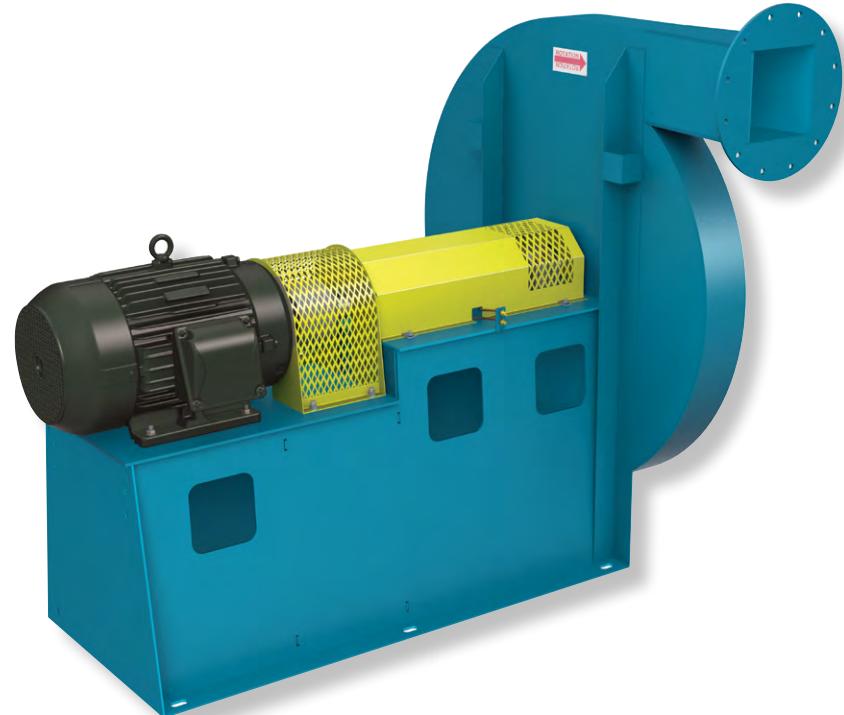




INDUSTRIAL PROCESS AND  
COMMERCIAL VENTILATION SYSTEMS

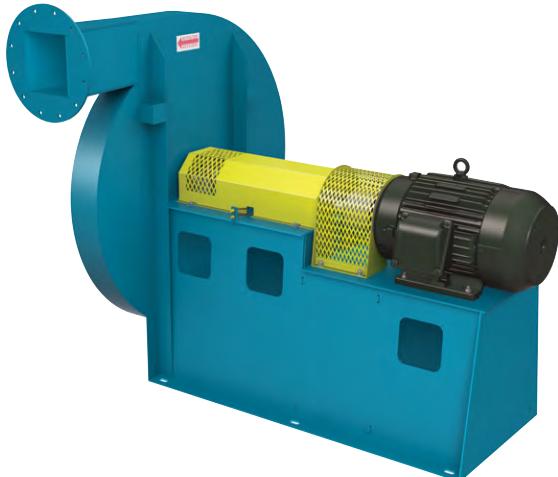
## TURBO PRESSURE BLOWERS

TBA | TBR



## Models

TBA | TBR



TBR  
Arrangement 8



TBR  
Arrangement 8  
(Drive Side)

Model TBA and TBR fans from Twin City Fan & Blower are constant pressure, variable volume blowers. Turbo pressure blowers are generally used in applications for relatively low volumes and high pressures. They are used primarily for handling air, gas, and fumes relatively free of dust and materials.

Twin City Fan & Blower's TBA and TBR turbo blowers provide uniform pressure through the operating range. Stable operation can be maintained from free delivery to shutoff by throttling at the discharge. The design volume of a particular fan can be varied by selecting one of the various wheel options that will fit within the housing.

Turbo blowers are most often sold as Arrangement 4 and Arrangement 8 direct drive packages.

### Typical Applications

- Glass blowing
- Air compression
- Furnace blowers
- Chemical processing
- Chip blowing
- Drying applications
- Combustion air
- Cooling
- Gas boosting
- Process systems

### Design Features

- Designed for continuous duty in high pressure applications
- Stable operation from free delivery to shutoff when dampered at the fan discharge with blast gate
- Uniform pressures throughout the operating range
- Compact, efficient low-cost arrangement

### Model TBA

- Wheel: air handling type with backward inclined blades for high-efficiency
- Capable of handling relatively high volumes and pressures
- Airflow to 29,000 CFM
- Pressures from 6" SP to 70" SP

### Model TBR

- Wheel: radial bladed with backplate and shroud for low volumes and high pressure
- Airflow to 10,000 CFM
- Pressures from 6" SP to 100" SP

# ARRANGEMENTS

## Arrangement 4

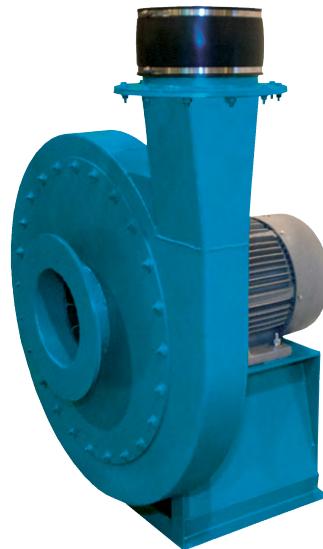
Arrangement 4 is the standard arrangement, with the wheel mounted directly on the motor shaft. The fan performance is dependent upon the RPM of the motor, which is usually a 3500 RPM motor. This drive arrangement is the most compact and has minimum maintenance and service requirements. Standard Arrangement 4 fans are suitable to 180°F operating temperature.

## Arrangement 8

Arrangement 8 is a direct-connect unit, similar to Arrangement 4. The wheel is mounted on a separate fan shaft and is mounted to the fan base with pillow block bearings (minimum L-10 40,000 hours). The fan shaft is connected to the motor shaft with a flexible coupling. Arrangement 8 blowers offer the ability to remove the motor for service without disturbing the fan assembly. Arrangement 8 units are limited to 300°F. For special arrangements and higher temperature requirements, please consult the factory.

## V-Belt Drive Arrangements

Twin City Fan & Blower's turbo blower has a wide performance range available with direct drive models which should be used whenever possible. All V-belt drive applications should be reviewed by the factory.



TBR  
Arrangement 4

# WHEEL DESIGN

## Wheel Construction

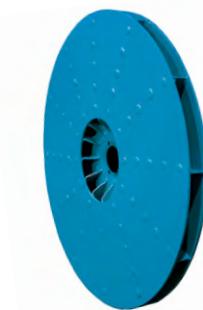
All wheels are made with care to insure maximum strength and reliability. Wheels have a self-centering, all steel taper-lock bushing. Lock screw holes are provided for positive convenient wheel removal without special tools. Wheels are statically and dynamically balanced on the most modern electronic equipment. Every blower unit is given a final running mechanical test and trim balance before shipment.

## TBA (Turbo Pressure Air Handling Blower)

The turbo air handling wheel is a more efficient type of wheel and is used for relatively high volumes of air. The wheel is constructed with heavy-gauge, backwardly inclined blades welded to a spun cone and heavy-gauge backplate. The backplate uses a taper-lock hub for easy wheel removal and self-centering reinstallation. The TBA wheel is generally suitable for clean air applications.



TBA  
Turbo Air Handling Wheel



TBR  
Turbo Radial Bladed Wheel

## TBR (Turbo Pressure Radial Blade Blower)

The turbo radial bladed wheel is designed for lower air volume at high pressures. The radial blades provide stable airflow over a wide range of airflows. The all-welded wheel uses a taperlock hub for easy removal and self-centering reinstallation. The TBR wheel is generally suitable for clean air applications.

# ACCESSORIES



Outlet Tube Adapter  
With Rubber Sleeve



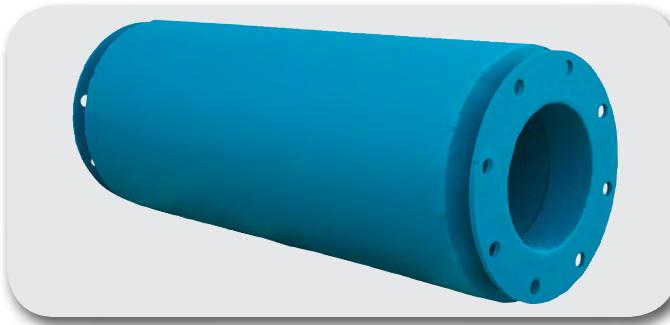
Shaft Seal



Inlet Filer With Cover



Inlet Filter



Inlet & Outlet Silencers

## Shaft Seal

Shaft seals are mounted on the drive side of the blower housing. They consist of a ceramic felt element in compression to minimize air leakage. However, they are not of the "gas-tight" design.

## Outlet Tube Adapter With Rubber Sleeve

This consists of a 4" long steel collar and flange which bolts to the blower discharge. A 6" long, 2-ply molded rubber slip-type connector with two hose clamps connects the adapter to the pipe line and helps to isolate vibration and noise transmission to the rest of the system. The connector is rated for pressures up to 5 psi and 180°F.

## Inlet Filter

Turbo blower wheels are designed for handling clean air only. An inlet filter is recommended when a turbo blower is installed in a dust-laden atmosphere to help keep the wheel clean and free of clogging, loading and erosion. The filter media is ultra synthetic. Filters are sized for a maximum pressure drop of 1" SP. The filter assembly includes a mounting flange drilled to match 125# ASA pattern (thickness of flange is manufacturer standard). The turbo blower is furnished with a flanged inlet for mounting the filter assembly.

## Inlet & Outlet Silencers

For applications requiring reduced noise levels, silencers can be provided. Silencers are aerodynamically and acoustically designed to significantly reduce noise emanating from the blower inlet or outlet while adding only minor resistance to the airflow (maximum pressure drop of 1" H<sub>2</sub>O SP). These silencers are designed for effective sound attenuation in the 63 to 8,000 Hz frequency range. The silencer is fabricated of a steel outer shell and a perforated inner shell. Silencers include mounting flanges and the turbo blower must have a flanged connection. The flange has a drilling pattern to match 125# ASA flange (thickness is manufacturer standard). Always add a shaft seal when quoting silencer to prevent noise emanating through the gap around the shaft.

## Inlet Filter/Silencer Combination

Designed to handle both a dirty atmosphere and noise. The filter/silencer is sized for 1½" SP pressure drop. The filter/silencer assembly normally comes with a flange that has a 125# ASA drilling pattern (thickness is manufacturer standard). Fan must be ordered with flanged inlet when ordering filter/silencer unit.

## ACCESSORIES

### Flanged Inlet

The flanged inlet enables attachment of rigid pipe connections on the blower inlet. The flange has a drilling pattern to match 125# ASA pipe flange. The thickness of the flange is not according to ASA standards.

### Outlet Blast Gate

This wafer type manual lever-operated butterfly valve is used to adjust air delivery and prevent motor overload. Reducing the flow will also reduce the power requirement and prevent motor overload.

On Model TBR fans, round outlet transitions are provided to allow direct mounting of the blast gate to the outlet flange. The valve has a bolt hole pattern to match 125# ASA pipe standard. Electric or pneumatic automatic actuators are available as an option upon request. Note: This valve configuration can be utilized as an inlet air control when used with and matched to the correct size blower flanged inlet.



Flanged Inlet



Outlet Blast Gate



## ENGINEERING DATA

### Model TBA – Bare Fan Weights\* and Data

SIZE	BARE FAN WT. (LBS.) IN ARR. 4	NOMINAL WHEEL DIA. (IN.)	NOMINAL WHEEL WT. (LBS.)	WR2 (LB-FT2)
706	130	12 <sup>3</sup> / <sub>16</sub>	14	2
710	130	12 <sup>3</sup> / <sub>16</sub>	14	2
806	155	13 <sup>1</sup> / <sub>16</sub>	17	4
810	155	13 <sup>1</sup> / <sub>16</sub>	18	4
906	200	15 <sup>1</sup> / <sub>16</sub>	23	5
910	222	15 <sup>1</sup> / <sub>16</sub>	24	5
1006	240	17 <sup>3</sup> / <sub>8</sub>	26	8
1010	270	17 <sup>3</sup> / <sub>8</sub>	28	8
1106	256	19 <sup>1</sup> / <sub>8</sub>	37	14
1110	288	19 <sup>1</sup> / <sub>8</sub>	37	14
1206	308	20 <sup>7</sup> / <sub>8</sub>	45	19
1210	347	20 <sup>7</sup> / <sub>8</sub>	45	19
1306	360	22 <sup>5</sup> / <sub>8</sub>	57	28
1308	383	22 <sup>5</sup> / <sub>8</sub>	57	28
1310	405	22 <sup>5</sup> / <sub>8</sub>	60	28
1406	420	24 <sup>3</sup> / <sub>8</sub>	63	37
1408	446	24 <sup>3</sup> / <sub>8</sub>	63	37
1410	472	24 <sup>3</sup> / <sub>8</sub>	68	37
1506	479	26 <sup>1</sup> / <sub>8</sub>	79	54
1508	509	26 <sup>1</sup> / <sub>8</sub>	79	54
1510	539	26 <sup>1</sup> / <sub>8</sub>	85	54
1706	669	29 <sup>5</sup> / <sub>8</sub>	154	129
1710	842	29 <sup>5</sup> / <sub>8</sub>	166	129

### Model TBR – Bare Fan Weights\* and Data

SIZE	BARE FAN WT. (LBS.) IN ARR. 4	NOMINAL WHEEL DIA. (IN.)	NOMINAL WHEEL WT. (LBS.)	WR2 (LB-FT2)
R11	100	11	8	0.6
R12	110	12	9	0.9
R13	120	13	10	1.2
R14	151	14	11	1.5
R15	166	15	12	2.0
R16	190	16	15	3.1
R18	200	18	21	6.1
R21	270	21	45	15
R23	300	23	47	17
R25	365	25	57	30
R27	400	27	75	48
R29	430	29	101	78
R31	560	31	130	121
R33	715	33	180	192

\*Fan Weight Only – Arr. 4 does not include motor.

# FAN SELECTION

Use the TBR/TBA selection chart below (Figure 1) with desired CFM and static pressure to determine if TBR, TBA, or both can give acceptable selections.

Select a fan based on efficiency, first cost and operating point on the fan curve. From the performance tables, select a fan based on CFM and SP (at standard density of 0.075 lb/ft<sup>3</sup>) closest to the value specified. When specified performance is at a density different than standard, it must be converted to the equivalent standard conditions before entering the performance tables.

Review the fan curve for your selection. Attempt to offer a fan with higher efficiency wherever possible.

## Example 1

Given: 1460 CFM, 35" SP

- Model TBR R23Q shows 12.9 BHP, use 15 HP motor
- Model TBR R25N shows 17.0 BHP, use 15 HP with 1.15 S.F. or 20 HP motor

R23Q is more efficient and should be selected unless operating point of R25N is required by the customer.

## Example 2

Given: 5000 CFM, 40" SP

- Model TBR R29Q shows 4980 CFM and 65.6 BHP
- Model TBA 1406P5 shows 5160 CFM and 47.7 BHP

Both selections are usable. The TBA is a better choice based on its higher efficiency.

The performance curve for each fan shows the relationship of CFM versus SP and also denotes recommended motor HP. Referring to the curve for Model TBR R-33:

CFM	SP	BHP	Motor Selection
4300	102.7	100	100 HP motor (1.0 or 1.15 SF)
4600	102	106	100 HP with 1.15 SF or 125 HP
5000	101	115	100 HP with 1.15 SF or 125 HP

It is normal to use turbo blowers with motors operating into the service factor.

## Density Ratios For Inlet Suction Conditions

If inlet pressure is suction or negative, static pressure required must be corrected by the inlet density ratio.

**Example:** Operating conditions 70°F at sea level. System resistance at fan inlet is 40". Density ratio for correcting inlet air density is as follows:

$$(407 - 40) \div 407 = 0.902$$

Equivalent static pressure to be used for fan selection from standard tables:

$$40 \div 0.902 = 44.36"$$

Actual air density at inlet =  $0.075 \times 0.902 = 0.0676$  lb/ft<sup>3</sup>

## Operation at Other RPMs or Variation of Fan Speed

CFM varies with fan speed.

Static pressure varies with square of fan speed.

Brake horsepower varies with cube of fan speed.

**Example:** Model TBA 1710P7 delivers 19900 CFM at 50" at 3500 RPM and 212 BHP. At 2900 RPM (50 Hz speed):

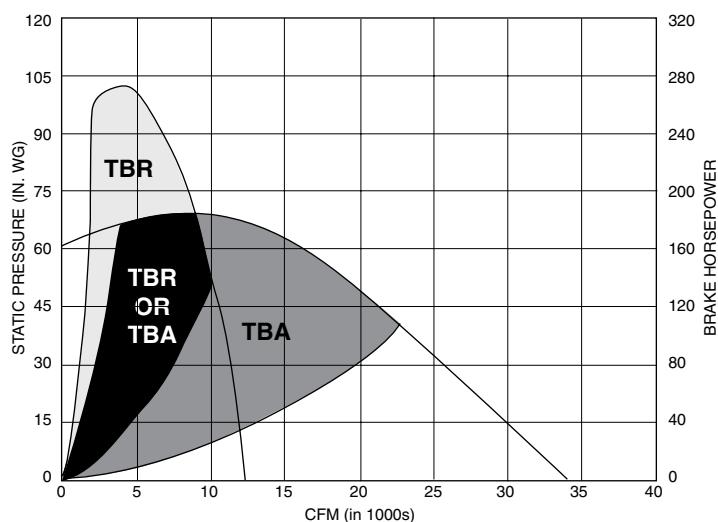
$$\text{CFM} = (2900 \div 3500) \times 19900 = 16489$$

$$\text{SP} = (2900 \div 3500)^2 \times 50 = 34.32$$

$$\text{BHP} = (2900 \div 3500)^3 \times 212 = 120.6$$

The above formula can be used to select fans for 50 Hz operation as well as for V-belt drive applications.

Figure 1. TBR/TBA Selection Chart



## TBA

SIZE	CFM	BHP
<b>Static Pressure = 6</b>		
706M3	574	0.92
706M5	690	1.12
706S3	876	1.41
706P3	935	1.68
710M7	937	1.44
706S5	965	1.72
806M3	1050	2.00
706P5	1118	2.14
806M5	1163	2.35
710S5	1194	1.89
710S7	1259	2.15
806S3	1377	2.80
806P3	1443	3.28
806S5	1492	3.37
710P7	1543	2.97
806P5	1672	4.08
810M7	1777	3.23
906M3	1888	4.05
906M5	2064	4.69
810S5	2134	4.04
810S7	2264	4.63
906S3	2329	5.63
810P7	2577	6.06
906S5	2606	6.94
1006M3	2608	6.72
910M7	2695	5.87
910S5	3183	7.41
910S7	3371	8.45
1010M7	4041	10.3
<b>Static Pressure = 7</b>		
706M3	400	0.74
706M5	546	0.97
710M7	716	1.22
706S3	762	1.29
706P3	842	1.59
706S5	848	1.58
806M3	917	1.85
706P5	1024	2.03
710S5	1038	1.74
806M5	1054	2.21
710S7	1101	1.99
806S3	1285	2.69
806P3	1360	3.17
806S5	1392	3.24
710P7	1438	2.86
806P5	1587	3.96
810M7	1611	3.06
906M3	1750	3.87
906M5	1923	4.52
810S5	1981	3.88
810S7	2092	4.43
906S3	2233	5.48
906P3	2347	6.48
810P7	2460	5.92
1006M3	2477	6.51
906S5	2491	6.74
910M7	2525	5.67
1006M5	2684	7.48
906P5	2781	8.15
910S5	3028	7.20
1006S3	3041	9.07
910S7	3197	8.17
910P7	3652	10.9
1106M3	3795	11.6
1010M7	3850	10.0
1010S5	4517	12.6
1010S7	4822	14.5
1110M7	5284	16.3
<b>Static Pressure = 8</b>		
706S3	606	1.11
706S5	708	1.40
706P3	734	1.47
806M3	765	1.66
710S5	841	1.54
710S7	908	1.77
706P5	918	1.90
806M5	929	2.05
806S3	1180	2.56
806P3	1267	3.07
806S5	1283	3.08
710P7	1324	2.74
810M7	1423	2.84
806P5	1496	3.84
906M3	1596	3.69
906M5	1781	4.35
810S5	1816	3.71
810S7	1919	4.22
906S3	2133	5.33
906P3	2252	6.31
1006M3	2337	6.30
810P7	2340	5.77

SIZE	CFM	BHP
<b>Static Pressure = 8</b>		
910M7	2353	5.48
906S5	2373	6.52
1006M5	2547	7.30
906P5	2677	7.97
910S5	2867	6.98
1006S3	2943	8.87
910S7	3022	7.93
1006P3	3082	10.4
1006S5	3235	10.7
910P7	3531	10.7
1106M3	3644	11.3
1010M7	3657	9.74
1106M5	3990	13.0
1010S5	4342	12.3
1106S3	4382	15.4
1010S7	4617	14.1
1110M7	5089	15.9
1010P7	5168	18.5
1206M3	5206	18.5
1110S5	5912	20.0
<b>Static Pressure = 9</b>		
706S5	541	1.18
806M3	591	1.44
706P3	594	1.30
806M5	775	1.84
706P5	793	1.74
806S3	1051	2.39
806S5	1160	2.89
806P3	1168	2.94
810M7	1178	2.52
710P7	1193	2.58
806P5	1397	3.70
906M3	1424	3.46
810S5	1634	3.49
906M5	1635	4.15
810S7	1732	3.97
906S3	2027	5.15
906P3	2154	6.12
910M7	2166	5.24
1006M3	2186	6.11
810P7	2216	5.61
906S5	2248	6.29
1006M5	2408	7.14
906P5	2570	7.77
910S5	2701	6.77
1006S3	2841	8.66
910S7	2845	7.69
1006P3	2776	9.71
1006S5	2860	9.90
1010M7	3046	8.90
1106M3	3142	10.3
910P7	3151	10.1
1006P5	3273	12.2
1106M5	3468	12.0
1010S5	3787	11.4
1010S7	4001	13.0
1106S3	4034	14.6
1106P3	4222	17.1
1110M7	4485	14.9
1106S5	4509	18.0
1206M3	4682	17.3
1010P7	4746	17.7
1106P5	5027	21.6
1106S3	5360	18.8
1110S7	5646	21.2
1306M3	5673	24.5
1206S3	5712	24.0
1206P3	5924	28.0
1306M5	6031	27.7
1308M3	6063	25.8
1308M5	6459	28.5
1210M7	6479	24.4
1110P7	6479	28.6
1206S5	6499	29.8
1306S3	7061	34.3
1210S5	7595	30.7
1210S7	8072	34.8
1408M3	8170	39.0
1310M7	8857	37.7
1310S7	10273	49.4
1410M7	11819	56.8
<b>Static Pressure = 10</b>		
706P3	358	0.93
706P5	630	1.51
806S3	898	2.15
806S5	1026	2.67
710P7	1030	2.36
806P3	1058	2.79
906M3	1229	3.18
806P5	1289	3.53
810S5	1421	3.22
906S5	1485	3.91
810S7	1521	3.67
906S3	1908	4.97
910M7	1961	4.94
1006M3	2021	5.88
906P3	2047	5.94
810P7	2086	5.44
906S5	2112	6.05
1006M5	2265	6.93
906P5	2458	7.56
910S5	2526	6.55
910S7	2659	7.43
1006S3	2733	8.43
1006P3	2883	9.94
1006S5	2992	10.1

