are subject to change.  
For complete dimension data, refer to the applicable submittal drawing.

Wheel diameter, 36½ inches

Outlet area, 7.66 square feet

Tip speed, FPM = 9.55 x RPM

Pressure class limits:

Class	Maximum RPM
I	1103
II	1418
III	1785

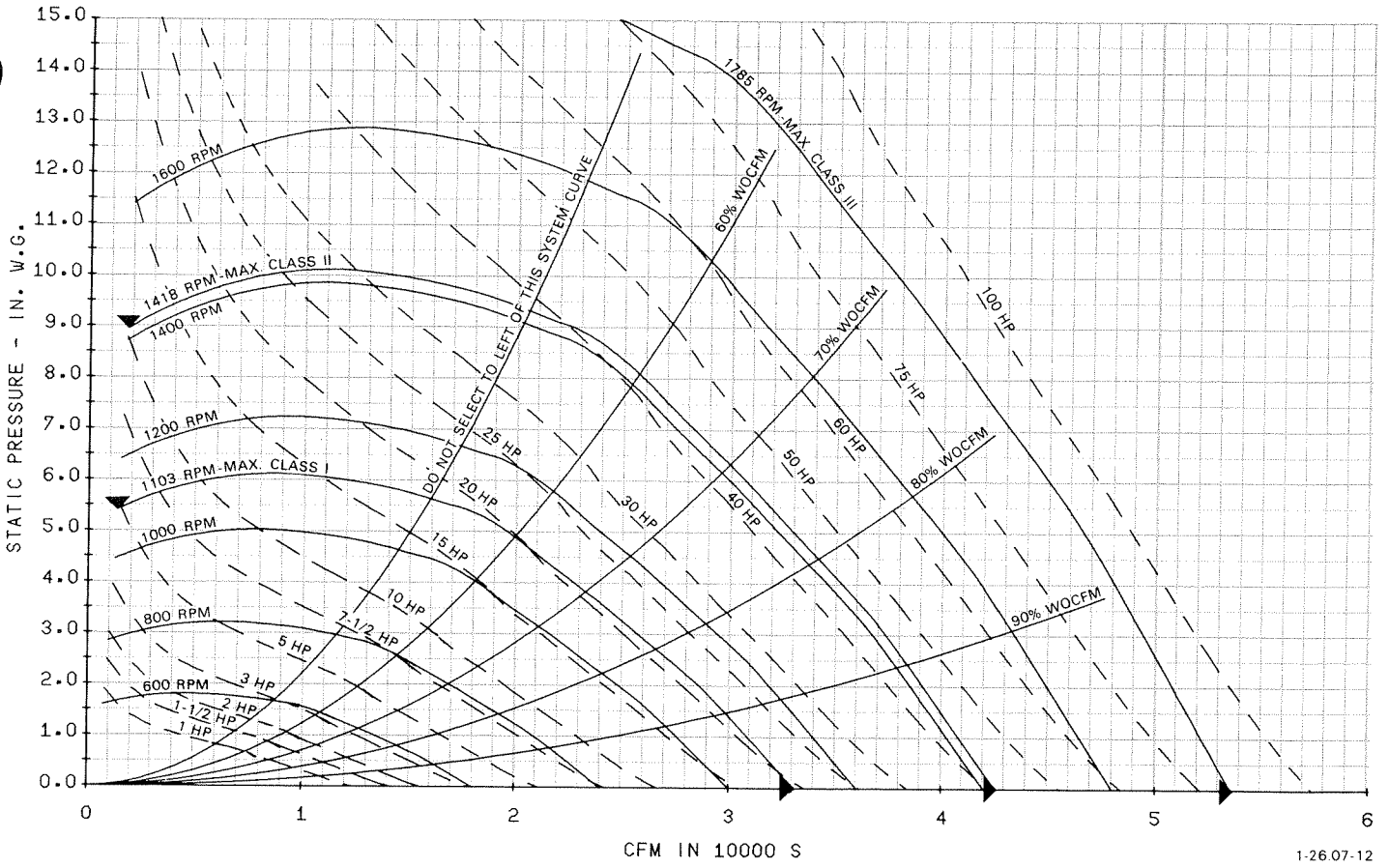
VOL CFM	OUT VEL FPM	VEL PRES IN. H <sub>2</sub> O	0.250" S.P. RPM	0.375" S.P. BHP	0.500" S.P. RPM	0.625" S.P. BHP	0.750" S.P. RPM	0.875" S.P. BHP	1.000" S.P. RPM	1.250" S.P. BHP	1.500" S.P. RPM	1.750" S.P. BHP	2.000" S.P. RPM	2.250" S.P. BHP
7660	1000	0.06												
8426	1100	0.08												
9192	1200	0.09												
9958	1300	0.11												
10724	1400	0.12												
11490	1500	0.14	433	1.30	454	1.52	474	1.74	496	1.99	514	2.22	535	2.50
12256	1600	0.16	457	1.51	477	1.74	496	1.99	514	2.22	535	2.46	556	2.71
13022	1700	0.18	481	1.74	499	2.00	518	2.25	535	2.50	553	2.75	573	3.01
13788	1800	0.20	505	2.00	522	2.27	540	2.54	557	2.81	573	3.07	591	3.34
14554	1900	0.23	529	2.29	545	2.57	562	2.86	579	3.14	595	3.42	610	3.70
15320	2000	0.25	554	2.60	569	2.90	584	3.20	601	3.50	616	3.80	631	4.09
16086	2100	0.27	578	2.94	593	3.26	608	3.58	623	3.89	638	4.21	653	4.52
16852	2200	0.30	602	3.32	618	3.66	631	3.99	645	4.32	660	4.64	674	4.98
17618	2300	0.33	627	3.73	642	4.08	655	4.43	668	4.77	683	5.11	696	5.46
18384	2400	0.36	651	4.17	666	4.54	679	4.90	691	5.26	704	5.62	718	5.98
19150	2500	0.39	676	4.64	690	5.03	703	5.42	715	5.79	727	6.16	740	6.54
19916	2600	0.42	700	5.15	714	5.56	728	5.97	739	6.35	751	6.74	763	7.13
20682	2700	0.45	725	5.70	739	6.12	752	6.55	763	6.95	774	7.36	786	7.77
21448	2800	0.49	750	6.28	763	6.74	776	7.17	788	7.61	798	8.02	809	8.44
22214	2900	0.52	774	6.91	788	7.39	800	7.84	812	8.29	822	8.72	832	9.15
22980	3000	0.56	799	7.58	812	8.07	824	8.54	836	9.02	847	9.47	856	9.91
23746	3100	0.60	824	8.30	837	8.81	849	9.29	860	9.78	871	10.26	880	10.71
24512	3200	0.64	849	9.06	861	9.58	873	10.09	884	10.60	895	11.10	904	11.56