SIZE	CFM	BHP
<b>Static Pressure = 10</b>		
1010M7	3258	9.20
910P7	3282	10.3
1106M3	3320	10.6
1006P5	3383	12.5
1106M5	3643	12.3
1010S5	3979	11.7
1106S3	4154	14.9
1010S7	4206	13.3
1106P3	4333	17.5
1106S5	4654	18.4
1110M7	4689	15.2
1206M3	4863	17.8
1010P7	4888	18.0
1106P5	5153	22.0
1206M5	5374	20.6
1110S5	5548	19.2
1206S3	5840	24.3
1306M3	5851	25.0
1110P7	5855	21.6
1308M3	6231	26.2
1110P7	6623	29.0
1308M5	6629	28.9
1210M7	6704	24.9
1210S5	7799	31.2
1210S7	8309	35.6
1310M7	9078	38.3
<b>Static Pressure = 11</b>		
806S3	705	1.81
806M3	591	1.44
806P3	1168	2.94
810M7	1178	2.52
710P7	1193	2.58
806P5	1397	3.70
906M3	1424	3.46
810S5	1634	3.49
906M5	1635	4.15
810S7	1732	3.97
906S3	2027	5.15
906P3	2154	6.12
910M7	2166	5.24
1006M3	2186	6.11
810P7	2216	5.61
906S5	2248	6.29
1006M5	2408	7.14
906P5	2570	7.77
910S5	2701	6.77
1006S3	2841	8.66
910S7	2845	7.69
1006P3	2776	9.71
1006S5	2860	9.90
1010M7	3046	8.90
1106M3	3142	10.3
910P7	3151	10.1
1006P5	3273	12.2
1106M5	3468	12.0
1010S5	3787	11.4
1010S7	4001	13.0
1106S3	4034	14.6
1106P3	4222	17.1
1110M7	4485	14.9
1106S5	4509	18.0
1206M3	4682	17.3
1010P7	4746	17.7
1106P5	5027	21.6
1206M5	5168	20.2
1110S5	5360	18.8
1110S7	5646	21.2
1306M3	5673	24.5
1206S3	5712	24.0
1206P3	5924	28.0
1306M5	6031	27.7
1308M3	6063	25.8
1308M5	6459	28.5
1210M7	6479	24.4
1110P7	6479	28.6
1206S5	6499	29.8
1306S3	7061	34.3
1210S5	7595	30.7
1210S7	8072	34.8
1408M3	8170	39.0
1310M7	8857	37.7
1310S7	10273	49.4
1410M7	11819	56.8
<b>Static Pressure = 12</b>		
806S5	674	2.06
906M3	719	2.35
806P3	758	2.26
806P5	1024	3.07
906M5	1085	3.23
910M7	1260	3.77
906S3	1605	4.49
1006M3	1643	5.22
810P7	1789	5.00
906S5	1799	5.49

SIZE	CFM	BHP
<b>Static Pressure = 12</b>		
906P3	1802	5.57
1006M5	1964	6.37
910S5	2121	5.94
906P5	2213	7.13
910S7	2252	6.74
1006S3	2486	7.99
1006P3	2662	9.51
1006S5	2719	9.64
1010M7	2819	8.51
1106M3	2950	9.98
910P7	3015	9.88
1006P5	3157	11.9
1106M5	3292	11.7
1010S5	3590	11.1
1010S7	3791	12.6
1106S3	3911	14.3
1106P3	4105	16.8
1110M7	4274	

# SELECTION CHARTS

## TBA

SIZE	CFM	BHP
<b>Static Pressure = 15</b>		
906S5	1177	4.18
906P3	1309	4.65
1006M5	1311	5.02
1010M7	1566	5.96
906P5	1755	6.24
1006S3	1984	7.00
1006S5	2228	8.55
1106M3	2269	8.62
1006P3	2273	8.84
910P7	2544	9.05
1106M5	2742	10.6
1006P5	2772	11.2
1010S5	2905	9.91
1010S7	3093	11.3
1106S3	3501	13.3
1110M7	3560	13.3
1106P3	3728	15.8
1206M3	3860	15.5
1106S5	3884	16.2
1010P7	4150	16.5
1206M5	4339	18.3
1106P5	4498	20.1
1110S5	4547	17.4
1110S7	4785	19.6
1306M3	4934	22.4
1206S3	5167	22.4
1308M3	5318	23.9
1306M5	5337	25.9
1206P3	5420	26.2
1210M7	5544	22.7
1308M5	5743	26.7
1206S5	5823	27.7
1110P7	5888	27.0
1406M3	6281	32.6
1306S3	6370	32.3
1308S3	6456	33.3
1206P5	6548	33.5
1306P3	6550	37.4
1406M5	6722	37.4
1210S5	6746	28.5
1306S5	6973	38.5
1308P3	7094	40.1
1210S7	7118	32.3
1308S5	7196	38.4
1408M3	7407	36.8
1306P5	7542	47.2
1406S3	7846	46.0
1310M7	7915	35.3
1408M5	7939	40.8
1406P3	8049	53.3
1210P7	8302	43.8
1308P5	8476	52.9
1406S5	8483	54.3
1408S3	8711	50.1
1506M3	9030	51.2
1508M3	9396	52.8
1408P3	9479	59.4
1310S7	9510	48.1
1506M5	9609	58.0
1508M5	10017	58.4
1408S5	10074	61.5
1410M7	10829	53.9
1508S3	10863	71.0
1506S3	11304	71.7
1310P7	11457	61.3
1410S7	12695	71.2
1510M7	14217	79.2
1410P7	15318	90.5
1510S7	16412	102.0
1510P7	19859	130.0
<b>Static Pressure = 16</b>		
906P3	1063	4.04
906P5	1558	5.81
1006S3	1767	6.48
1106M3	2004	8.01
1006S5	2040	8.08
1006P3	2123	8.52
910P7	2350	8.64
1106M5	2535	10.1
1010S5	2618	9.32
1006P5	2625	10.9
1010S7	2812	10.6
1110M7	3264	12.6
1106S3	3337	13.0
1106P3	3588	15.4
1206M3	3617	15.0
1106S5	3706	15.8
1010P7	3989	16.1
1206M5	4131	17.9
1110S5	4319	16.9
1106P5	4356	19.7
1110S7	4555	19.1
1306M3	4741	21.9

SIZE	CFM	BHP
<b>Static Pressure = 16</b>		
1206S3	5023	22.0
1308M3	5106	23.4
1306M5	5155	25.3
1206P3	5283	25.8
1210M7	5289	22.2
1308M5	5552	26.2
1206S5	5647	27.1
1110P7	5732	26.6
1406M3	6100	32.1
1306S3	6195	31.8
1308S3	6300	32.9
1206P5	6396	33.0
1306P3	6409	37.0
1210S5	6521	28.1
1406M5	6551	36.9
1306S5	6782	37.8
1210S7	6877	31.8
1308P3	6952	39.7
1308S5	7032	37.9
1408M3	7202	36.2
1306P5	7398	46.7
1310M7	7663	34.6
1406S3	7683	45.5
1408M5	7739	40.2
1406P3	7914	52.8
1210P7	8137	43.2
1406S5	8309	53.6
1308P5	8340	52.4
1408S3	8550	49.6
1506M3	8813	50.3
1508M3	9196	52.1
1310S7	9315	47.7
1408P3	9333	59.0
1506M5	9403	57.2
1508M5	9819	57.6
1408S5	9898	60.8
1410M7	10570	53.1
1508S3	10704	70.4
1506S3	11084	70.8
1408P5	11140	78.8
1310P7	11249	61.0
1508P3	11590	83.3
1508S5	11919	81.9
1506S5	12270	85.3
1410S7	12483	70.7
1510M7	13947	78.3
1410P7	15081	90.0
1706M3	15611	109.0
1510S7	16186	102.0
1510P7	19592	129.0
1710M7	21575	151.0
<b>Static Pressure = 17</b>		
906P5	1314	5.23
1006S3	1509	5.80
1106M3	1715	7.32
1006S5	1837	7.56
1006P3	1954	8.13
910P7	2110	8.09
1010S5	2264	8.54
1106M5	2298	9.53
1006P5	2466	10.5
1010S7	2475	9.86
1110M7	2903	11.7
1106S3	3155	12.6
1206M3	3353	14.4
1106P3	3440	15.1
1106S5	3517	15.3
1010P7	3820	15.8
1206M5	3917	17.4
1110S5	4079	16.4
1106P5	4206	19.3
1110S7	4313	18.6
1306M3	4543	21.4
1206S3	4872	21.5
1308M3	4882	22.8
1306M5	4971	24.8
1210M7	5023	21.6
1206P3	5141	25.3
1308M5	5356	25.7
1206S5	5467	26.4
1110P7	5571	26.3
1406M3	5915	31.6
1306S3	6019	31.3
1308S3	6139	32.5
1206P5	6242	32.5
1306P3	6265	36.5
1210S5	6289	27.6
1406M5	6378	36.3
1306S5	6591	37.2
1308S5	6863	37.3
1408M3	6987	35.6
<b>Static Pressure = 18</b>		
1306P5	7254	46.1
1310M7	7402	33.9
1406S3	7518	45.0
1408M5	7534	39.6
1406P3	7778	52.3
1210P7	7970	42.7
1406S5	8136	53.0
1308P5	8202	51.8
1408S3	8386	49.1
1506M3	8594	49.4
1406P5	8879	65.4
1508M3	8990	51.4
1310S7	9117	47.3
1408P3	9184	58.6
1506M5	9197	56.4
1508M5	9617	56.9
1408S5	9720	60.1
1410M7	10304	52.3
1508S3	10541	69.9
1506P3	10889	79.0
1408P5	10997	78.2
1310P7	11040	60.6
1508P3	11441	82.8
1508S5	11742	81.0
1506S5	12016	84.1
1410S7	12270	70.3
1510M7	13673	77.3
1410P7	14845	89.5
1706M3	15342	108.0
1510S7	15988	101.0
1706M5	16192	118.0
1510P7	19326	129.0
1710M7	21290	150.0
<b>Static Pressure = 19</b>		
1406S5	1316	6.18
1006P3	1524	6.95
1106M3	1569	7.65
1006P5	2098	9.55
1106S3	2701	11.5
1206M3	2763	12.9
1106S5	3084	14.1
1506P3	3111	14.4
1406M5	3816	34.6
1010P7	3431	14.9
1210S7	3482	16.2
1206M5	3474	16.2
1110S5	3519	15.1
1110S7	3758	17.1
1106P5	3881	18.6
1306M3	4128	20.3
1308M3	4396	21.4
1210M7	4421	20.0
1206S3	4535	20.6
1306M5	4583	23.6
1206P3	4840	24.3
1308M5	4939	24.6
1206S5	5078	25.2
1110P7	5236	25.6
1406M3	5533	30.5
1306S3	5665	30.3
1308S3	5790	31.6
1210S5	5795	26.6
1206P5	5926	31.4
1306P3	5969	35.6
1406M5	6021	35.2
1210S7	6118	30.1
1306S5	6213	35.9
1308P3	6495	38.5
1106S5	6509	36.3
1408M3	6525	34.2
1310M7	6842	32.3
1306P5	6965	45.0
1408M5	7110	38.4
1406S3	7188	43.9
1306M5	7471	20.9
1306P3	7481	24.2
1206P3	4994	24.8
1308M5	5152	25.2
1206S5	5278	25.8
1110P7	5406	26.0
1406M3	5726	31.1
1306S3	5842	30.8
1308S3	5969	32.0
1210S5	6048	27.2
1206P5	6086	32.0
1306P3	6119	36.1
1406M5	6202	35.8
1210S7	6378	30.8
1306S5	6402	36.6
1410M7	7950	50.6
1508S3	10207	68.7
1406S5	7788	51.7
1308P5	7917	50.7
1408S3	8047	48.1
1506M3	8150	47.6
1508M3	8555	49.9
1406P5	8606	64.2
1310S7	8713	46.4
1506M5	8780	54.8
1408P3	8873	57.8
1508M5	9202	55.5
1408S5	9358	58.6
1410M7	9750	50.8
1508S3	10207	68.7
1406S5	7788	51.7
1308P5	7917	50.7
1408S3	8047	48.1
1506S3	10439	68.2
1506P3	10562	77.8
1310P7	10620	59.8
1408P5	10703	76.9
1508P3	11134	81.9
1508S5	11383	79.3
1506S5	11526	81.8
1410S7	11839	69.4
1506P5	12244	99.2
1510M7	13111	75.3
1508P3	13284	109.0
1410P7	14374	88.5
1706M3	14782	105.0
1510S7	15496	100.0
1706M5	15691	116.0
1510P7	18798	127.0
1706S3	18837	146.0
1710M7	20704	147.0
1710S7	23950	191.0

SIZE	CFM	BHP
<b>Static Pressure = 16</b>		

## TBA

SIZE	CFM	BHP
<b>Static Pressure = 21</b>		
1206S5	4646	24.0
1110P7	4864	24.7
1406M3	5132	29.3
1210S5	5250	25.2
1306S3	5301	29.2
1308S3	5405	30.5
1210S7	5568	28.6
1206P5	5587	30.3
1406M5	5644	33.9
1306P3	5656	34.6
1306S5	5831	34.6
1408M3	6018	32.8
1308S5	6133	35.2
1308P3	6151	37.4
1310M7	6222	30.3
1408M5	6663	37.1
1306P5	6673	43.9
1406S3	6850	42.9
1406P3	7204	50.2
1210P7	7269	40.6
1406S5	7437	50.5
1308P5	7614	49.5
1408S3	7686	46.9
1506M3	7692	46.0
1508M3	8085	48.4
1310S7	8299	45.3
1406P5	8330	63.0
1506M5	8351	53.2
1408P3	8548	56.8
1508M5	8771	54.1
1408S5	8981	57.1
1410M7	9163	48.8
1508S3	9859	67.4
1506S3	10014	66.5
1310P7	10204	59.1
1506P3	10229	76.5
1408P5	10395	75.4
1508P3	10815	80.8
1508S5	11014	77.6
1506S5	11049	79.6
1410S7	11399	68.3
1506P5	11883	97.3
1510M7	12522	73.3
1508P5	12980	107.0
1410P7	13903	87.5
1706M3	14190	101.0
1510S7	15029	99.0
1706M5	15162	114.0
1706P3	17641	157.0
1510P7	18274	126.0
1706S3	18341	144.0
1710M7	20106	144.0
1706S5	20893	177.0
1710S7	23452	190.0
1710P7	28427	242.0
<b>Static Pressure = 22</b>		
1106S3	1690	8.23
1110S7	2257	12.7
1106S5	2300	11.7
1106P3	2496	12.8
1010P7	2553	12.4
1206M5	2567	13.5
1106P5	3309	17.0
1306M3	3439	18.3
1308M3	3553	18.8
1206S3	3888	18.9
1306M5	3937	21.5
1308M5	4239	22.6
1206P3	4325	23.0
1206S5	4406	23.2
1110P7	4660	24.2
1406M3	4922	28.7
1210S5	4945	24.4
1306S3	5111	28.6
1308S3	5198	29.9
1210S7	5262	27.7
1206P5	5406	29.7
1406M5	5447	33.2
1306P3	5493	34.0
1306S5	5635	33.9
1408M3	5743	31.9
1310M7	5874	29.1
1308S5	5935	34.6
1308P3	5965	36.8
1408M5	6429	36.4
1306P5	6524	43.3
1406S3	6677	42.3
1406P3	7053	49.6
1210P7	7085	40.2
1406S5	7257	49.8
1308P5	7454	48.9
1506M3	7458	45.3
1408S3	7493	46.3

SIZE	CFM	BHP
<b>Static Pressure = 22</b>		
1508M3	7835	47.7
1310S7	8086	44.8
1506M5	8132	52.4
1406P5	8191	62.4
1408P3	8378	56.3
1508M5	8549	53.5
1408S5	8784	56.4
1410M7	8851	47.8
1508S3	9678	66.8
1506S3	9800	65.6
1310P7	9995	58.7
1506P3	10060	75.8
1408P5	10237	74.7
1508P3	10651	80.2
1506S5	10812	78.5
1508S3	10825	76.8
1410S7	11175	67.7
1506P5	11705	96.3
1510M7	12217	72.2
1508P5	12824	106.0
1410P7	13666	87.0
1706M3	13886	99.4
1510S7	14794	98.4
1706M5	14884	112.0
1706P3	14745	156.0
1510P7	18012	125.0
1706S3	18082	143.0
1710M7	19803	143.0
1706S5	20626	176.0
1710S7	23201	189.0
1710P7	28138	241.0
<b>Static Pressure = 23</b>		
1106S5	1988	10.7
1106P3	2223	11.9
1106P5	3084	16.3
1306M3	3182	17.5
1308M3	3234	17.6
1206S3	3604	18.0
1306M5	3694	20.6
1308M5	3980	21.8
1206P3	4132	22.5
1206S5	4141	22.3
1110P7	4441	23.5
1210S5	4604	23.4
1406M3	4705	28.0
1306S3	4919	28.0
1210S7	4930	26.6
1308S3	4978	29.2
1206P5	5217	29.2
1406M5	5244	32.4
1306P3	5324	33.4
1306S5	5436	33.2
1408M3	5451	30.9
1310M7	5488	27.8
1308S5	5728	34.0
1308P3	5768	36.1
1408P3	6186	35.7
1306P5	6376	42.8
1406S3	6499	41.7
1210P7	6896	39.7
1406P3	6898	49.1
1406S5	7074	49.1
1506M3	7221	44.5
1308P5	7286	48.2
1408S3	7292	45.7
1508M3	7576	46.8
1310S7	7867	44.2
1506M5	7911	51.6
1406P5	8052	61.8
1408P3	8200	55.7
1508M5	8322	52.8
1410M7	8525	46.7
1408S5	8582	55.7
1508S3	9491	66.1
1506S3	9586	64.8
1310P7	9785	58.3
1506P3	9890	75.1
1408P5	10076	74.0
1508P3	10482	79.6
1506S5	10575	77.4
1508S5	10631	76.0
1410S7	10949	67.2
1506P5	11529	95.4
1510M7	11905	71.2
1508P5	12667	105.0
1410P7	13430	86.5
1706M3	13582	97.7
1510S7	14556	97.8
1706M5	14600	111.0
1706P3	17270	155.0
1510P7	17752	125.0
1706S3	17815	141.0
1710M7	19495	141.0

SIZE	CFM	BHP
<b>Static Pressure = 23</b>		
1706S5	20348	174.0
1706P5	20381	203.0
1710S7	22948	188.0
1710P7	27849	240.0
<b>Static Pressure = 24</b>		
1106P3	1899	10.6
1106P5	2831	15.5
1306M3	2898	16.5
1308M3	2908	16.4
1206S3	3282	17.0
1306M5	3433	19.6
1308M5	3703	20.9
1206S5	3857	21.3
1206P3	3925	21.9
1110P7	4196	22.8
1210S5	4215	22.2
1406M3	4479	27.2
1210S7	4559	25.4
1306S3	4722	27.4
1308S3	4742	28.4
1206P5	5017	28.6
1406M5	5031	31.6
1310M7	5052	26.2
1408M3	5143	29.9
1306P3	5150	32.8
1306S3	5236	32.5
1308S5	5511	33.4
1308P3	5563	35.3
1408M5	5933	34.9
1406S3	6319	41.1
1210P7	6699	39.2
1406P3	6740	48.5
1406S5	6890	48.4
1506M3	6977	43.7
1408S3	7082	45.1
1308P5	7110	47.5
1508M3	7307	45.9
1310S7	7639	43.5
1506M5	7686	50.8
1406P5	7912	61.2
1408P3	8015	55.1
1508M5	8088	52.0
1410M7	8183	45.5
1408S5	8375	55.0
1508S3	9297	65.4
1506S3	9371	64.0
1310P7	9570	57.8
1506P3	9717	74.4
1408P5	9912	73.2
1508P3	10309	79.0
1506S5	10338	76.3
1508S3	10431	75.2
1410S7	10721	66.6
1506P5	11353	94.5
1510M7	11583	70.1
1508P5	12506	105.0
1410P7	13194	86.0
1706M3	13281	96.1
1706M5	14312	110.0
1510S7	14316	97.1
1706P3	17079	154.0
1510P7	17491	124.0
1706S3	17537	140.0
1710M7	19182	140.0
1706S5	20058	173.0
1706P5	20189	202.0
1710S7	22694	187.0
1710P7	27562	239.0
<b>Static Pressure = 25</b>		
1308M3	2533	14.8
1106P5	2537	14.5
1306M3	2595	15.3
1206S3	2914	15.6
1306M5	3138	18.4
1308M5	3395	19.8
1206S5	3562	20.3
1206P3	3702	21.2
1210S5	3734	20.6
1110P7	3910	21.8
1210S7	4105	23.9
1406M3	4244	26.4
1308S3	4490	27.6
1306S5	4515	26.7
1310M7	4528	24.1
1206P5	4806	28.0
1406M5	4807	30.7
1408M3	4823	28.7
1306P3	4970	32.1
1306S5	5030	31.7
1308S5	5284	32.7
1710M7	5346	34.5

SIZE	CFM	BHP
<b>Static Pressure = 25</b>		
1408M5	5669	34.1
1306P5	6078	41.7
1406S3	6136	40.5
1210P7	6491	38.7
1406P3	6577	47.8
1406S5	6704	47.6
1506M3	6728	42.9
1408S3	6862	44.4
1308P5	6926	46.8
1508M3	7024	44.9
1310S7	7407	42.8
1506M5	7456	50.0
1406P5	7772	60.7
1408P3	7819	54.4
1410M7	7821	44.2
1508M5	7846	51.2
1408S3	8161	54.3
1508S3	9095	64.7
1506S3	9156	63.2
1310P7	9351	57.4
1506P3	9543	73.6
1406M3	9746	41.4
1408M5	10102	75.3</