VOL CFM	OUT VEL FPM	VEL PRES IN. H <sub>2</sub> O	2.500" S.P. RPM	3.000" S.P. BHP	3.500" S.P. RPM	4.000" S.P. BHP	4.500" S.P. RPM	5.000" S.P. BHP	5.500" S.P. RPM	6.000" S.P. BHP	6.500" S.P. RPM	7.000" S.P. BHP	7.500" S.P. RPM	8.000" S.P. BHP
10724	1400	0.12	734	5.50										
11490	1500	0.14	743	5.84										
12256	1600	0.16	753	6.23										
13022	1700	0.18	767	6.66										
13788	1800	0.20	783	7.13										
14554	1900	0.23	800	7.62										
15320	2000	0.25	817	8.14										
16086	2100	0.27	834	8.71										
16852	2200	0.30	854	9.43										
17618	2300	0.33	871	10.08										
18384	2400	0.36	888	10.75										
19150	2500	0.39	905	11.45										
19916	2600	0.42	922	12.21										
20682	2700	0.45	939	13.04										
21448	2800	0.49	956	13.89										
22980	3000	0.56	992	15.71										
24512	3200	0.64	1029	17.73										
26044	3400	0.72	1070	19.97										
27576	3600	0.81	1114	22.48										
29108	3800	0.90	1157	25.14										
30640	4000	1.00	1202	28.02										

VOL CFM	OUT VEL FPM	VEL PRES IN. H <sub>2</sub> O	8.500" S.P. RPM	9.000" S.P. BHP	9.500" S.P. RPM	10.000" S.P. BHP	10.500" S.P. RPM	11.000" S.P. BHP	11.500" S.P. RPM	12.000" S.P. BHP	12.500" S.P. RPM	13.000" S.P. BHP	13.500" S.P. RPM	14.000" S.P. BHP
19916	2600	0.42	1356	34.86	1389	36.86								
20682	2700	0.45	1363	35.82	1396	38.06								
21448	2800	0.49	1373	37.04	1405	39.30								
22980	3000	0.56	1395	39.75	1424	42.05								
24512	3200	0.64	1425	42.82	1451	45.05								
26044	3400	0.72	1457	46.00	1483	48.43								
27576	3600	0.81	1491	49.45	1513	51.95								
29108	3800	0.90	1525	53.16	1551	55.71								
30640	4000	1.00	1559	57.25	1584	59.81								
32172	4200	1.10	1600	62.25	1625	64.99								
33704	4400	1.21	1633	66.78	1659	69.68								
35236	4600	1.32	1667	71.55	1693	74.56								
36768	4800	1.44	1701	76.68	1726	79.72								
38300	5000	1.56	1735	82.37	1760	85.28								
39832	5200	1.69	1769	88.18										

Performance based on 0.075 lbs. per cubic foot density (Air at 70F and 29.92" Hg Bar.)

The test result on which these ratings are based were obtained from test of Arrangement 1 AFSW fans. Performance shown is for AFSW fans with outlet duct. BHP does not include drive losses.