# SELECTION CHARTS

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SIZE	CFM	BHP
<b>Static Pressure = 28</b>		
1506M5	6723	47.0
1508M5	7076	48.5
1408P3	7165	51.9
1406P5	7340	58.9
1408S5	7477	52.1
1508S3	8443	62.5
1506S3	8507	60.9
1310P7	8671	55.8
1506P3	8997	71.3
1408P5	9199	69.9
1506S5	9402	72.3
1508P3	9549	76.0
1508S5	9586	72.2
1410S7	9767	63.7
1510M7	10168	64.7
1506P5	10647	90.8
1508P5	11832	101.0
1706M3	12076	89.7
1410P7	12253	84.2
1706M5	13172	104.0
1510S7	13332	94.3
1706P3	16269	151.0
1706S3	16297	133.0
1510P7	16449	122.0
1710M7	17871	134.0
1706S5	18731	165.0
1706P5	19371	197.0
1710S7	21668	184.0
1710P7	26419	235.0
<b>Static Pressure = 29</b>		
1206P3	2435	16.2
1406M3	3129	21.6
1308S3	3264	22.5
1408M3	3358	22.4
1306S3	3509	22.7
1406M5	3740	25.7
1206P5	3770	24.3
1306S5	4112	27.9
1306P3	4174	28.8
1308S5	4250	28.9
1308P3	4361	30.4
1408M5	4459	29.7
1406S3	5340	37.3
1306P5	5443	39.2
1210P7	5504	35.3
1506M3	5660	39.0
1508M3	5759	39.8
1408S3	5848	40.8
1406P3	5881	44.8
1406S5	5918	44.2
1410M7	5971	36.5
1308P5	6095	43.3
1310S7	6372	39.3
1506M5	6463	45.9
1508M5	6799	47.5
1408P3	6928	50.9
1406P5	7190	58.2
1408S5	7232	51.3
1508S3	8209	61.7
1506S3	8284	60.0
1310P7	8436	55.2
1506P3	8807	70.5
1408P5	9001	69.0
1506S5	9166	71.4
1508P3	9338	75.1
1508S5	9361	71.4
1410S7	9512	62.9
1510M7	9773	63.1
1506P5	10469	89.9
1508P5	11652	99.9
1706M3	11768	88.2
1410P7	12013	83.6
1706M5	12886	103.0
1510S7	13081	93.5
1706S3	15978	132.0
1706P3	16055	150.0
1510P7	16191	121.0
1710M7	17527	133.0
1706S5	18334	163.0
1706P5	19154	195.0
1710S7	21407	183.0
1710P7	26135	234.0
<b>Static Pressure = 30</b>		
1406M3	2653	19.3
1308S3	2877	20.6
1306S3	3163	21.1
1406M5	3397	23.9
1206P5	3431	22.9
1306S5	3841	26.7
1308S5	3940	27.5
1306P3	3947	27.8
1408M5	4090	28.1

SIZE	CFM	BHP
<b>Static Pressure = 30</b>		
1308P3	4097	29.2
1406S3	5117	36.4
1210P7	5186	34.1
1306P5	5276	38.5
1410M7	5285	33.2
1506M3	5369	37.9
1508M3	5406	38.3
1408S3	5553	39.6
1406P3	5693	43.9
1406S5	5705	43.2
1308P5	5856	42.2
1310S7	6068	38.1
1506M5	6190	44.7
1508M5	6510	46.4
1408P3	6678	49.8
1408S5	6976	50.4
1406P5	7036	57.5
1508S3	7966	60.7
1310P7	8194	54.5
1506P3	8613	69.7
1408P5	8795	68.1
1506S5	8927	70.3
1508P3	9117	74.2
1508S5	9128	70.6
1410S7	9252	62.0
1510M7	9352	61.3
1506P5	10290	89.0
1706M3	11458	86.8
1508P5	11466	98.9
1410P7	11767	83.1
1706M5	12598	101.0
1510S7	12827	92.7
1706S3	15669	130.0
1706P3	15837	148.0
1510P7	15934	120.0
1710M7	17177	131.0
1706S5	17925	160.0
1706P5	18927	194.0
1710S7	21145	182.0
1710P7	25850	233.0
<b>Static Pressure = 31</b>		
1306S3	2675	18.6
1406M5	2914	21.2
1206P5	3030	21.1
1306S5	3546	25.2
1308S5	3607	25.8
1408M5	3690	26.3
1306P3	3705	26.6
1308P3	3826	27.9
1410M7	4138	27.4
1210P7	4810	32.5
1406S3	4881	35.3
1508M3	5032	36.5
1506M3	5063	36.6
1306P5	5103	37.8
1408S3	5241	38.3
1406S5	5487	42.1
1406P3	5499	43.0
1308P5	5601	41.0
1310S7	5736	36.8
1506M5	5901	43.3
1508M5	6209	45.2
1408P3	6411	48.5
1408S5	6709	49.4
1406P5	6881	56.8
1508S3	7709	59.7
1506S3	7824	58.3
1310P7	7940	53.7
1506P3	8415	68.8
1408P5	8579	67.1
1506S5	8684	69.2
1508P3	8889	73.2
1508S5	8889	69.7
1510M7	8895	59.2
1410S7	8984	61.0
1506P5	10111	88.1
1706M3	11146	85.5
1508P5	11273	97.9
1410P7	11516	82.4
1706M5	12306	99.8
1510S7	12569	91.9
1706S3	15366	129.0
1706P3	15616	147.0
1510P7	15678	120.0
1710M7	16818	130.0
1706S5	17521	158.0
1706P5	18691	192.0
1710S7	20881	181.0
1710P7	25565	232.0
<b>Static Pressure = 32</b>		
1206P5	2493	18.7
1306S5	3214	23.5

SIZE	CFM	BHP
<b>Static Pressure = 32</b>		
1308S5	3228	23.6
1406P3	3442	25.3
1308P3	3557	26.7
1210P7	4292	30.2
1406S3	4625	34.1
1508M3	4654	34.5
1506M3	4735	35.1
1408S3	4905	36.8
1306P5	4921	37.0
1406S5	5260	41.0
1406P3	5296	42.0
1308P5	5335	39.7
1310S7	5361	35.3
1506M5	5595	41.8
1508M5	5892	43.8
1408P3	6132	47.2
1408S5	6430	48.3
1406P5	6724	56.1
1508S3	7440	58.6
1506S3	8441	68.1
1506S3	7590	57.3
1310P7	7670	52.8
1506P3	8211	67.9
1408P5	8353	66.0
1510M7	8396	56.9
1506S5	8441	68.1
1508S5	8640	68.8
1508P3	8652	72.1
1410S7	8706	59.9
1506P5	9932	87.2
1706M3	10830	84.2
1508P5	11074	96.9
1410P7	11263	81.8
1706M5	12009	98.4
1510S7	12304	91.0
1706S3	15064	127.0
1706P3	15393	146.0
1510P7	15420	119.0
1710M7	16450	128.0
1706S5	17140	155.0
1706P5	18446	191.0
1710S7	20614	180.0
1710P7	25280	231.0
<b>Static Pressure = 33</b>		
1306P3	3156	23.9
1308P3	3300	25.5
1508M3	4263	32.4
1406S3	4339	32.6
1506M3	4380	33.4
1408S3	4537	35.0
1306P5	4725	36.1
1310S7	4907	33.4
1406S5	5019	39.8
1308P5	5051	38.3
1406P3	5084	40.9
1506M5	5267	40.1
1508M5	5552	42.3
1408P3	5846	45.8
1408S5	6138	47.1
1406P5	6563	55.4
1508S3	7156	57.4
1506S3	7350	56.3
1310P7	7388	51.8
1510M7	7839	54.1
1506P3	8002	66.9
1408P5	8118	64.9
1506S5	8195	67.0
1508S5	8383	67.8
1508P3	8408	70.9
1410S7	8415	58.8
1506P5	9753	86.4
1706M3	10509	82.9
1508P5	10867	95.8
1410P7	11007	81.1
1706M5	11711	97.0
1510S7	12032	90.0
1706S3	14764	125.0
1510P7	15161	119.0
1706P3	15170	145.0
1710M7	16069	127.0
1706S5	16774	153.0
1706P5	18193	189.0
1710S7	20344	179.0
1710P7	24995	230.0
<b>Static Pressure = 34</b>		
1306P3	2842	22.2
1308P3	3020	24.2
1508M3	3734	29.4
1506M3	4004	31.4
1406S3	4019	30.9
1408S3	4140	32.9
1710P7	42995	230.0
<b>Static Pressure = 34</b>		
1206P5	2980	24.8
1506M5	3996	32.6
1306P5	4022	32.6
1308P5	4079	33.0
1406S5	4185	35.0
1508M5	4335	36.1
1406P3	4383	37.0
1408P3	4952	41.2
1408S3	5149	42.3
1406P5	6044	52.8
1508S3	6210	52.8
1310P7	6413	47.7
1506S3	6561	52.7
1408P5	7328	61.0
1506P3	7336	63.6
1410S7	7416	54.5
1506S5	7424	63.2
1508S5	7551	64.3
1508P3	7598	66.7
1306P5	9210	83.9

SIZE	CFM	BHP
<b>Static Pressure = 34</b>		
1308P5	4747	36.7

TBA

SIZE	CFM	BHP
<b>Static Pressure = 39</b>		
1706M5	9798	87.7
1510S7	10234	82.5
1706S3	12976	117.0
1710M7	13486	113.0
1510P7	13522	114.0
1706P3	13793	138.0
1706S5	14673	141.0
1706P5	16688	179.0
1710S7	18690	173.0
1710P7	23292	226.0
<b>Static Pressure = 40</b>		
1406P3	3118	29.5
1408P3	3726	34.8
1508S3	4627	43.3
1406P5	5201	48.1
1506S3	5219	45.3
1410S7	5295	44.0
1408P5	6047	53.8
1508S5	6257	57.3
1506S5	6265	56.7
1506P3	6330	58.0
1508P3	6419	60.0
1706M3	8053	71.8
1506P5	8438	80.0
1410P7	8970	73.8
1508P5	9181	86.8
1706M5	9449	85.8
1510S7	9883	80.8
1706S3	12679	115.0
1710M7	12971	110.0
1510P7	13236	113.0
1706P3	13552	136.0
1706S5	14339	139.0

SIZE	CFM	BHP
<b>Static Pressure = 40</b>		
1706P5	16446	177.0
1710S7	18403	172.0
1710P7	23010	225.0
<b>Static Pressure = 42</b>		
1506S3	4084	37.8
1406P5	4644	44.6
1408P5	5279	48.9
1508S5	5485	52.1
1506S5	5563	52.2
1506P3	5758	54.5
1508P3	5792	56.3
1706M3	7244	67.5
1506P5	8031	77.8
1410P7	8233	70.2
1508P5	8594	83.3
1706M5	8699	81.4
1510S7	9117	77.0
1710M7	11825	103.0
1706S3	12075	113.0
1510P7	12642	111.0
1706P3	13053	134.0
1706S5	13676	135.0
1706P5	15964	174.0
1710S7	17814	170.0
1710P7	22443	224.0
<b>Static Pressure = 44</b>		
1406P5	3776	38.5
1408P5	4433	42.9
1506S5	4678	46.1
1506P3	5104	50.3
1508P3	5186	52.6
1706M3	6319	61.8

SIZE	CFM	BHP
<b>Static Pressure = 44</b>		
1410P7	7282	64.6
1506P5	7594	75.4
1706M5	7859	76.0
1508P5	7960	79.3
1510S7	8196	72.1
1710M7	10406	94.1
1706S3	11448	109.0
1510P7	12000	109.0
1706P3	12532	131.0
1706S5	13005	132.0
1706P5	15482	170.0
1710S7	17199	167.0
1710P7	21866	222.0
<b>Static Pressure = 46</b>		
1506P3	4353	45.0
1508P3	4526	48.6
1706M5	6841	68.8
1510S7	6876	64.3
1506P5	7101	72.4
1508P5	7258	74.5
1710M7	8270	78.4
1706S3	10808	106.0
1510P7	11300	105.0
1706P3	11989	128.0
1706S5	12325	128.0
1706P5	14998	167.0
1710S7	16566	164.0
1710P7	21273	221.0
<b>Static Pressure = 48</b>		
1508P5	6480	68.8
1506P5	6541	68.8
1706S3	10122	102.0

SIZE	CFM	BHP
<b>Static Pressure = 48</b>		
1510P7	10529	101.0
1706P3	11418	124.0
1706S5	11638	124.0
1706P5	14518	164.0
1710S7	15905	160.0
1710P7	20663	219.0
<b>Static Pressure = 50</b>		
1508P5	5649	62.1
1506P5	5835	63.8
1706S3	9357	97.4
1510P7	9603	95.7
1706P3	10815	120.0
1706S5	10915	119.0
1706P5	14039	161.0
1710S7	15200	156.0
1710P7	20048	216.0
<b>Static Pressure = 52</b>		
1506P5	4577	53.7
1510P7	8335	86.1
1706S3	8491	91.6
1706S5	10147	114.0
1706P3	10174	116.0
1706P5	13553	159.0
1710S7	14426	152.0
1710P7	19419	214.0
<b>Static Pressure = 54</b>		
1706S3	7380	83.0
1706S5	9325	108.0
1706P3	9483	111.0
1706P5	13049	155.0
1710S7	13579	146.0
1710P7	18767	211.0

SIZE	CFM	BHP
<b>Static Pressure = 56</b>		
1706S5	8365	99.9
1706P3	8733	105.0
1706P5	12526	152.0
1710S7	12619	140.0
1710P7	18076	208.0
<b>Static Pressure = 58</b>		
1706S5	7220	89.8
1706P3	7894	98.2
1710S7	11430	131.0
1706P5	11992	148.0
1710P7	17332	204.0
<b>Static Pressure = 60</b>		
1706P3	6942	89.9
1710S7	9735	118.0
1706P5	11427	144.0
1710P7	16544	199.0
<b>Static Pressure = 62</b>		
1706P5	10798	140.0
1710P7	15689	193.0
<b>Static Pressure = 64</b>		
1706P5	10083	134.0
1710P7	14721	186.0
<b>Static Pressure = 66</b>		
1706P5	9238	127.0
1710P7	13539	176.0
<b>Static Pressure = 68</b>		
1706P5	7993	115.0
1710P7	11958	160.0



# SELECTION CHARTS

## TBR

SIZE	CFM	BHP
<b>Static Pressure = 6</b>		
R11Q	257	0.57
R11V	294	0.72
R11X	318	0.80
R11W	334	0.89

<b>Static Pressure = 7</b>		
R11Q	219	0.47
R11V	262	0.62
R11X	290	0.72
R11W	309	0.82
R11Y	342	0.96
R12Q	386	1.07
R12V	432	1.30
R12X	464	1.41

<b>Static Pressure = 8</b>		
R11Q	161	0.36
R11V	224	0.53
R11X	254	0.61
R13M	263	0.92
R11W	278	0.72
R11Y	314	0.87
R12Q	349	0.94
R12V	399	1.19
R12X	436	1.34
R12W	458	1.49
R13Q	482	1.56
R12Y	503	1.70
R13V	542	1.93

<b>Static Pressure = 9</b>		
R11V	160	0.39
R11X	200	0.49
R11W	239	0.62
R13M	241	0.84
R13N	277	1.01
R11Y	281	0.76
R12Q	305	0.82
R12V	362	1.06
R12X	403	1.22
R12W	427	1.39
R13Q	444	1.40
R12Y	477	1.63
R13V	510	1.79
R13X	553	2.02
R13W	583	2.28
R14Q	652	2.38
R14V	720	2.81
R14X	770	3.06

<b>Static Pressure = 10</b>		
R11W	179	0.48
R13M	215	0.75
R11Y	235	0.64
R12Q	241	0.66
R13N	254	0.92
R14M	296	1.19
R13P	300	1.23
R12V	319	0.94
R14N	333	1.41
R12X	362	1.08
R12W	390	1.24
R13Q	398	1.25
R12Y	446	1.52
R13V	474	1.63
R13X	519	1.87
R13W	552	2.14
R14Q	611	2.22
R13Y	612	2.50
R14V	686	2.70
R14X	740	2.97
R14W	772	3.26
R15Q	804	3.40
R14Y	842	3.70

<b>Static Pressure = 11</b>		
R13M	183	0.65
R13N	228	0.83
R12V	254	0.76
R14M	270	1.08
R13P	280	1.14
R12X	307	0.92
R14N	310	1.30
R13Q	342	1.08
R12W	348	1.11
R14P	361	1.70
R15M	361	1.68
R15N	405	1.99
R12Y	408	1.36
R13V	432	1.49
R13X	481	1.70
R13W	517	1.96
R14Q	565	2.02
R13Y	581	2.36
R14V	649	2.55

SIZE	CFM	BHP
<b>Static Pressure = 11</b>		
R14X	707	2.87
R14W	741	3.16
R15Q	765	3.21
R14Y	814	3.61
R15V	857	3.90
R15X	921	4.28
R16Q	950	4.52
R15W	961	4.70

<b>Static Pressure = 12</b>
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SIZE	CFM	BHP
<b>Static Pressure = 12</b>		
R13M	131	0.50
R13N	198	0.74
R12X	220	0.67
R14M	240	0.98
R13P	258	1.04
R13Q	263	0.85
R14N	286	1.20
R12W	291	0.95
R14P	340	1.59
R12Y	360	1.20
R13V	379	1.32
R15N	384	1.87
R13X	434	1.53
R16M	477	2.46
R13W	478	1.81
R14Q	514	1.84
R16N	531	2.86
R13Y	547	2.18
R14V	608	2.37
R14X	670	2.72
R14W	706	3.03
R15Q	722	2.99
R14Y	785	3.52
R15V	819	3.73
R15X	888	4.16
R16Q	909	4.29
R15W	929	4.59
R15Y	1016	5.23
R16V	1021	5.25
R16X	1122	6.00

<b>Static Pressure = 13</b>
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SIZE	CFM	BHP
<b>Static Pressure = 13</b>		
R13N	157	0.61
R14M	205	0.86
R12W	206	0.71
R13P	230	0.94
R14N	260	1.11
R12Y	291	0.98
R13V	307	1.09
R15M	310	1.45
R14P	316	1.47
R15N	361	1.75
R13X	373	1.32
R15P	422	2.29
R13W	430	1.64
R14Q	450	1.62
R16M	451	2.31
R13Y	506	2.00
R16N	508	2.74
R14V	561	2.18
R14X	628	2.52
R14W	668	2.85
R15Q	673	2.77
R14Y	753	3.40
R15V	777	3.51
R15X	851	3.99
R16Q	865	4.04
R15W	895	4.44
R16V	982	5.04
R15Y	986	5.12
R16X	1088	5.85
R16W	1109	6.22
R18Q	1435	8.34

<b>Static Pressure = 14</b>
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SIZE	CFM	BHP
<b>Static Pressure = 14</b>		
R13P	197	0.83
R14N	227	0.99
R15M	278	1.32
R13X	285	1.03
R14P	292	1.36
R15N	336	1.64
R14Q	356	1.32
R13W	373	1.44
R15P	401	2.16
R16M	423	2.16
R13Y	456	1.81
R16N	485	2.61
R14V	502	1.97
R16P	562	3.37
R14X	577	2.30
R15Q	616	2.54
R14W	624	2.64
R14Y	716	3.22

SIZE	CFM	BHP
<b>Static Pressure = 14</b>		
R15V	731	3.28
R15X	809	3.77
R16Q	816	3.78
R15W	857	4.25
R16V	940	4.79
R15Y	953	4.98
R16X	1051	5.65
R16W	1075	6.05
R16Y	1181	6.95
R18Q	1392	8.12
R18V	1552	9.75

<b>Static Pressure = 15</b>
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SIZE	CFM	BHP
<b>Static Pressure = 15</b>		
R13P	143	0.66
R14N	176	0.80
R15M	239	1.17
R14P	264	1.25
R13W	299	1.19
R15N	307	1.52
R15P	379	2.04
R13Y	389	1.55
R16M	392	2.02
R14V	424	1.70
R16N	460	2.47
R14X	508	2.04
R16P	539	3.24
R15Q	546	2.27
R14W	571	2.43
R14Y	672	3.00
R15V	680	3.06
R18M	680	4.40
R18X	706	3.03
R15X	761	3.52
R16Q	763	3.53
R18N	778	5.15
R15W	814	4.01
R16Y	918	4.80
R16X	1010	5.41
R16W	1037	5.82
R18Q	1345	7.85
R18V	1512	9.55
R18X	1620	10.5

SIZE	CFM	BHP
<b>Static Pressure = 17</b>		
R16X	915	4.83
R16W	952	5.28
R16Y	1073	6.33
R18Q	1243	7.19
R18V	1425	9.05
R18X	1543	10.1
R18Y	1543	10.1
R18Z	1606	11.0
R18A	1754	12.6
R21Q	1831	13.1

<b>Static Pressure = 18</b>
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SIZE	CFM	BHP
<b>Static Pressure = 18</b>		

## TBR

SIZE	CFM	BHP
<b>Static Pressure = 24</b>		
R21L	687	5.88
R21M	698	5.57
R21N	827	6.84
R21P	976	8.87
R18V	995	6.44
R18X	1153	7.54
R23L	1185	11.6
R23M	1246	11.4
R18W	1263	8.74
R23N	1396	13.4
R21Q	1424	10.1
R18Y	1463	10.6
R23P	1578	16.6
R25M	1661	17.7
R21V	1689	13.0
R21X	1857	14.8
R21W	1962	16.6
R21Y	2178	19.5
R23Q	2477	20.9
R23V	2773	25.3
R23X	2977	28.0
R23W	3088	30.5
R25Q	3344	32.8
R23Y	3359	35.0
R25V	3731	39.8
<b>Static Pressure = 25</b>		
R18N	404	2.96
R18P	589	4.46
R21L	651	5.64
R21M	653	5.28
R21N	792	6.60
R18V	889	5.84
R21P	948	8.62
R18X	1066	7.01
R23L	1152	11.3
R18W	1196	8.33
R23M	1211	11.1
R21Q	1346	9.63
R23N	1363	13.1
R18Y	1407	10.2
R23P	1550	16.3
R21V	1628	12.6
R25M	1628	17.4
R21X	1802	14.3
R21W	1912	16.2
R21Y	2134	19.1
R23Q	2416	20.4
R23V	2720	24.8
R23X	2931	27.7
R23W	3043	30.1
R25Q	3287	32.3
R23Y	3320	34.7
R25V	3681	39.3
R25X	3923	43.5
<b>Static Pressure = 26</b>		
R18P	546	4.20
R21M	602	4.95
R21L	611	5.37
R18V	748	5.00
R21N	755	6.35
R21P	918	8.37
R18X	959	6.36
R23L	1119	11.0
R18W	1121	7.87
R23M	1174	10.8
R21Q	1260	9.07
R23N	1330	12.8
R18Y	1344	9.75
R23P	1522	16.1
R25L	1544	17.7
R21V	1563	12.2
R25M	1594	17.1
R21X	1742	13.9
R25N	1795	20.2
R21W	1859	15.7
R21Y	2087	18.7
R23Q	2351	19.8
R23V	2665	24.4
R23X	2883	27.3
R23W	2998	29.8
R25Q	3228	31.8
R23Y	3279	34.3
R25V	3630	38.8
R25X	3877	43.0
R25W	4028	47.0
R27Q	4282	49.1
<b>Static Pressure = 27</b>		
R18P	495	3.89
R21M	540	4.55
R21L	567	5.08
R21N	714	6.06
R18X	822	5.52

SIZE	CFM	BHP
<b>Static Pressure = 27</b>		
R21P	887	8.12
R18W	1035	7.35
R23L	1083	10.7
R23M	1135	10.5
R21Q	1160	8.43
R18Y	1271	9.25
R21X	1677	13.4
R25N	1763	19.9
R21V	1943	11.7
R25L	1513	17.4
R25M	1560	16.8
R21X	1436	11.6
R25M	1449	15.7
R21W	1610	13.8
R25N	1665	18.9
R21Y	1871	16.6
R25P	1901	23.9
R23Q	2049	17.4
R27L	2110	27.5
R27M	2210	27.2
R23V	2419	22.2
R27N	2472	31.9
R23X	2669	25.3
R23W	2798	28.0
R25Q	2971	29.3
R23Y	3107	32.7
R25V	3410	36.7
R25X	3685	41.0
R25W	3843	45.0
R27O	4046	46.5
R25Y	4192	51.9
R27V	4520	56.4
R27X	4833	62.7
R29Q	5679	74.5
<b>Static Pressure = 28</b>		
R18P	431	3.52
R21M	455	4.00
R21L	516	4.75
R21N	670	5.76
R21P	854	7.86
R18W	932	6.73
R21Q	1039	7.64
R23L	1046	10.4
R23M	1093	10.2
R18Y	1186	8.68
R23N	1260	12.2
R21V	1416	11.1
R23P	1462	15.6
R25L	1480	17.1
R25M	1524	16.4
R21X	1604	12.8
R25N	1731	19.6
R21W	1744	14.8
R25P	1959	24.5
R21Y	1986	17.7
R23Q	2211	18.6
R27M	2285	28.0
R23V	2547	23.3
R23X	2782	26.4
R23W	2902	28.9
R25Q	3104	30.6
R23Y	3196	33.5
R25V	3524	37.8
R25X	3784	42.1
R25W	3937	46.0
R27Q	4167	47.8
R25Y	4275	52.9
R27V	4625	57.7
<b>Static Pressure = 29</b>		
R21L	460	4.38
R21N	619	5.41
R18W	812	5.99
R21P	818	7.58
R21Q	868	6.53
R23L	1007	10.1
R23M	1048	9.82
R18Y	1085	7.99
R23N	1223	11.9
R21V	1328	10.5
R23P	1431	15.3
R25L	1447	16.7
R25M	1487	16.0
R21X	1524	12.2
R21W	1679	14.3
R25N	1699	19.3
R23Q	1930	17.2
R25P	1930	24.2
R23V	2133	18.0
R27L	2143	27.9
R27M	2248	27.6
R23V	2485	22.8
R27N	2507	32.2
R23X	2727	25.9
R23W	2851	28.4
R25Q	3039	29.9
R23Y	3152	33.1
R25V	3468	37.2
R25X	3735	41.6
R25W	3890	45.5
R27Q	4107	47.2
R25Y	4234	52.4
R27V	4573	57.0
R27X	4880	63.3

SIZE	CFM	BHP
<b>Static Pressure = 30</b>		
R21L	369	3.83
R21N	556	4.96
R21P	780	7.29
R18Y	951	7.08
R23L	966	9.76
R23M	1000	9.45
R23N	1185	11.6
R21V	1226	9.83
R23P	1399	15.0
R25L	1412	16.4
R21X	1436	11.6
R25M	1449	15.7
R21W	1610	13.8
R25N	1665	18.9
R21Y	1871	16.6
R25P	1901	23.9
R23Q	2049	17.4
R27L	2110	27.5
R27M	2210	27.2
R23V	2419	22.2
R27N	2472	31.9
R23X	2669	25.3
R23W	2798	28.0
R25Q	2971	29.3
R23Y	3107	32.7
R25V	3410	36.7
R25X	3685	41.0
R25W	3843	45.0
R27O	4046	46.5
R25Y	4192	51.9
R27V	4520	56.4
R27X	4833	62.7
R29Q	5679	74.5
<b>Static Pressure = 31</b>		
R21N	461	4.29
R21P	739	6.98
R18Y	772	5.84
R23L	921	9.41
R23M	947	9.05
R21V	1104	8.97
R23N	1144	11.2
R21X	1336	10.8
R23P	1365	14.6
R25L	1376	16.0
R25M	1409	15.3
R21W	1535	13.2
R25N	1631	18.6
R21Y	1805	16.1
R25P	1871	23.6
R23Q	1957	16.7
R27L	2075	27.2
R27M	2171	26.8
R23V	2350	21.6
R27N	2437	31.5
R23X	2607	24.8
R23W	2743	27.4
R25Q	2901	28.6
R23Y	3061	32.3
R25V	3351	36.1
R25W	3633	40.5
R27O	3793	44.5
R27Q	3983	45.8
R25Y	4150	51.5
R27V	4465	55.8
R27X	4785	62.1
R27W	4983	68.2
R29Q	5618	73.7
<b>Static Pressure = 32</b>		
R21P	693	6.64
R23L	874	9.04
R23M	889	8.60
R21V	941	7.77
R23N	1102	10.9
R21X	1219	9.95
R23P	1330	14.3
R25L	1339	15.7
R25M	1368	14.9
R21W	1454	12.6
R25N	1596	18.2
R21Y	1732	15.5
R25P	1841	23.2
R23Q	1856	15.9
R27L	2039	26.8
R27M	2131	26.4
R23V	2276	21.0
R27N	2401	31.1
R23X	2541	24.1
R23W	2684	26.9
R27P	2710	38.8
R27M	2761	38.9
R25Q	2827	27.9
R23Y	3012	31.8
R25V	3290	35.4

SIZE	CFM	BHP
<b>Static Pressure = 32</b>		
R25X	3578	39.9
R25W	3743	44.0
R27Q	3918	45.1
R25Y	4106	51.0
R27V	4409	55.2
R27X	4736	61.5
R27W	4936	67.6
R29Q	5555	72.9
R29V	6171	88.2
<b>Static Pressure = 33</b>		
R21P	640	6.26
R23M	822	8.09
R23L	823	8.64
R23N	1057	10.5
R21X	1083	8.91
R23P	1294	13.9
R25L	1300	15.3
R25M	1324	14.5
R21W	1615	13.7
R27P	2615	37.7
R29M	2646	37.5
R23Y	2850	30.2
R29N	2966	44.2
R25V	3091	33.4
R25X	3401	38.0
R25W	3580	42.2
R27Q	3711	42.8
R25Y	3968	49.4
R27V	4233	53.1
R27X	4579	59.5
R27W	4788	65.7
R27Y	5228	75.9
R29Q	5361	70.4
R29V	6000	85.8
R29X	6392	95.3
R29W	6625	104.0
R31Q	6816	102.0
<b>Static Pressure = 36</b>		
R23L	628	7.12
R23N	890	9.18
R21W	1018	9.33
R25L	1172	14.1
R23P	1175	12.8
R25M	1175	13.2
R23Q	1236	1

# SELECTION CHARTS

## TBR

SIZE	CFM	BHP
<b>Static Pressure = 37</b>		
R25Y	3868	48.2
R27V	4107	51.7
R27X	4466	58.1
R27W	4682	64.3
R27Y	5136	74.7
R29Q	5223	68.6
R29V	5882	84.1
R29X	6288	93.8
R29W	6525	102.0
R31Q	6686	99.8
R31V	7405	120.0
<b>Static Pressure = 38</b>		
R23N	714	7.71
R21Y	1018	9.51
R25M	1053	12.1
R25L	1076	13.3
R23P	1083	12.0
R25N	1353	15.9
R25P	1640	20.9
R23V	1659	16.0
R27L	1806	24.3
R27M	1871	23.6
R23X	2012	19.4
R27N	2172	28.5
R23W	2251	22.9
R25Q	2272	22.9
R29L	2437	37.1
R27P	2515	36.5
R29M	2525	36.1
R23Y	2656	28.1
R29N	2856	42.8
R25V	2864	31.2
R25X	3196	35.8
R31M	3199	51.5
R29P	3224	53.5
R25W	3398	40.2
R27Q	3481	40.3
R31N	3559	60.1
R25Y	3815	47.6
R27V	4041	50.9
R27X	4406	57.4
R27W	4627	63.6
R27Y	5089	74.0
R29Q	5152	67.8
R29V	5821	83.3
R29X	6235	93.0
R29W	6474	102.0
R31Q	6619	98.8
R29Y	7023	117.0
R31V	7347	119.0
R31X	7813	133.0
R33Q	8215	138.0
<b>Static Pressure = 39</b>		
R25M	977	11.4
R25L	1024	12.8
R23P	1031	11.5
R25N	1304	15.5
R23V	1485	14.5
R25P	1602	20.5
R27L	1763	23.8
R27M	1822	23.0
R23X	1884	18.3
R27N	2130	28.0
R25Q	2149	21.8
R23W	2157	22.1
R29L	2398	36.7
R27P	2480	36.0
R29M	2483	35.6
R23Y	2582	27.4
R25V	2780	30.4
R29N	2818	42.3
R31L	3044	52.2
R25X	3121	35.0
R31M	3161	51.0
R29P	3192	53.0
R25W	3332	39.5
R27Q	3398	39.5
R31N	3524	59.6
R25Y	3759	46.9
R27V	3973	50.1
R27X	4344	56.6
R27W	4571	62.9
R27Y	5040	73.3
R29Q	5078	66.8
R29V	5759	82.5
R29X	6181	92.2
R29W	6422	101.0
R31Q	6551	97.8
R29Y	6977	116.0
R31V	7288	118.0
R31X	7761	132.0
R33Q	8150	137.0

SIZE	CFM	BHP
<b>Static Pressure = 40</b>		
R25M	885	10.6
R25L	967	12.3
R23P	971	11.0
R23V	1210	12.1
R25N	1252	15.0
R25P	1564	20.1
R27L	1717	23.4
R23X	1730	16.9
R27M	1772	22.5
R25Q	2009	20.6
R23W	2055	21.2
R27N	2088	27.6
R29L	2358	36.2
R29M	2439	35.1
R27P	2444	35.6
R23Y	2502	26.6
R25V	2689	29.6
R29N	2780	41.8
R31L	3008	51.7
R25X	3041	34.1
R31M	3121	50.5
R29P	3160	52.5
R25W	3264	38.7
R27Q	3310	38.6
R31N	3488	59.1
R25Y	3701	46.2
R27V	3903	49.3
R27X	4279	55.8
R27W	4513	62.2
R33M	4576	8.2
R27Y	4990	72.7
R29Q	5003	65.9
R29V	5696	81.6
R29X	6126	91.4
R29W	6369	99.9
R31Q	6482	96.8
R29Y	6931	115.0
R31V	7229	117.0
R31X	7709	131.0
R31W	8012	143.0
R33Q	8084	136.0
<b>Static Pressure = 42</b>		
R23P	822	9.73
R25L	833	11.0
R25N	1133	13.8
R23X	1293	12.9
R25P	1481	19.2
R27L	1621	22.4
R25Q	1638	17.2
R27M	1663	21.4
R23W	1819	19.1
R27N	1999	26.6
R29L	2277	35.2
R23Y	2310	24.7
R29M	2349	34.0
R27P	2371	34.7
R25V	2488	27.7
R29N	2702	40.9
R25X	2862	32.3
R31L	2934	50.8
R31M	3040	49.5
R29P	3093	51.5
R25W	3117	37.1
R27Q	3120	36.6
R31N	3414	58.1
R25Y	3576	44.7
R27V	3755	47.7
R31P	3851	72.6
R27X	4142	54.1
R27W	4391	60.6
R33M	4486	80.6
R29Q	4846	64.0
R29V	4885	71.2
R29X	5564	79.8
R29Y	6013	89.7
R29W	6261	98.2
R31Q	6339	94.8
R29Y	6836	114.0
R31V	7107	115.0
R31X	7602	129.0
R31W	7908	141.0
R33Q	7950	134.0
R33V	8831	162.0
<b>Static Pressure = 44</b>		
R25N	976	12.3
R25P	1389	18.2
R23W	1514	16.4
R27L	1516	21.3
R27M	1538	20.1
R27N	1903	25.6
R23Y	2067	22.3
R29L	2191	34.2
R25V	2246	25.4

SIZE	CFM	BHP
<b>Static Pressure = 44</b>		
R29M	2252	32.8
R27P	2294	33.7
R29N	2621	39.9
R25X	2651	30.1
R31L	2857	49.8
R27Q	2906	34.4
R25W	2950	35.4
R31M	2956	48.4
R29P	3023	50.5
R31N	3339	57.1
R25Y	3437	43.0
R27V	3593	45.9
R31P	3786	71.5
R27X	3995	52.3
R33L	4168	79.5
R27W	4261	59.0
R33M	4396	79.1
R29Q	4678	62.0
R27Y	4773	69.7
R33N	4916	93.7
R29V	5425	78.0
R29X	5894	88.0
R29W	6149	96.6
R31Q	6190	92.7
R29Y	6739	112.0
R31V	6980	113.0
R31X	7492	127.0
R31W	7802	139.0
R33Q	7810	131.0
R31Y	8473	161.0
R33V	8710	160.0
R33X	9284	178.0
<b>Static Pressure = 46</b>		
R25P	1283	17.1
R27M	1389	18.6
R27L	1399	20.0
R23Y	1716	18.8
R27N	1798	24.5
R25V	1923	22.2
R29L	2100	33.1
R29M	2149	31.6
R27P	2212	32.6
R25X	2399	27.5
R29N	2536	38.8
R27Q	2655	31.8
R25W	2761	33.5
R31L	2776	48.8
R31M	2868	47.3
R29P	2951	49.5
R31N	3261	56.1
R25Y	3285	41.2
R27V	3416	44.0
R31P	3719	70.4
R27X	3836	50.4
R33L	4086	78.1
R27W	4123	57.3
R33M	4303	77.6
R29Q	4497	59.8
R27Y	4654	68.0
R33N	4831	92.1
R29V	5280	76.2
R29X	5768	86.2
R29W	6032	94.8
R27Q	6032	94.8
R29Y	6639	111.0
R31V	6847	111.0
R29X	6963	110.0
R31Q	6034	90.6
R29Y	6639	111.0
R27V	7378	125.0
R33Q	7665	129.0
R31W	7693	137.0
R31Y	8377	159.0
R33V	8586	157.0
R33X	9176	176.0
R33W	9504	191.0
<b>Static Pressure = 48</b>		
R25P	1157	15.8
R27M	1185	16.5
R27L	1267	18.6
R27N	1682	23.2
R29L	2003	32.0
R29M	2037	30.3
R25X	2067	24.0
R27P	2125	31.5
R27Q	2341	28.5
R29N	2446	37.7
R25W	2547	31.3
R31L	2693	47.7
R31M	2775	46.1
R29P	2875	48.4
R25Y	3107	39.2
R31N	3180	55.0
R27V	3218	41.8
R31P	3650	69.4

SIZE	CFM	BHP
<b>Static Pressure = 48</b>		
R27X	3656	48.2
R27W	3974	55.5
R33L	4002	76.7
R33M	4208	76.0
R29Q	4300	57.5
R27Y	4525	66.2
R33N	4744	90.5
R29V	5125	74.2
R33P	5308	112.0
R29X	5633	84.3
R31Q	5870	88.4
R29W	5908	93.0
R29Y	6535	109.0
R31V	6709	109.0
R31X	7260	123.0
R33Q	7516	127.0
R31W	7580	135.0
R31Y	8279	157.0
R33V	8458	155.0
R33X	9065	174.0
R33W	9397	189.0
R33Y	10191	218.0
<b>Static Pressure = 50</b>		
R25P	994	14.2
R27L	1107	16.9
R27N	1549	21.8
R27Q	1858	23.4
R29L	1900	30.7
R29M	1911	28.8
R29V	2032	30.4
R25W	2293	28.7
R29N	2350	36.5
R31L	2605	46.5
R31M	2677	44.8
R29P	2797	47.3
R25Y	2895	36.7
R27V	2994	39.3
R31N	3096	53.9
R27X	3453	45.8
R31P	3578	68.3
R27W	3809	53.5
R33L	3915	75.3
R29Q	4082	54.9
R33M	4110	74.4
R27Y	4387	64.3
R33N	4656	88.8
R29V	4961	72.1
R33P	5231	111.0
R29X	5487	82.2
R31Q	5697	86.1

## TBR

SIZE	CFM	BHP
<b>Static Pressure = 58</b>		
R29W	5160	82.5
R31V	5910	98.3
R29Y	5920	99.2
R31X	6555	112.0
R33Q	6663	114.0
R31W	6936	125.0
R31Y	7737	147.0
R33V	7744	144.0
R33X	8439	162.0
R33W	8809	178.0
R33Y	9683	207.0
<b>Static Pressure = 60</b>		
R29L	1121	21.2
R27P	1336	22.0
R29N	1703	28.4
R31M	2049	36.4
R31L	2084	39.5
R29P	2331	40.8
R31N	2615	47.3
R27W	2670	39.8
R31P	3182	62.1
R27Y	3416	51.2
R33L	3428	68.0
R33M	3564	66.3
R29V	3876	58.6
R33N	4179	80.7
R29X	4538	69.2
R31Q	4602	71.6
R33P	4832	103.0
R29W	4976	80.0
R31V	5721	95.6
R29Y	5768	96.9
R31X	6385	109.0
R33Q	6464	111.0
R31W	6786	123.0
R33V	7584	141.0
R31Y	7613	145.0
R33X	8296	159.0
R33W	8677	175.0
R33Y	9572	205.0
<b>Static Pressure = 62</b>		
R29N	1466	25.2
R31M	1862	33.8
R31L	1956	37.7
R29P	2216	39.2
R27W	2344	35.6
R31N	2498	45.7
R31P	3092	60.7
R27Y	3118	47.1
R33L	3318	66.4
R33M	3437	64.4
R29V	3555	54.4
R33N	4074	79.1
R29X	4270	65.6
R31Q	4308	67.6
R33P	4748	101.0
R29W	4772	77.2
R31V	5517	92.8
R29Y	5604	94.3
R31X	6203	107.0
R33Q	6252	108.0
R31W	6628	120.0

SIZE	CFM	BHP
<b>Static Pressure = 62</b>		
R33V	7417	139.0
R31Y	7482	143.0
R33X	8144	157.0
R33W	8540	173.0
R33Y	9456	202.0
<b>Static Pressure = 64</b>		
R31M	1613	30.4
R31L	1811	35.7
R29P	2088	37.4
R31N	2370	43.9
R27Y	2749	42.0
R31P	2998	59.2
R29V	3142	49.0
R33L	3200	64.6
R33M	3303	62.4
R31Q	3961	62.8
R29X	3963	61.3
R33N	3966	77.5
R29W	4545	74.1
R33P	4660	99.7
R31V	5297	89.7
R29Y	5426	91.6
R31X	6009	104.0
R33Q	6024	105.0
R31W	6462	118.0
R33V	7242	136.0
R31Y	7343	140.0
R33X	7985	154.0
R33W	8396	170.0
R33Y	9336	200.0
<b>Static Pressure = 66</b>		
R31L	1647	33.4
R29P	1942	35.4
R27Y	2160	34.1
R31N	2226	41.8
R31P	2898	57.7
R33L	3075	62.8
R33M	3158	60.3
R31Q	3530	56.8
R29X	3581	56.0
R33N	3852	75.8
R29W	4295	70.7
R33P	4569	98.0
R31V	5055	86.3
R29Y	5231	88.6
R33Q	5778	101.0
R31X	5794	100.0
R31W	6286	115.0
R33V	7057	133.0
R31Y	7196	138.0
R33X	7816	151.0
R33W	8246	168.0
R33Y	9211	198.0
<b>Static Pressure = 68</b>		
R31L	1432	30.4
R29P	1766	33.0
R31N	2055	39.2
R31P	2791	56.0
R33L	2942	60.8
R33M	2998	57.9
R29X	3102	49.1

SIZE	CFM	BHP
<b>Static Pressure = 68</b>		
R33N	3733	74.0
R29W	4017	66.9
R33P	4474	96.3
R31V	4785	82.4
R29Y	5006	85.2
R33Q	5510	97.2
R31X	5555	96.7
R31W	6097	112.0
R33V	6861	130.0
R31Y	7038	135.0
R33X	7639	149.0
R33W	8089	165.0
R33Y	9079	195.0
<b>Static Pressure = 70</b>		
R29P	1539	30.0
R31N	1837	35.9
R31P	2676	54.2
R33L	2799	58.6
R33M	2819	55.2
R33N	3607	72.0
R29W	3692	62.4
R33P	4376	94.5
R31V	4474	77.9
R29Y	4745	81.2
R33Q	5212	92.7
R31X	5288	92.5
R31W	5891	109.0
R33V	6651	127.0
R31Y	6871	132.0
R33X	7453	145.0
R33W	7925	163.0
R33Y	8940	192.0
<b>Static Pressure = 72</b>		
R31P	2550	52.2
R33M	2611	52.0
R33L	2645	56.2
R29W	3307	56.9
R33N	3474	70.0
R31V	4100	72.3
R33P	4274	92.7
R29Y	4448	76.6
R33Q	4872	87.4
R31X	4995	87.9
R31W	5666	105.0
R33V	6426	124.0
R31Y	6692	129.0
R33X	7253	142.0
R33W	7754	160.0
R33Y	8794	190.0
<b>Static Pressure = 74</b>		
R33M	2345	47.9
R31P	2411	50.1
R33L	2476	53.6
R29W	2850	50.2
R33N	3332	67.8
R31V	3636	65.0
R29Y	4087	70.9
R33P	4168	90.9
R33Q	4469	81.2
R31X	4653	82.5
R31W	5424	102.0
<b>Static Pressure = 76</b>		
R33V	6185	120.0
R31Y	6499	126.0
R33X	7036	138.0
R33W	7575	157.0
R33Y	8641	187.0
<b>Static Pressure = 78</b>		
R33M	1902	40.9
R31P	2252	47.6
R33L	2283	50.5
R31Y	3175	65.4
R29Y	3612	63.5
R33Q	3975	73.1
R33P	4057	88.9
R31X	4240	75.9
R31W	5164	97.6
R33V	5923	115.0
R31Y	6284	122.0
R33X	6799	134.0
R33W	7384	153.0
R33Y	8480	184.0
<b>Static Pressure = 80</b>		
R33L	2057	46.9
R31P	2067	44.8
R29Y	2950	52.8
R33N	3000	62.5
R31X	3756	67.9
R33P	3939	86.9
R31W	4875	93.0
R33V	5632	111.0
R31Y	6042	118.0
R33X	6541	130.0
R33W	7179	150.0
R33Y	8310	181.0
<b>Static Pressure = 82</b>		
R33L	1744	42.0
R31P	1836	41.3
R33N	2800	59.3
R33P	3814	84.6
R31W	4548	87.8
R33V	5303	105.0
R31Y	5772	113.0
R33X	6264	125.0
R33W	6961	146.0
R33Y	8131	177.0
<b>Static Pressure = 84</b>		
R33N	2550	55.1
R33P	3681	82.3
R31W	4170	81.7
R33V	4917	98.7
R31Y	5475	108.0
R33X	5959	119.0
R33W	6727	142.0
R33Y	7942	174.0
<b>Static Pressure = 86</b>		
R33N	2162	48.3
R33P	3538	79.7
R31W	3766	74.9
R33V	4462	90.5
R31Y	5128	102.0
R33X	5611	113.0
R33W	6481	138.0
R33Y	7735	170.0