ARRANGEMENT 3

ARRANGEMENT 9 (LESS MOTOR AND DRIVE) AND ARRANGEMENT 1

ARRANGEMENT 10

CLASS I		ARR. 1	ARR. 3	ARR. 9	ARR. 10	CLASS II		ARR. 1	ARR. 3	ARR. 9	ARR. 10	CLASS III		ARR. 3
70%	48½	70%	75%	71%	49%	71%	75%	50¼						

CLASS I & II (Arrangements 1, 3, 9 & 10)																													
A		H								L				F				G											
All	J	TH	BH	UB	DB	TAU	TAD	BAU	BAD	TH	BH	UB	DB	TAU	TAD	BAU	BAD	TH	BH	UB	DB	TAU	TAD	BAU	BAD	All	DB	BAD	
41½	42	81¾	72¾	70¼	78½	93%	80%	68%	85%	65%	65%	71	71	66¼	85%	85%	66¼	38%					38%				29¼		29%

CLASS III (Arrangement 3)																										
A								J	H								L				F		G			
TH	BH	UB	DB	TAU	TAD	BAU	BAD	All	TH	BH	UB	DB	TAU	TAD	BAU	BAD	TH	BH	UB	DB	TAU	TAD	BAU	BAD	All	All
31¾	41¼	38	29½	34¼	28%	40%	25	42	72½	71%	67½	66½	88%	67¼	67%	88	66½	66½	71%	71%	67	88	88	67	38¼	29%

Due to Trane's policy of continuous product development, dimensions are subject to change. For complete dimension data, refer to the applicable submittal drawing.



## MECHANICAL SPECIFICATIONS — UTILITY FANS

**General** — Trane utility fans include housing, wheel, fan shaft, bearings and drives as a factory-assembled unit. All sheet metal parts are cleaned, conditioned and painted with enamel primer finish prior to final assembly. A final coat of grey enamel is applied to all exterior surfaces after final assembly.

**Housing** — Fan housings are constructed of heavy-gauge steel with the side sheets fastened to scroll sheets by means of a deep lock seam. A stiffener bead reinforces the sides and top of discharge.

Inlet collars on all utility fans extend beyond the fan housing to provide an uninterrupted duct connection. Inlet collars on all sizes are round. The standard discharge duct connection is a slip joint.

Precisely positioned cutoffs and aerodynamically spun inlet cones provide smooth airflow through the fan with minimum turbulence.

The housing on all sizes is convertible to eight standard discharges. A weatherproof hood shall be furnished on all belt-drive sizes and shall be furnished on direct-drive sizes where specified.

Motor supports on direct-drive and belt-drive units are adjustable. Bearing supports on belt-drive sizes are also adjustable. Bearing and motor supports are constructed of heavy steel.

**Fan Wheels** — Utility fans can be furnished with forward curved or backward inclined wheels. All blades are die cut and formed to provide identical, exact shapes. Swaged hubs are furnished on all wheels.

All wheels, FC and BI, are statically and dynamically balanced using the most modern electronic balancing equipment.

**Fan Shafts** — On all sizes, shafts are solid AISI C-1040 ground and polished steel. Close tolerances are maintained where the shaft makes contact with bearings and fan wheel hub. All shafts have a rust-preventive coating applied.

**Bearings** — Self-aligning, grease-lubricated, pillow block bearings are standard on all utility fans. A contact seal provides optimum grease retention and protection from contaminants. Bearings are selected for a minimum life of 200,000 hours at maximum cataloged operating conditions.

**Motors** — All motors shall be open drip-proof with either ball or sleeve bearings. Fractional horsepower motors are split phase or capacitor start and have a resilient base. Integral horsepower motors are induction with rigid base.

**Drives** — All V-belt drives for fractional horsepower motors are selected at 1.2 x motor horsepower. V-belt drives for integral horsepower motors are selected at 1.4 x motor horsepower.

**Ratings** — Trane utility fans have been tested and rated in accordance with AMCA Standard 210 and the Certified Ratings Program. They are licensed to bear the AMCA Certified Ratings Seal.

## MECHANICAL SPECIFICATIONS — CENTRIFUGAL FANS

**Ratings** — Trane centrifugal fans have been tested and rated in accordance with AMCA Standard 210 and the Certified Ratings Program. They are licensed to bear the AMCA Certified Ratings Seal.

Fan sizes 24 through 36 are capable of operating over the minimum pressure class limits as specified in AMCA Standard 2408-69.

**Housings** — Fan sizes 24 through 36 have welded octagonal scroll housings. All housings are reinforced with rigid bracing to increase structural integrity.

Inlet collars on all single width fans extend beyond the fan housing to provide an uninterrupted duct connection. The discharge duct connection is a slip joint on Class I and II fans, sizes 24 through 36. All Class III fans have flanged duct connections.

**Fan Wheels** — On fan sizes 24 through 36, wheels are non-overloading with ten deep, backward inclined airfoil blades.

**Bearings** — Standard heavy-duty bearings are selected for a minimum average life (AFBMA L-50) in excess of 100,000 hours at maximum cataloged operating conditions.

As an option, extra heavy-duty bearings are available with a minimum average life (AFBMA L-50) in excess of 400,000 hours at maximum cataloged operating conditions.

Since The Trane Company has a policy of continuous product improvement, it reserves the right to change design and specifications without notice.



COMMERCIAL AIR CONDITIONING DIVISION  
THE TRANE COMPANY, A DIVISION OF YORK INTERNATIONAL, INC.