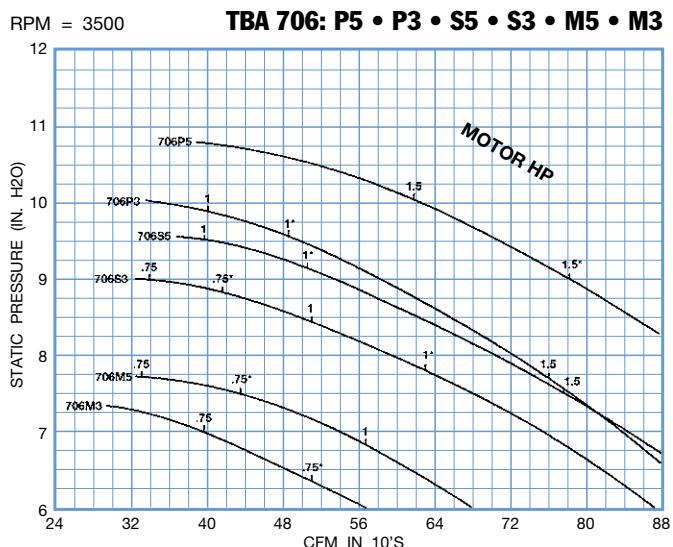
SIZE	CFM	BHP
<b>Static Pressure = 86</b>		
R33P	3381	76.9
R33V	3696	77.2
R31Y	4703	93.9
R33X	5209	106.0
R33W	6217	133.0
R33Y	7508	165.0
<b>Static Pressure = 88</b>		
R33P	3206	73.8
R31Y	4188	84.5
R33X	4754	97.4
R33	5929	128.0
R33Y	7261	160.0
<b>Static Pressure = 90</b>		
R33P	3006	70.3
R33X	4205	87.0
R33W	5610	122.0
R33Y	6992	155.0
<b>Static Pressure = 92</b>		
R33P	2765	66.1
R33W	5253	116.0
R33Y	6703	149.0
<b>Static Pressure = 94</b>		
R33P	2452	60.7
R33W	4871	109.0
R33Y	6379	143.0
<b>Static Pressure = 96</b>		
R33W	4445	101.0
R33Y	6002	135.0
<b>Static Pressure = 98</b>		
R33Y	5561	126.0
<b>Static Pressure = 100</b>		
R33Y	5062	116.0
<b>Static Pressure = 102</b>		
R33Y	4368	102.0



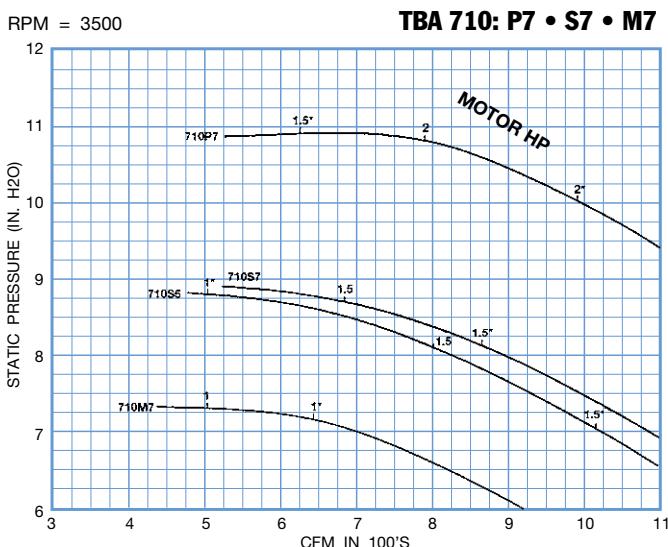
## PERFORMANCE CURVES

### TBA

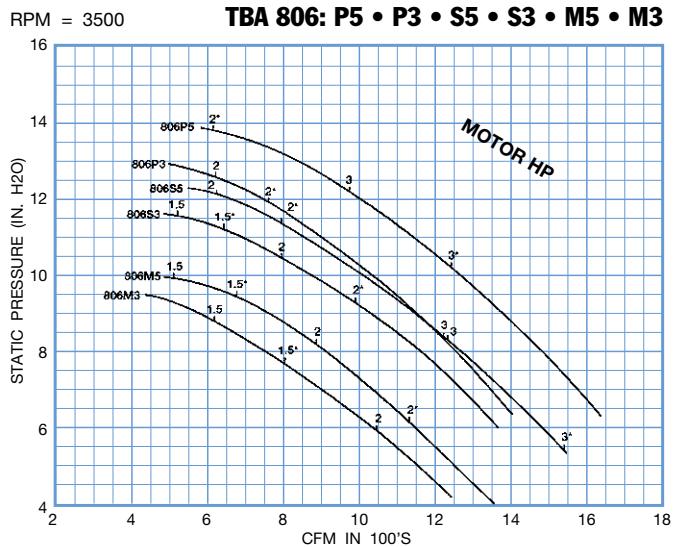
RPM = 3500



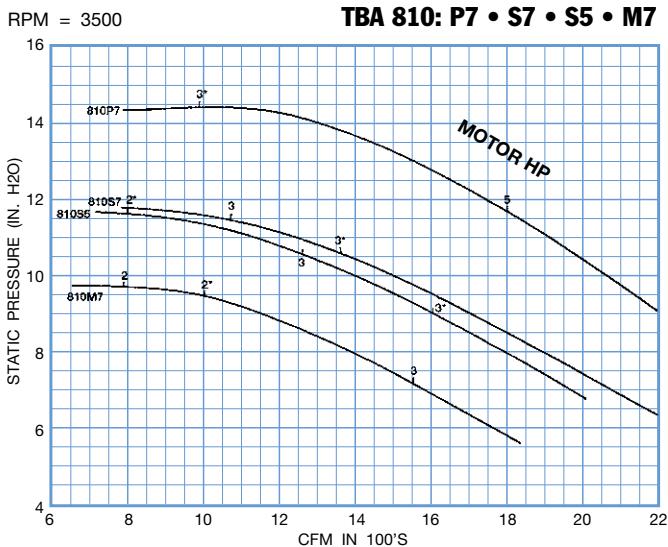
RPM = 3500



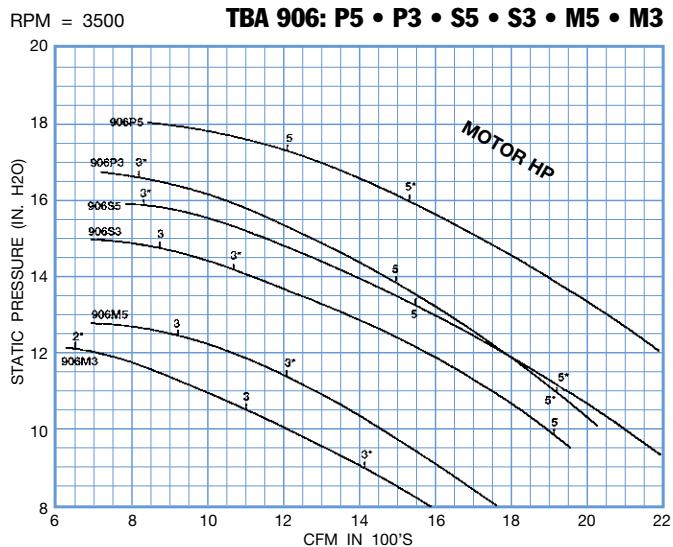
RPM = 3500



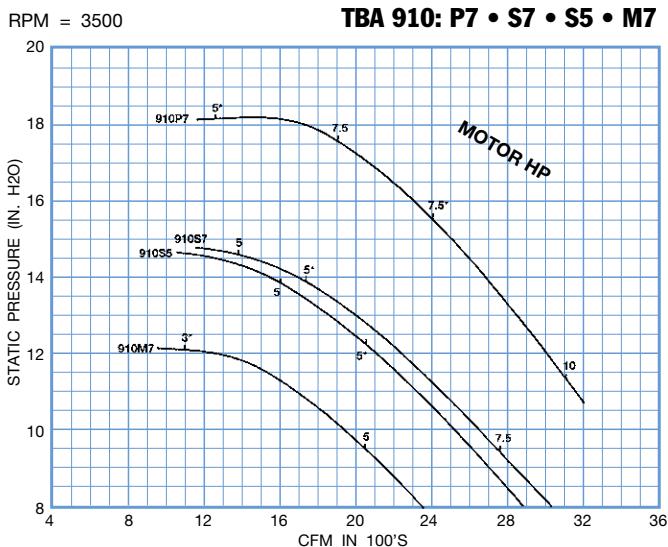
RPM = 3500



RPM = 3500



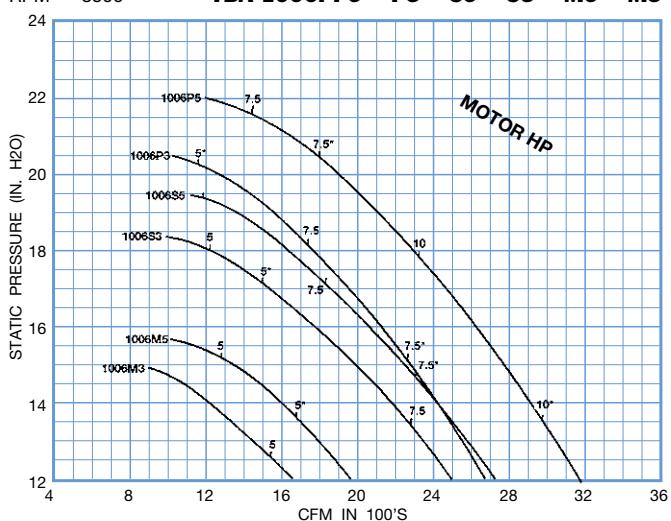
RPM = 3500



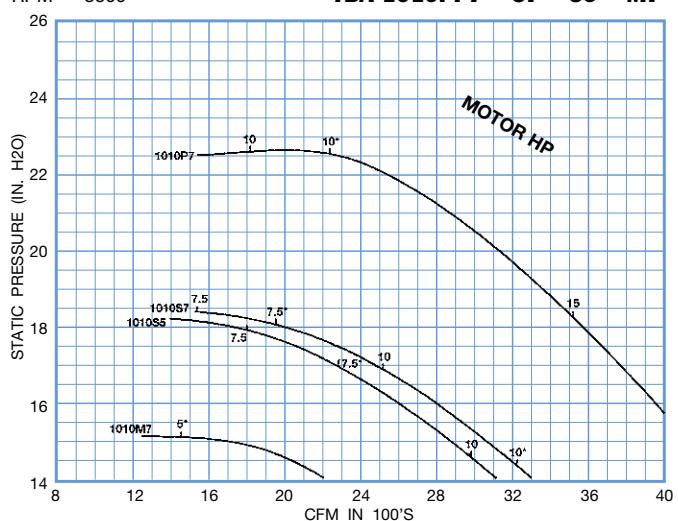
\*INDICATES MOTOR OPERATION AT 1.15 SF

**TBA**

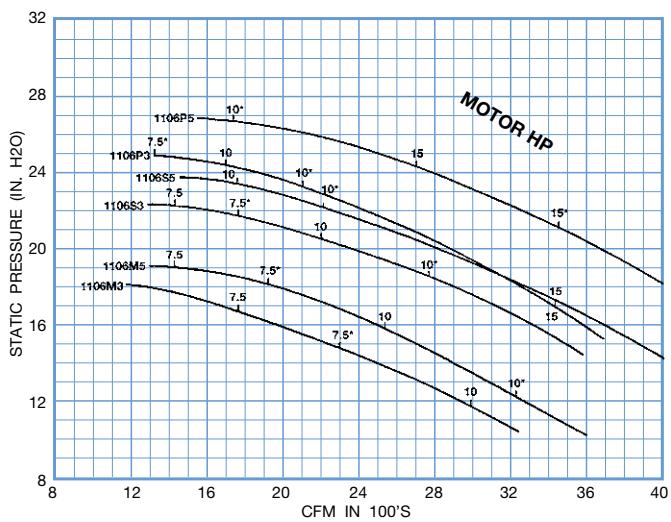
RPM = 3500

**TBA 1006: P5 • P3 • S5 • S3 • M5 • M3**

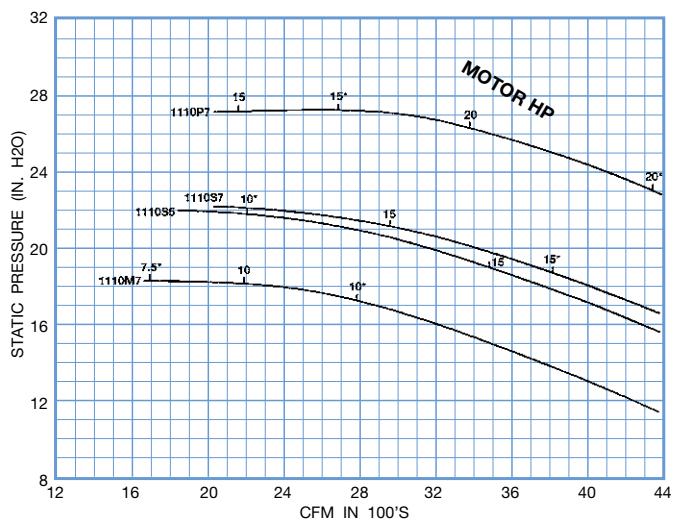
RPM = 3500

**TBA 1010: P7 • S7 • S5 • M7**

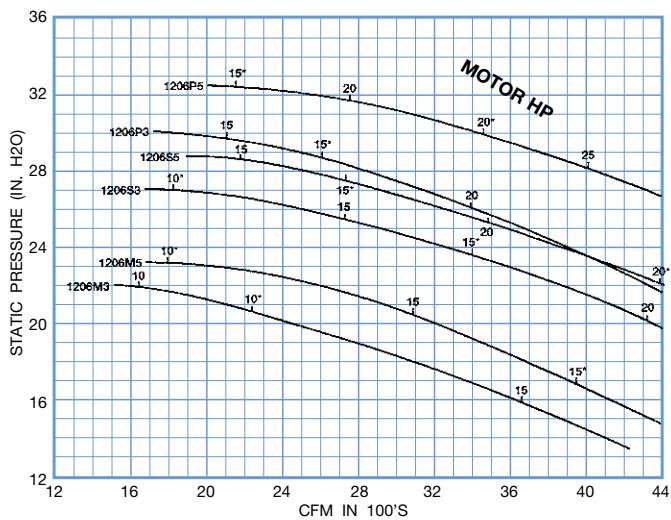
RPM = 3500

**TBA 1106: P5 • P3 • S5 • S3 • M5 • M3**

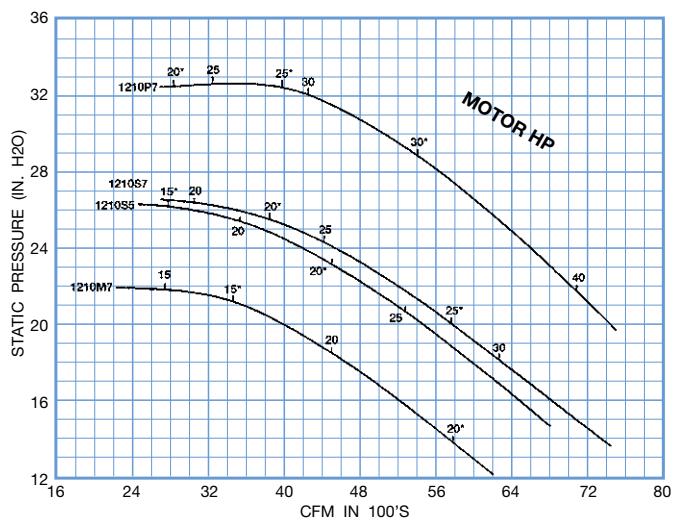
RPM = 3500

**TBA 1110: P7 • S7 • S5 • M7**

RPM = 3500

**TBA 1206: P5 • P3 • S5 • S3 • M5 • M3**

RPM = 3500

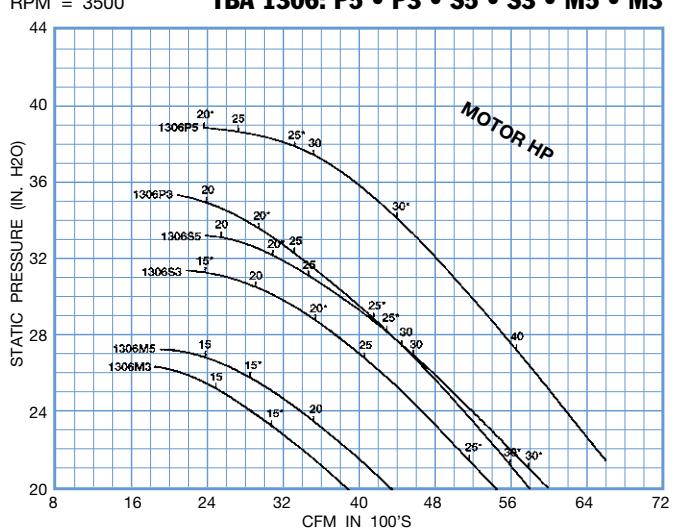
**TBA 1210: P7 • S7 • S5 • M7**

\*INDICATES MOTOR OPERATION AT 1.15 SF

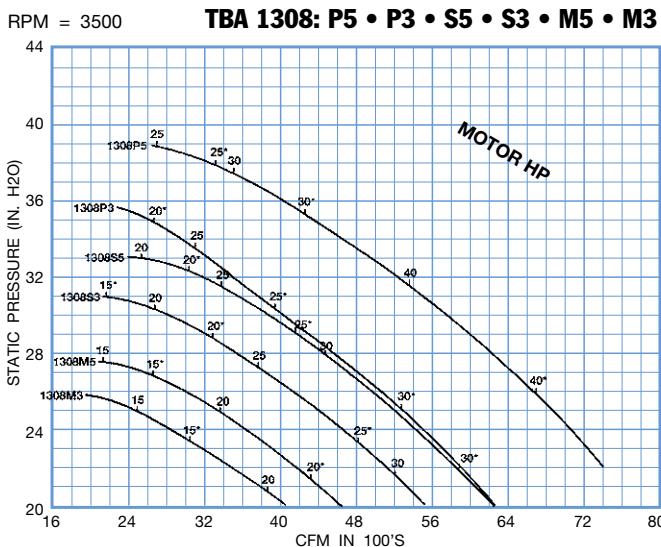
## PERFORMANCE CURVES

### TBA

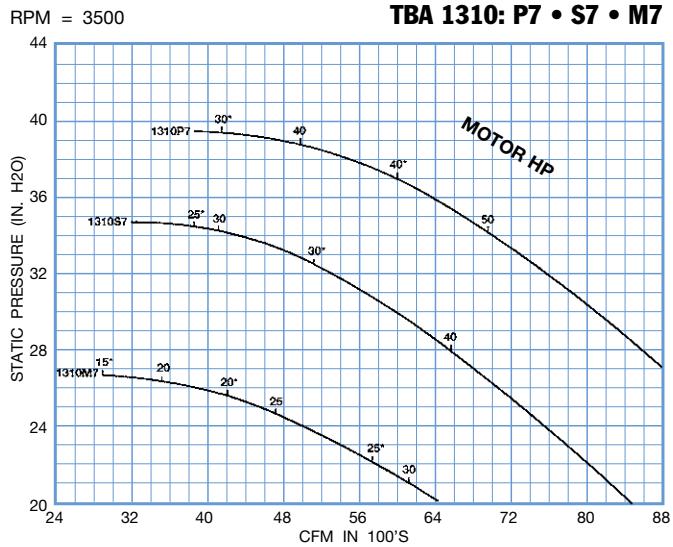
RPM = 3500



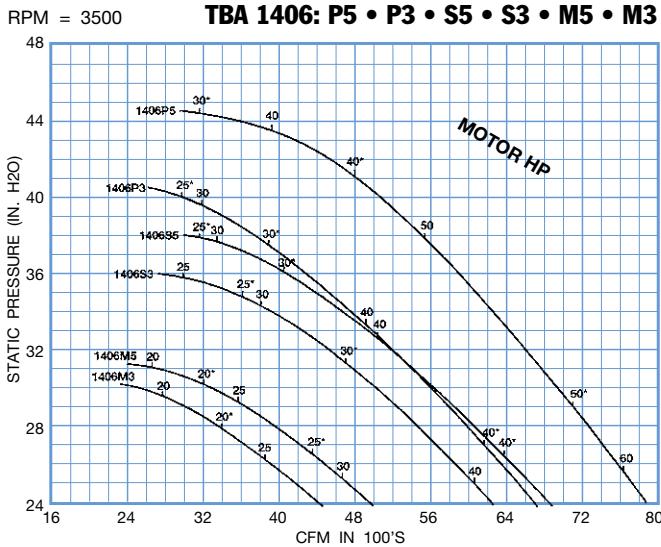
RPM = 3500



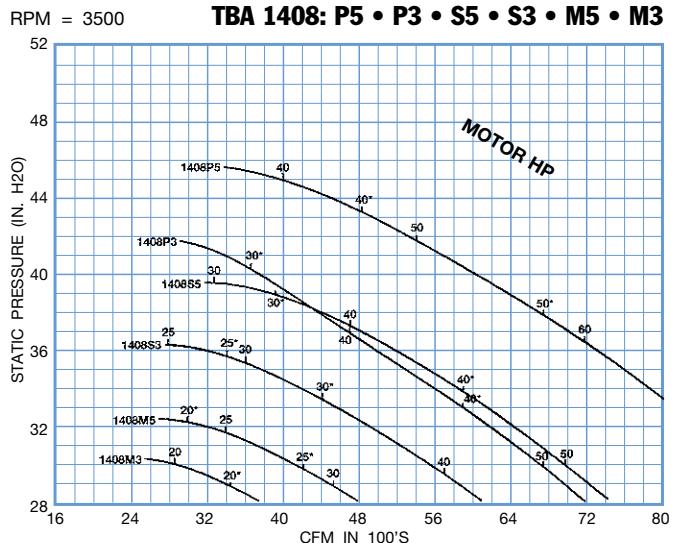
RPM = 3500



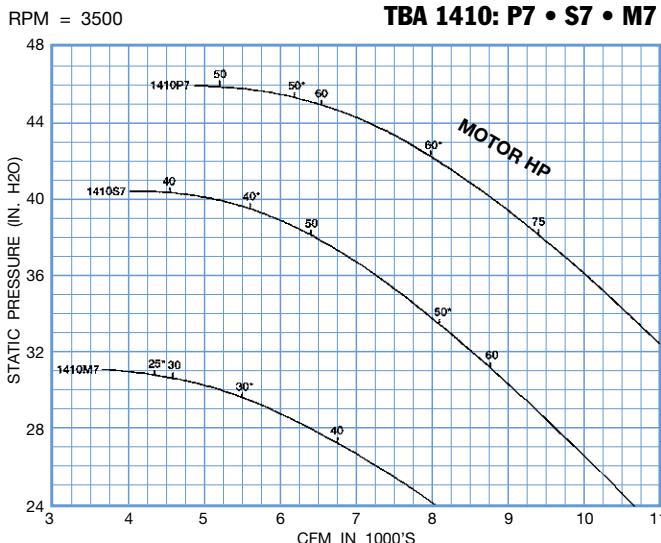
RPM = 3500



RPM = 3500



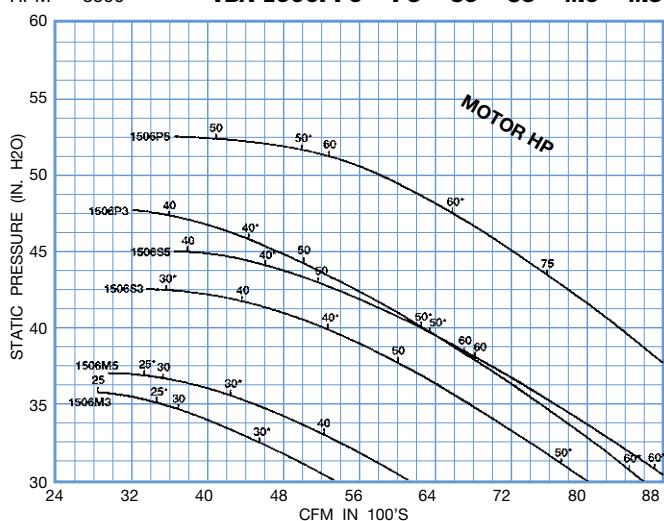
RPM = 3500



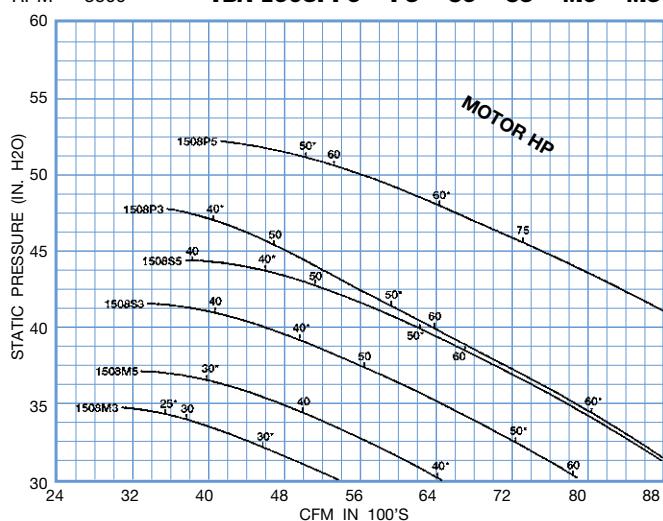
\*INDICATES MOTOR OPERATION AT 1.15 SF

**TBA**

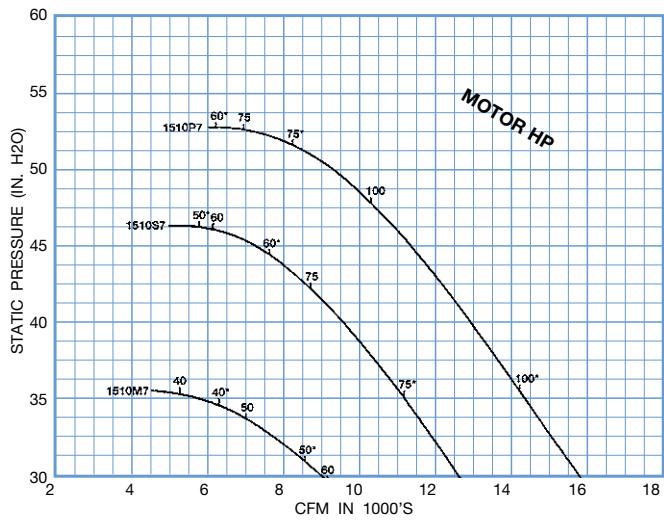
RPM = 3500

**TBA 1506: P5 • P3 • S5 • S3 • M5 • M3**

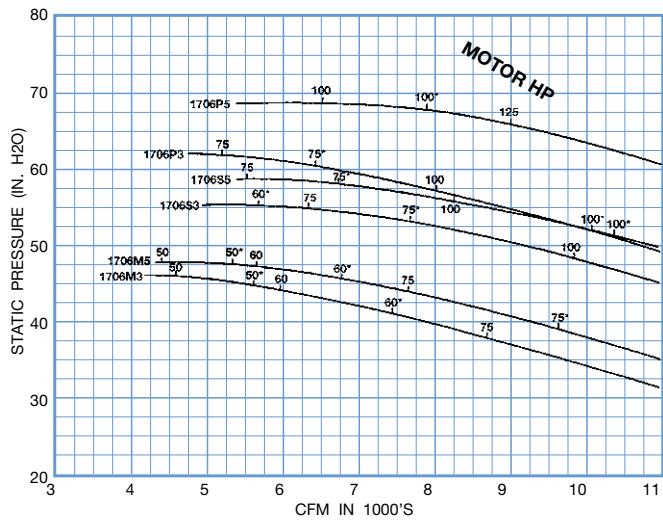
RPM = 3500

**TBA 1508: P5 • P3 • S5 • S3 • M5 • M3**

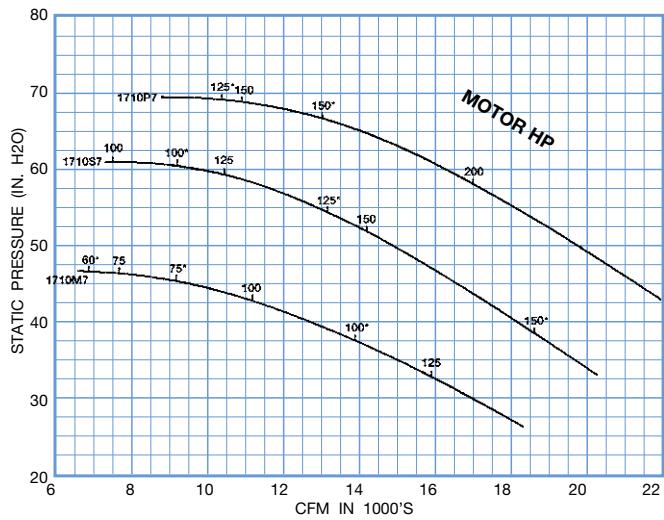
RPM = 3500

**TBA 1510: P7 • S7 • M7**

RPM = 3500

**TBA 1706: P5 • P3 • S5 • S3 • M5 • M3**

RPM = 3500

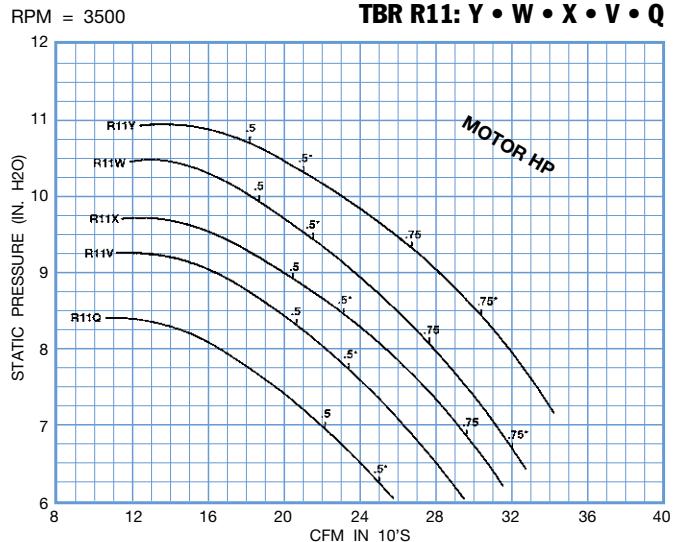
**TBA 1710: P7 • S7 • M7**

\*INDICATES MOTOR OPERATION AT 1.15 SF

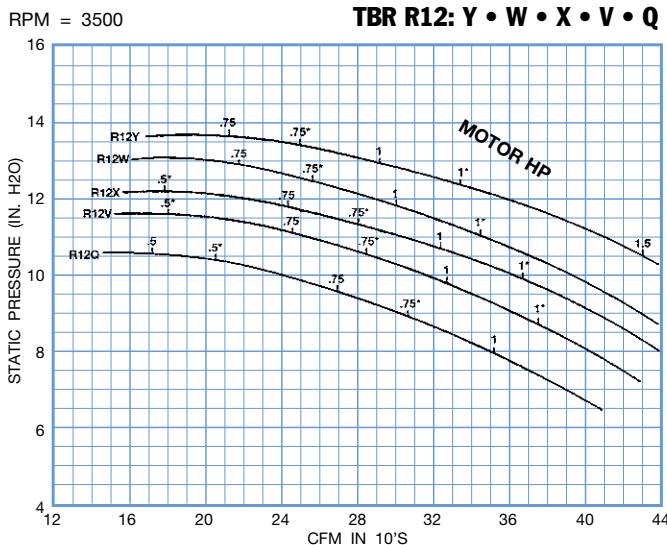
## PERFORMANCE CURVES

### TBR

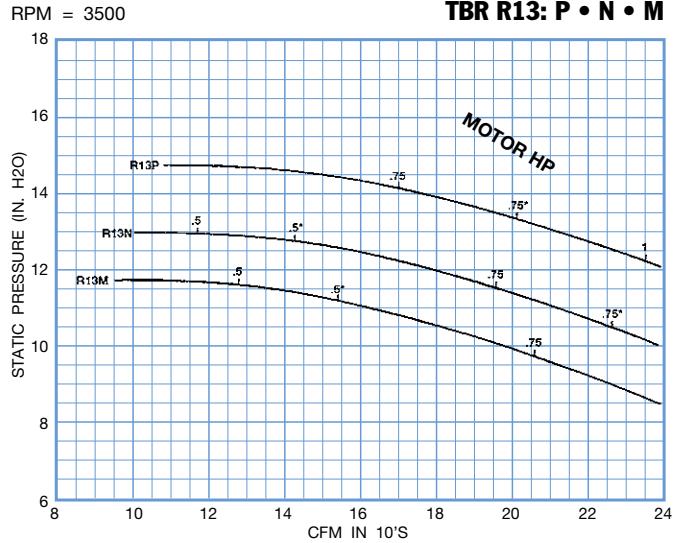
RPM = 3500



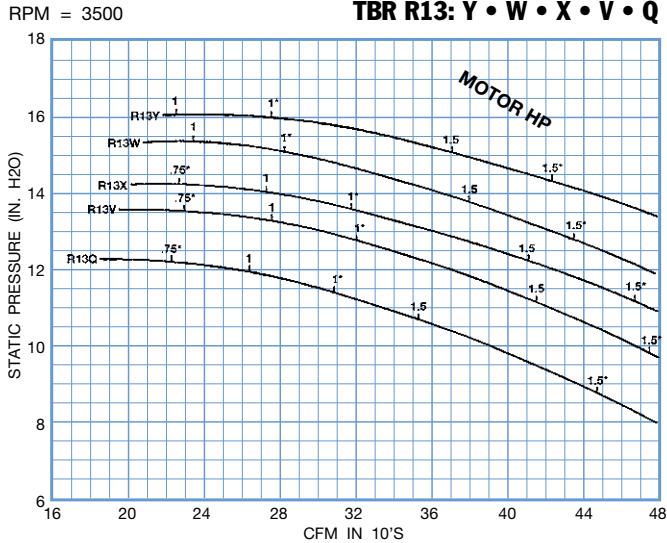
RPM = 3500



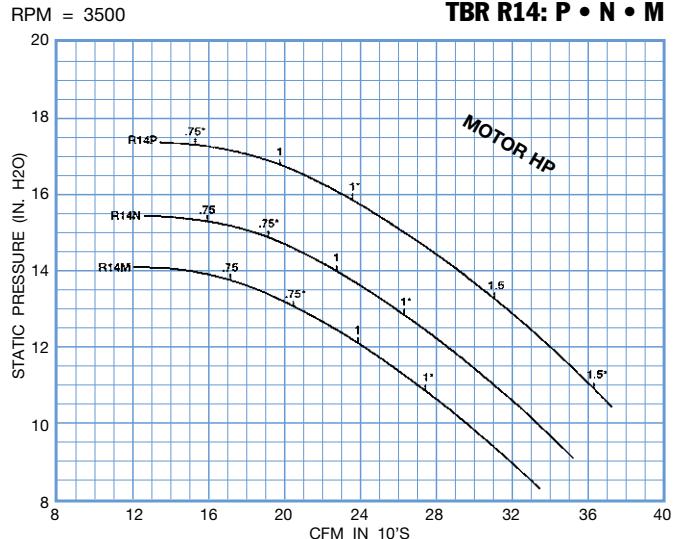
RPM = 3500



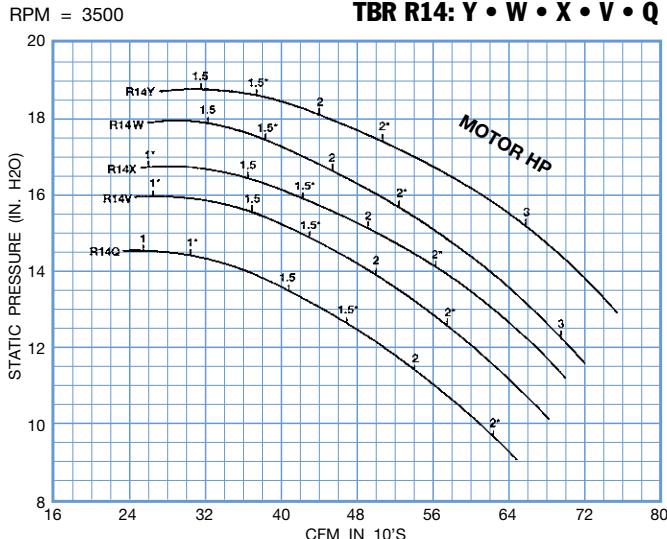
RPM = 3500



RPM = 3500



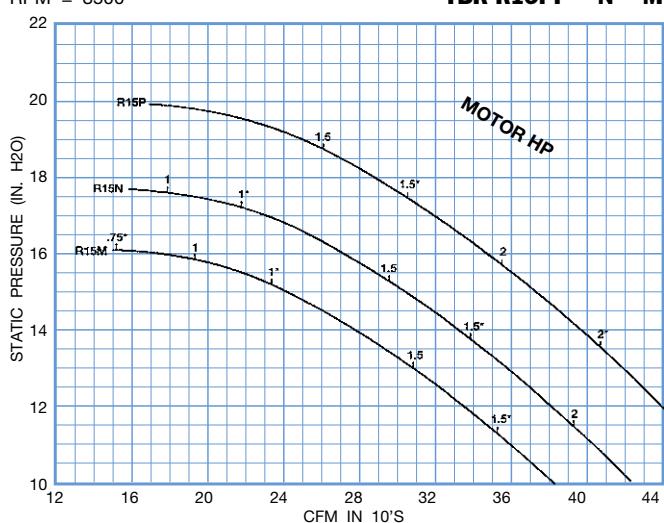
RPM = 3500



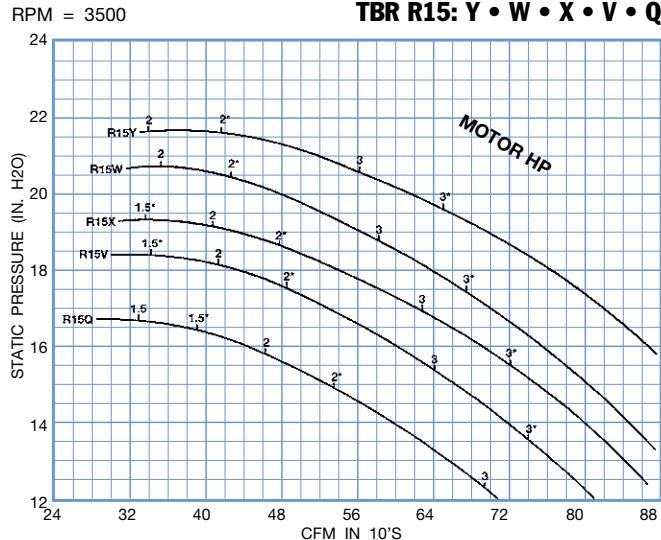
\*INDICATES MOTOR OPERATION AT 1.15 SF

**TBR**

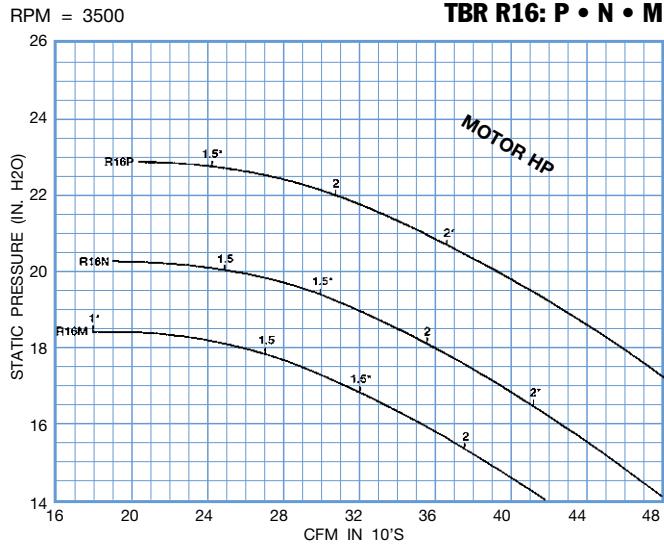
RPM = 3500



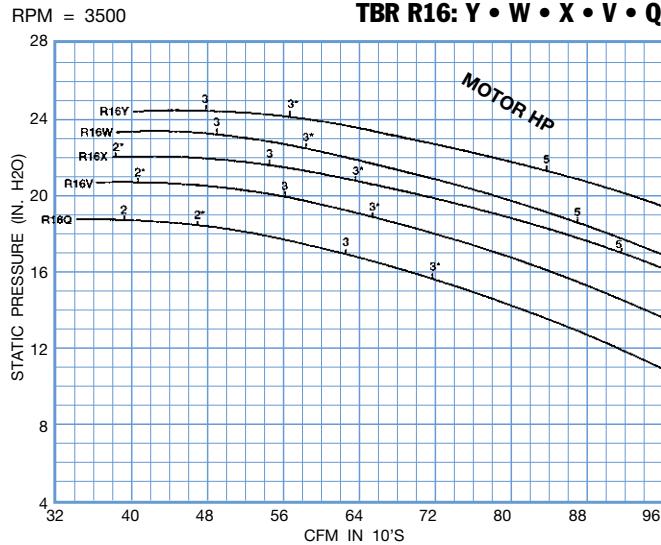
RPM = 3500



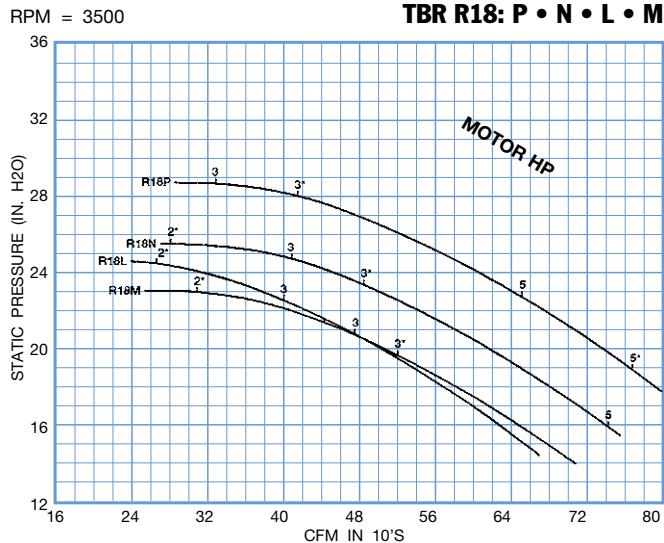
RPM = 3500



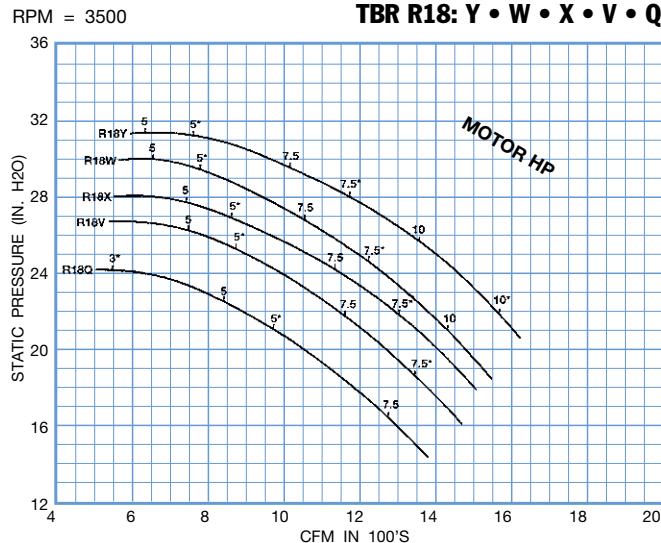
RPM = 3500



RPM = 3500



RPM = 3500

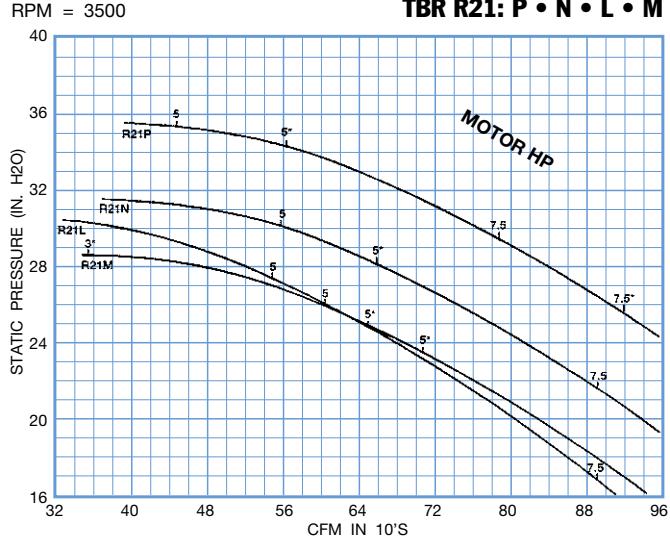


\*INDICATES MOTOR OPERATION AT 1.15 SF

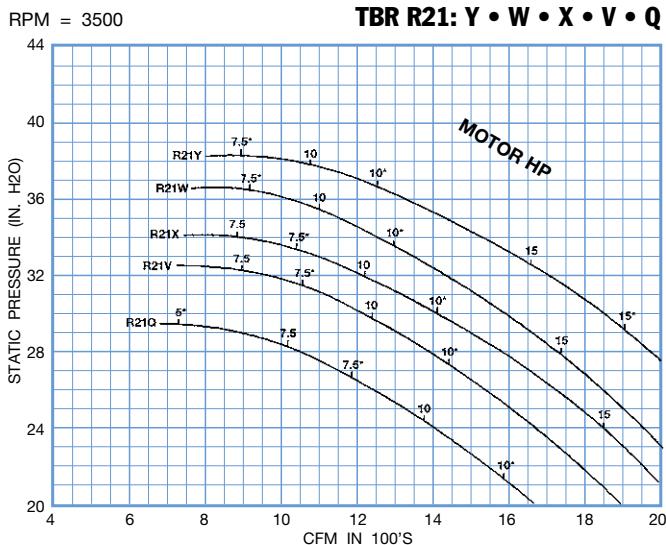
## PERFORMANCE CURVES

### TBR

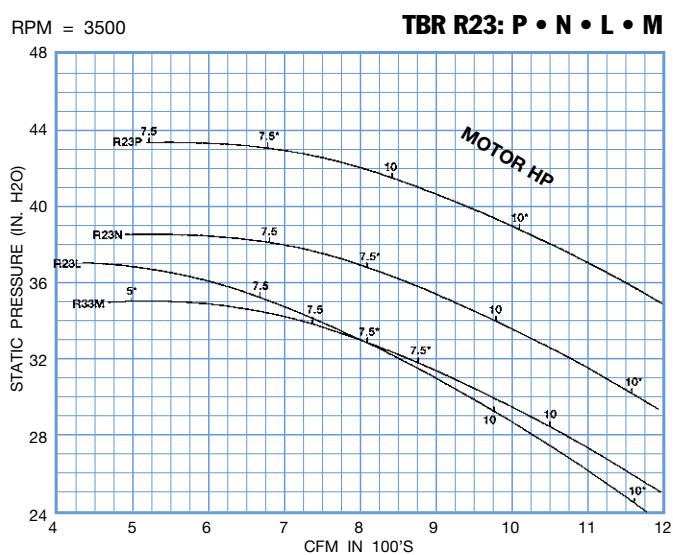
RPM = 3500



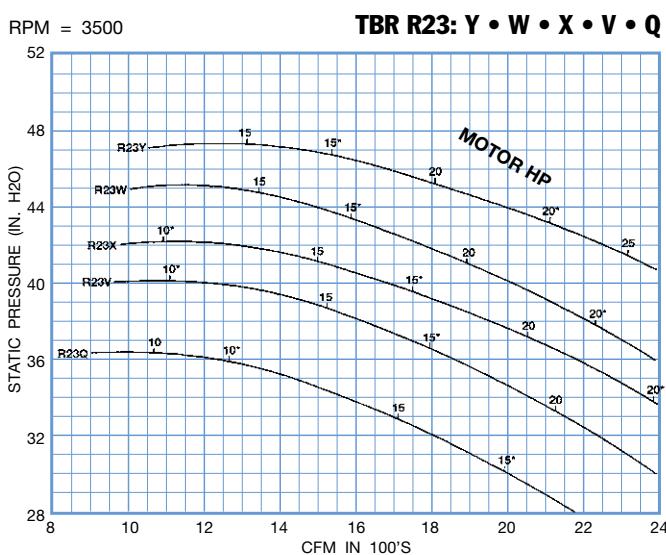
RPM = 3500



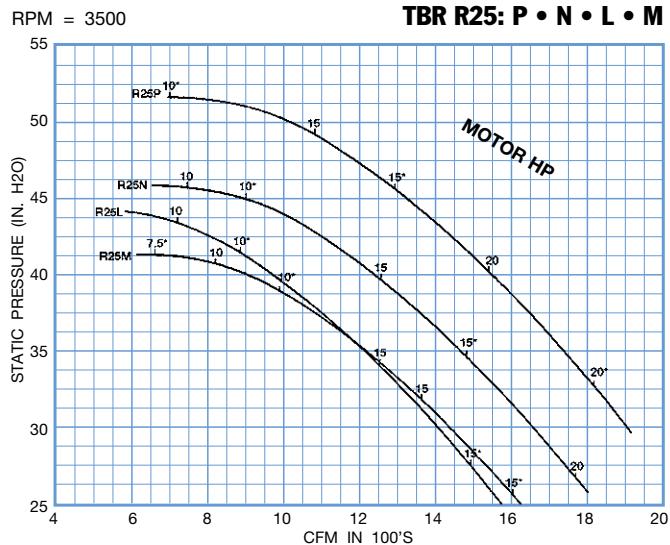
RPM = 3500



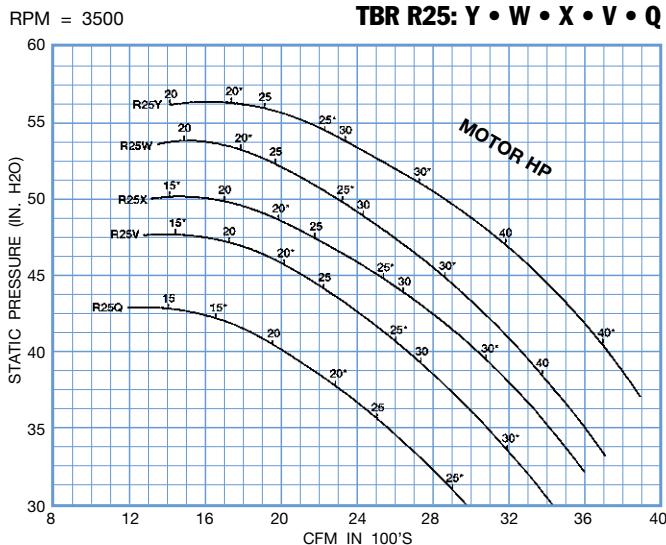
RPM = 3500



RPM = 3500



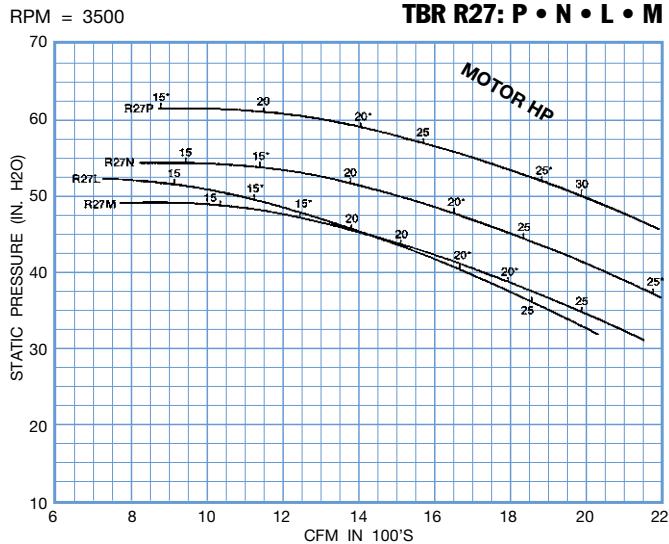
RPM = 3500



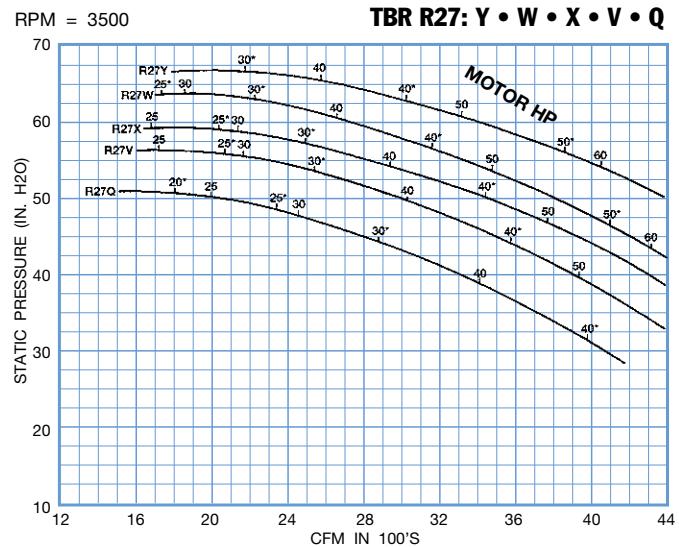
\*INDICATES MOTOR OPERATION AT 1.15 SF

**TBR**

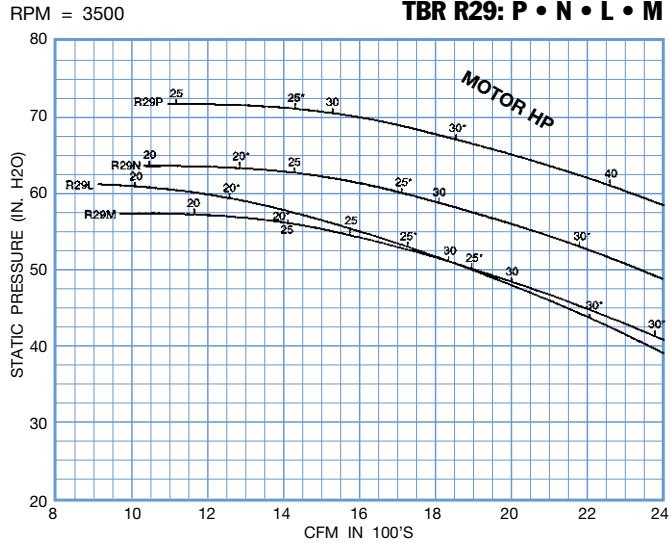
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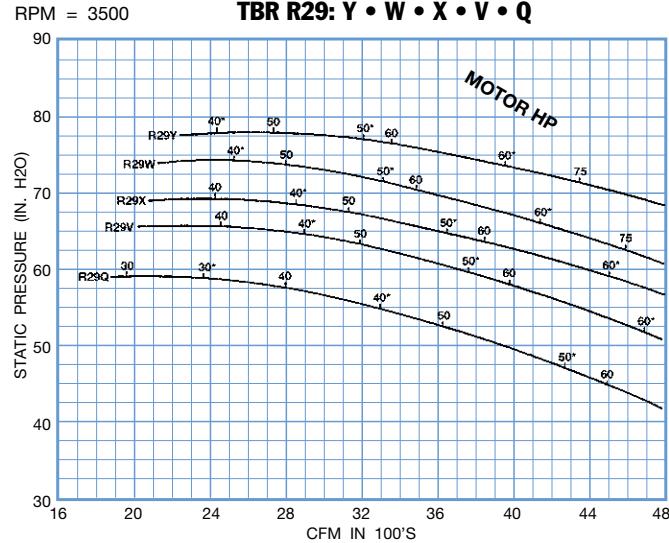
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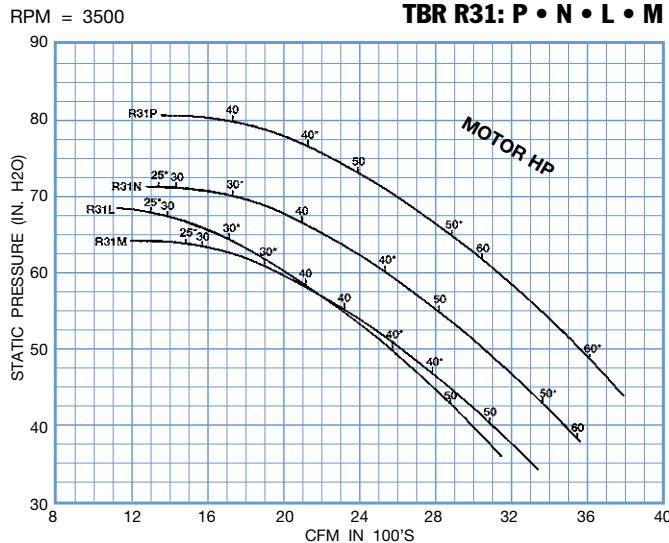
RPM = 3500



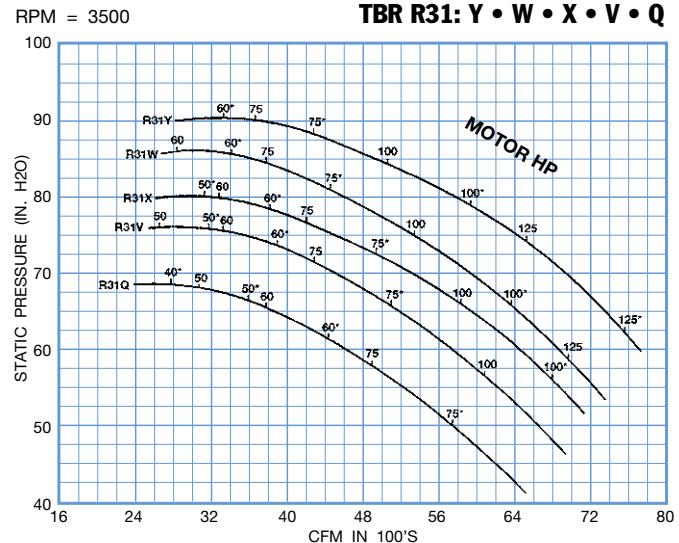
RPM = 3500



RPM = 3500



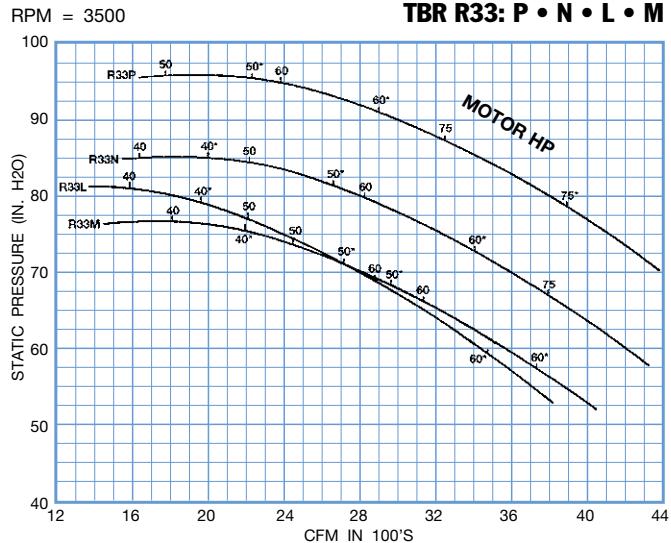
RPM = 3500



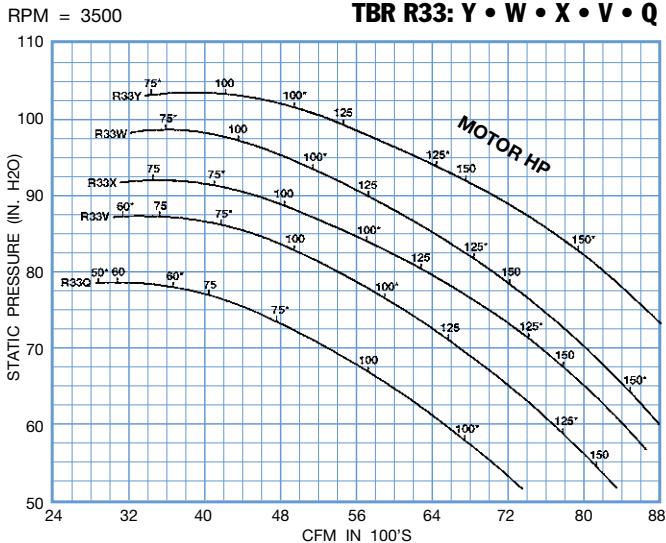
\*INDICATES MOTOR OPERATION AT 1.15 SF

## TBR

RPM = 3500



RPM = 3500

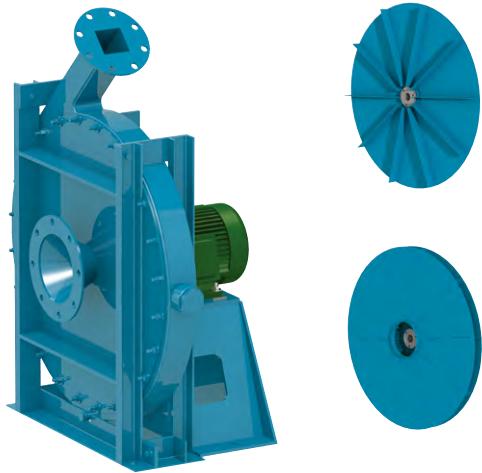


\*INDICATES MOTOR OPERATION AT 1.15 SF



TWIN CITY FAN

**Model HRO / HRS**



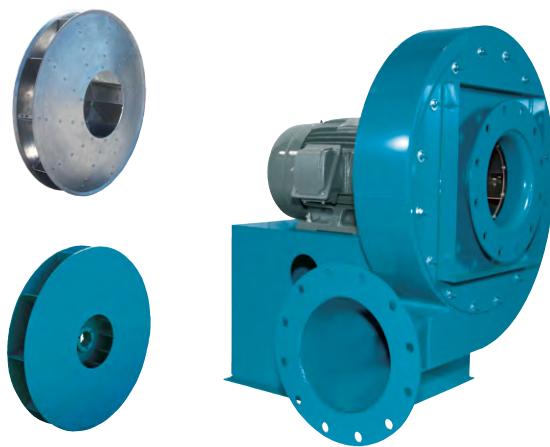
Airflow to 10,000 CFM  
Static pressures up to 120" w.g.

**HRO** - Wheel: radial bladed with backplate and no front shroud

**HRS** - Wheel: radial bladed with backplate and shroud

Additional information can be found in Catalog 1300.

**Model TBNA / TBNS**



Airflow to 5,400 CFM  
Static pressures up to 57" w.g.

**TBNA** - Backward inclined aluminum wheel designed to handle clean-air applications up to 200°F

**TBNS** - Radial steel wheel designed to handle fumes, light particulates, and temperatures up to 600°F

Additional information can be found in Catalog 1250.

**Model MBO / MBR / MBW**



Airflow to 19,000 CFM  
Static pressures over 125" w.g.

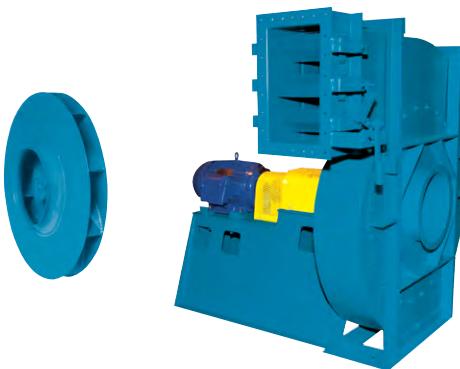
**MBO** - Open radial blades for handling hot, stick and abrasive airstreams

**MBR** - Radial blades with front and back plate for handling clean, hot, or particulate laden airstreams. The most pressure and highest efficiency at a given speed of any MB-Series fan

**MBW** - Radial blades with back plate and no front plate to handle long, stringy, or fibrous materials.

Additional information can be found in Catalog 1400.

**Model BCN**

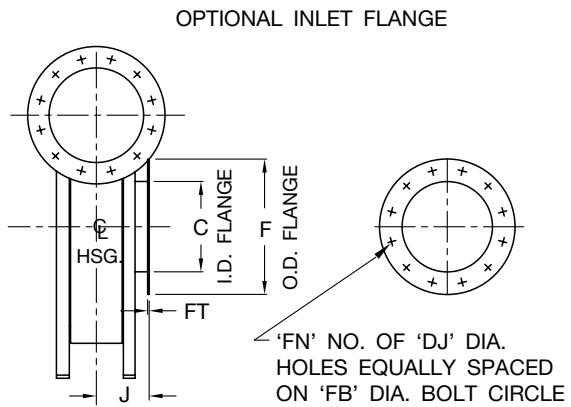
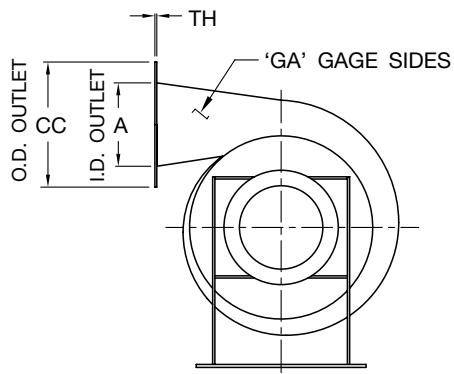
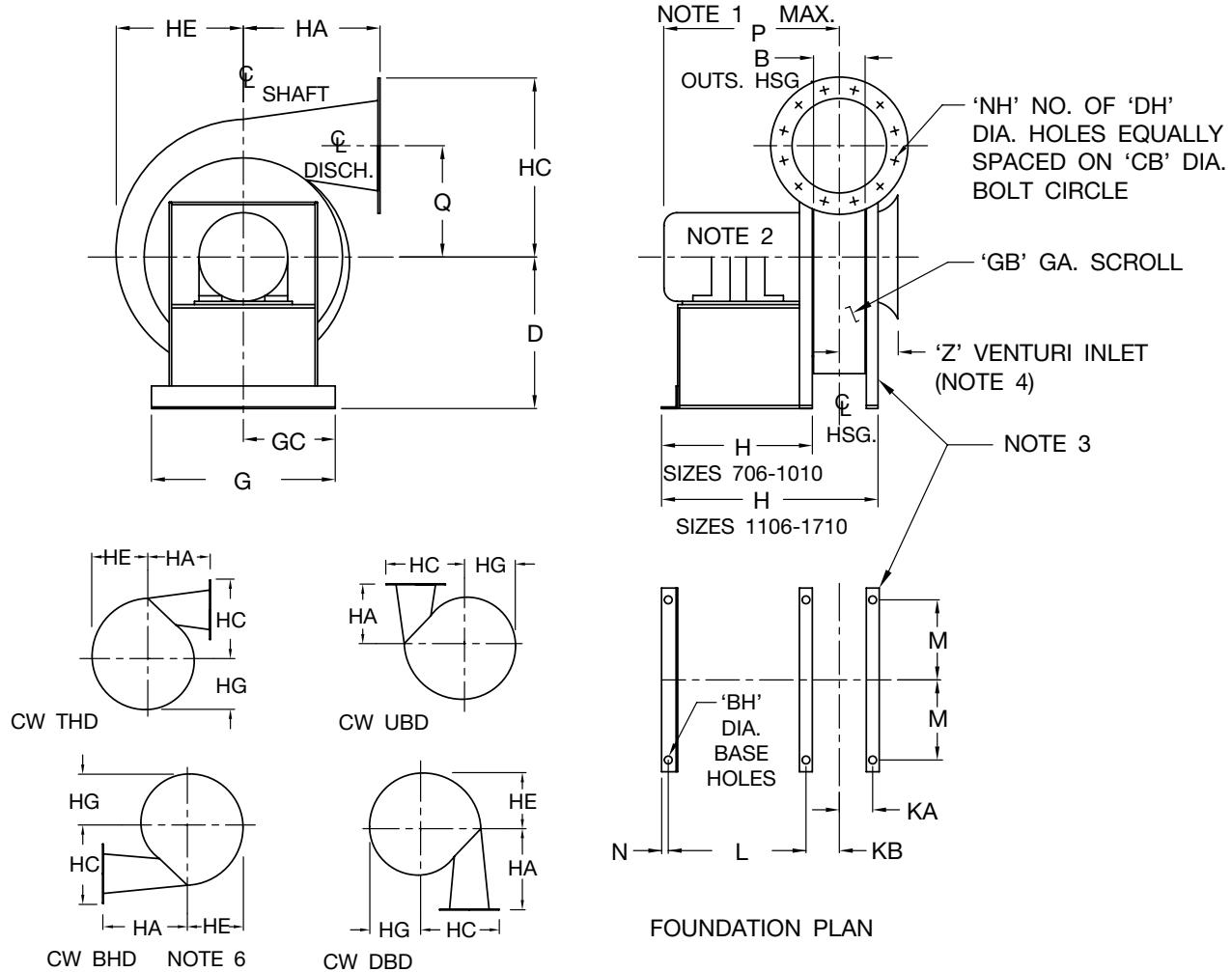


Airflow to 75,000 CFM  
Static pressures to 100" w.g.

**BCN** - High pressure fan utilizing a high efficiency, backward curved, non-overloading blade design. Suitable for clean to light particulate-laden air.

Additional information can be found in Catalog 1450.

## Model TBA – Arrangement 4

**Notes:**

- Dimension 'P' varies with motor size and manufacturer.
- Dimension 'FR' is maximum motor frame.
- Inlet stand on Sizes 1106 and larger only.
- Inlet screen included with venturi type inlet.
- CW rotation is shown, CCW rotation is similar but opposite.
- \* Discharge flange on BHD discharge extends below pedestal base. Amount equals dimension "HC" minus 'D'.

# Model TBA – Arrangement 4

FAN SIZE	A	B	BH	C	CB	CC	D*	DH	DJ	F	FB	FN	FR	FT	G	GA	GB	GC	HC	HE
706	6.00	4.19	0.56	7.00	9.50	11.00	12.38	0.44	0.44	13.50	11.75	8	145T	0.31	15.75	12	10	7.88	14.13	9.88
710	8.00	6.19	0.56	7.00	11.75	13.50	12.38	0.44	0.44	13.50	11.75	8	145T	0.31	15.75	12	10	7.88	15.38	9.88
806	6.00	4.63	0.56	8.00	9.50	11.00	14.00	0.44	0.44	13.50	11.75	8	184T	0.31	13.00	12	10	6.50	15.44	11.38
810	10.00	6.81	0.56	8.00	14.25	16.00	14.00	0.44	0.44	13.50	11.75	8	184T	0.31	13.00	12	10	6.50	17.94	11.38
906	8.00	5.25	0.56	9.00	11.75	13.50	15.50	0.44	0.44	16.00	14.25	12	215T	0.31	18.75	12	10	9.38	17.88	12.75
910	10.00	7.75	0.56	9.00	14.25	16.00	15.50	0.44	0.44	16.00	14.25	12	215T	0.31	18.75	12	10	9.38	19.13	12.75
1006	8.00	5.75	0.56	10.00	11.75	13.50	17.25	0.44	0.44	16.00	14.25	12	254T	0.31	16.50	12	7	8.25	19.19	14.25
1010	12.00	8.50	0.56	10.00	17.00	19.00	17.25	0.56	0.44	16.00	14.25	12	254T	0.31	16.50	12	7	8.25	21.94	14.25
1106	10.00	6.38	0.56	11.00	14.25	16.00	18.50	0.44	0.56	19.00	17.00	12	256T	0.31	18.00	10	7	9.00	21.56	15.50
1110	12.00	9.44	0.56	11.00	17.00	19.00	18.50	0.56	0.56	19.00	17.00	12	256T	0.31	18.00	10	7	9.00	23.06	15.50
1206	10.00	6.88	0.56	12.00	14.25	16.00	20.25	0.44	0.56	19.00	17.00	12	324TS	0.31	23.50	10	7	11.75	22.88	17.13
1210	14.00	10.13	0.56	12.00	18.75	21.00	20.25	0.56	0.56	19.00	17.00	12	324TS	0.31	23.50	10	7	11.75	25.38	17.13
1306	10.00	7.50	0.56	13.00	14.25	16.00	21.75	0.44	0.56	21.00	18.75	12	326TS	0.31	25.00	10	7	12.50	24.06	18.38
1308	12.00	7.50	0.56	13.00	17.00	19.00	21.75	0.56	0.56	21.00	18.75	12	326TS	0.31	25.00	10	7	12.50	25.56	18.38
1310	14.00	11.06	0.56	13.00	18.75	21.00	21.75	0.56	0.56	21.00	18.75	12	326TS	0.31	25.00	10	7	12.50	26.56	18.38
1406	10.00	8.00	0.56	14.00	14.25	16.00	23.25	0.44	0.56	21.00	18.75	12	364TS	0.31	28.50	10	7	14.25	25.38	19.88
1408	14.00	8.00	0.56	14.00	18.75	21.00	23.25	0.56	0.56	21.00	18.75	12	364TS	0.31	28.50	10	7	14.25	27.88	19.88
1410	16.00	11.81	0.56	14.00	21.25	23.50	23.25	0.56	0.56	21.00	18.75	12	364TS	0.31	28.50	10	7	14.25	29.13	19.88
1506	12.00	8.63	0.81	15.00	17.00	19.00	24.75	0.56	0.56	23.50	21.25	16	404TS	0.31	28.50	10	7	14.25	28.00	21.25
1508	14.00	8.63	0.81	15.00	18.75	21.00	24.75	0.56	0.56	23.50	21.25	16	404TS	0.31	28.50	10	7	14.25	29.00	21.25
1510	18.00	12.75	0.81	15.00	22.75	25.00	24.75	0.56	0.56	23.50	21.25	16	404TS	0.31	28.50	10	7	14.25	31.00	21.25
1706	16.00	9.81	0.81	17.00	21.25	23.50	28.00	0.56	0.56	25.00	22.75	16	444TS	0.31	30.50	7	7	15.25	32.75	24.00
1710	20.00	14.44	0.81	17.00	25.00	27.50	28.00	0.56	0.56	25.00	22.75	16	444TS	0.31	30.50	7	7	15.25	34.75	24.00

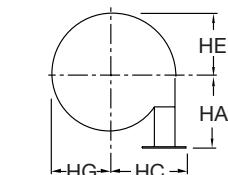
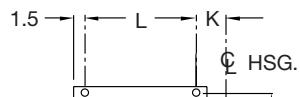
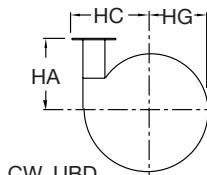
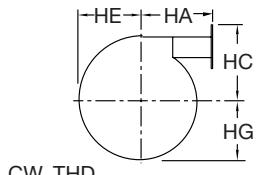
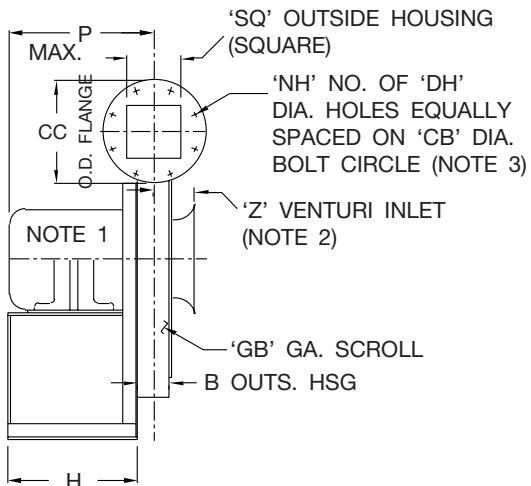
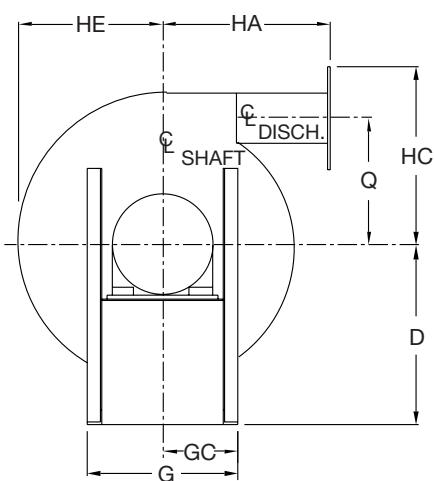
FAN SIZE	HG	THD & UBD ONLY					DBD & BHD ONLY					M	N	NH	P	Q	TH	Z		
		H	HA	J	KA	KB	L	H	HA	J	KA	KB	L							
706	9.13	12.19	11.00	6.25	—	3.25	9.06	10.19	16.75	6.25	—	5.25	7.06	6.88	2.13	8	14.50	8.63	0.31	5.94
710	9.13	12.19	11.00	7.25	—	4.25	9.06	10.19	16.75	7.25	—	6.25	7.06	6.88	2.13	8	15.50	8.63	0.31	6.94
806	10.50	12.31	12.00	6.50	—	3.50	9.19	10.31	22.00	6.50	—	5.50	7.19	5.50	2.13	8	15.63	9.94	0.31	6.94
810	10.50	12.31	12.00	7.56	—	4.56	9.19	10.31	22.00	7.56	—	6.56	7.19	5.50	2.13	12	16.69	9.94	0.31	8.06
906	11.75	15.94	13.00	6.81	—	3.81	12.81	13.94	19.81	6.81	—	5.81	10.81	8.38	2.13	8	19.81	11.13	0.31	7.06
910	11.75	15.94	13.00	8.06	—	5.06	12.81	13.94	19.81	8.06	—	7.06	10.81	8.38	2.13	12	21.06	11.13	0.31	8.31
1006	13.13	17.50	14.00	7.06	—	4.06	14.38	15.50	25.06	7.06	—	6.06	12.38	7.25	2.13	8	25.06	12.44	0.31	7.63
1010	13.13	17.50	13.94	8.44	—	5.44	14.38	15.50	25.00	8.44	—	7.44	12.38	7.25	2.13	12	26.44	12.44	0.31	9.00
1106	14.25	28.31	16.00	7.38	4.38	4.38	16.44	30.31	23.50	9.38	6.38	6.38	14.44	8.00	2.13	12	25.38	13.56	0.31	8.38
1110	14.25	31.38	15.94	8.88	5.88	5.88	16.44	33.38	23.44	10.88	7.88	7.88	14.44	8.00	2.13	12	26.88	13.56	0.31	9.94
1206	15.75	32.13	17.00	7.63	4.63	4.63	19.75	34.13	28.31	9.63	6.63	6.63	17.75	10.75	2.13	12	30.50	14.88	0.31	9.19
1210	15.75	35.38	16.94	9.25	6.25	6.25	19.75	37.38	28.25	11.25	8.25	8.25	17.75	10.75	2.13	12	32.13	14.88	0.31	10.81
1306	16.88	32.94	18.00	7.94	4.94	4.94	19.94	34.94	26.88	9.94	6.94	6.94	17.94	11.50	2.13	12	30.81	16.06	0.31	10.13
1308	16.88	32.94	17.94	7.94	4.94	4.94	19.94	34.94	26.82	9.94	6.94	6.94	17.94	11.50	2.13	12	30.81	16.06	0.31	10.13
1310	16.88	36.50	18.00	9.69	6.69	6.69	19.94	38.50	26.88	11.69	8.69	8.69	17.94	11.50	2.13	12	32.56	16.06	0.38	11.94
1406	18.25	34.75	21.00	8.19	5.19	5.19	21.25	36.75	32.31	10.19	7.19	7.19	19.25	13.00	2.13	12	32.81	17.38	0.31	9.38
1408	18.25	34.75	21.00	8.19	5.19	5.19	21.25	36.75	32.13	10.19	7.19	7.19	19.25	13.00	2.13	12	32.81	17.38	0.38	9.38
1410	18.25	38.56	21.00	10.06	7.06	7.06	21.25	40.56	32.31	12.06	9.06	9.06	19.25	13.00	2.13	16	34.69	17.38	0.38	11.31
1506	19.50	36.69	20.94	8.50	5.50	5.50	22.56	38.69	38.19	10.50	7.50	7.50	20.56	13.00	2.13	12	37.13	18.50	0.38	10.69
1508	19.50	36.69	21.00	8.50	5.50	5.50	22.56	38.69	38.25	10.50	7.50	7.50	20.56	13.00	2.13	12	37.13	18.50	0.38	10.69
1510	19.50	40.81	21.00	10.56	7.56	7.56	22.56	42.81	38.25	12.56	9.56	9.56	20.56	13.00	2.13	16	39.19	18.50	0.38	12.75
1706	22.13	39.31	25.00	9.06	6.06	6.06	24.00	41.31	41.81	11.06	8.06	8.06	22.00	14.00	2.13	16	43.81	21.00	0.38	10.81
1710	22.13	43.94	25.00	11.38	8.38	8.38	24.00	45.94	41.81	13.38	10.38	10.38	22.00	14.00	2.13	20	46.13	21.00	0.38	13.13

BC13278H

DIMENSIONS NOT TO BE USED FOR CONSTRUCTION. CERTIFIED DRAWINGS AVAILABLE UPON REQUEST.

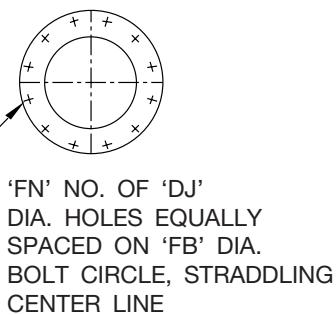
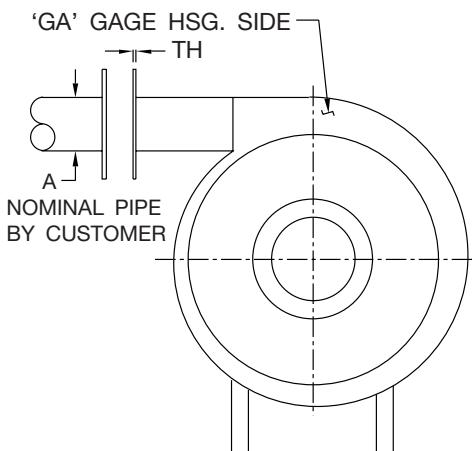


## Model TBR – Arrangement 4



FOUNDATION PLAN

CW BHD

**Notes:**

1. Smaller motors use Construction #1. Larger motors use Construction #2. Dimension 'FR' denotes allowable motor frames.
2. Inlet screen included with venturi type inlet.
3. Outlet flange mounting holes straddle center line, except sizes R31 and R33, with 'QVWXY' wheel.
4. CW rotation is shown, CCW rotation is similar but opposite.

# Model TBR – Arrangement 4

FAN SIZE	WHEEL	A	B	BH	C	CB	CC	D	DH	DJ	F	FB	FN	FT	G	GA	GB	GC	THD, UBD & BHD		DBD	HC
																		HA				
R11	QVWXY	4	2.38	0.56	4.13	7.50	9.00	12.00	0.44	0.44	9.00	7.50	8	0.31	10.25	10	10	5.13	10.38	18.38	11.69	
R12	QVWXY	4	2.50	0.56	4.63	7.50	9.00	13.00	0.44	0.44	10.00	8.50	8	0.31	10.25	10	10	5.13	11.06	19.06	12.81	
R13	MNP	3	1.88	0.56	4.13	6.00	7.50	14.00	0.44	0.44	9.00	7.50	8	0.31	10.25	10	10	5.13	11.94	19.94	12.75	
R13	QVWXY	4	2.63	0.56	5.25	7.50	9.00	14.00	0.44	0.44	10.00	8.50	8	0.31	10.25	10	10	5.13	12.00	20.00	13.50	
R14	MNP	3	1.94	0.56	4.13	6.00	7.50	15.00	0.44	0.44	9.00	7.50	8	0.31	11.25	10	10	5.63	12.88	20.88	13.50	
R14	QVWXY	5	2.75	0.56	5.63	8.50	10.00	15.00	0.44	0.44	11.00	9.50	8	0.31	11.25	10	10	5.63	12.81	20.81	14.75	
R15	MNP	3	2.00	0.56	4.13	6.00	7.50	16.00	0.44	0.44	9.00	7.50	8	0.31	12.50	10	10	6.25	13.81	21.81	14.19	
R15	QVWXY	5	2.88	0.56	6.38	8.50	10.00	16.00	0.44	0.44	11.00	9.50	8	0.31	12.50	10	10	6.25	13.75	21.75	15.44	
R16	MNP	4	2.06	0.56	4.63	7.50	9.00	16.50	0.44	0.44	10.00	8.50	8	0.31	13.75	10	10	6.88	14.75	22.75	15.38	
R16	QVWXY	5	3.00	0.56	6.63	8.50	10.00	16.50	0.44	0.44	13.50	11.75	8	0.31	13.75	10	10	6.88	14.69	22.69	16.13	
R18	LMNP	4	2.19	0.69	5.25	7.50	9.00	18.25	0.44	0.44	11.00	9.50	8	0.31	15.00	10	10	7.50	16.56	24.56	17.00	
R18	QVWXY	6	3.31	0.69	7.38	9.50	11.00	18.25	0.44	0.44	13.50	11.75	8	0.31	15.00	10	10	7.50	16.56	24.56	18.00	
R21	LMNP	4	2.56	0.69	5.63	7.50	9.00	19.50	0.44	0.44	11.00	9.50	8	0.31	16.75	7	7	8.38	18.38	26.38	18.38	
R21	QVWXY	6	3.81	0.69	7.75	9.50	11.00	19.50	0.44	0.44	13.50	11.75	8	0.31	16.75	7	7	8.38	18.32	26.32	19.38	
R23	LMNP	5	2.81	0.69	6.38	8.50	10.00	22.25	0.44	0.44	13.50	11.75	8	0.31	18.00	7	7	9.00	20.13	28.13	20.31	
R23	QVWXY	8	4.13	0.69	8.63	11.75	13.50	22.25	0.44	0.56	16.00	14.25	12	0.31	18.00	7	7	9.00	20.13	28.13	22.06	
R25	LMNP	5	3.00	0.69	6.63	8.50	10.00	23.50	0.44	0.44	13.50	11.75	8	0.31	19.75	7	7	9.88	21.94	29.94	21.69	
R25	QVWXY	8	4.50	0.69	9.88	11.75	13.50	23.50	0.44	0.56	16.00	14.25	12	0.31	19.75	7	7	9.88	21.94	29.94	23.44	
R27	LMNP	6	3.19	0.69	7.25	9.50	11.00	25.00	0.44	0.44	13.50	11.75	8	0.31	21.00	7	7	10.50	23.75	31.75	23.56	
R27	QVWXY	8	4.75	0.69	10.31	11.75	13.50	25.00	0.44	0.56	16.00	14.25	12	0.31	21.00	7	7	10.50	23.75	31.75	24.81	
R29	LMNP	6	3.56	0.81	7.75	9.50	11.00	27.50	0.44	0.44	13.50	11.75	8	0.31	22.75	.25	.25	11.38	25.56	33.56	24.94	
R29	QVWXY	10	5.25	0.81	11.00	14.25	16.00	27.50	0.56	0.56	19.00	17.00	12	0.50	22.75	.25	.25	11.38	25.56	33.56	27.44	
R31	LMNP	6	3.75	0.81	8.50	9.50	11.00	29.00	0.44	0.56	16.00	14.25	12	0.31	25.25	.25	.25	12.63	27.38	35.38	26.38	
R31	QVWXY	10	5.63	0.81	12.25	14.25	16.00	29.00	0.56	0.56	19.00	17.00	12	0.50	25.25	.25	.25	12.63	27.38	35.38	28.88	
R33	LMNP	8	3.94	0.81	9.00	11.75	13.50	30.50	0.44	0.56	16.00	14.25	12	0.31	26.00	.25	.25	13.00	29.25	37.25	29.00	
R33	QVWXY	10	5.94	0.81	12.63	14.25	16.00	30.50	0.56	0.56	19.00	17.00	12	0.50	26.00	.25	.25	13.00	29.25	37.25	30.25	

SIZE	WHEEL	CONSTRUCTION #1				CONSTRUCTION #2				HE	HG	J	K	M	NH	Q	SQ	TH	Z								
		FR	H	L	P	FR	H	L	P																		
R11	QVWXY	56-143T	8.00	5.00	14.69					8.69	8.25	5.13	2.69	4.50	8	7.44	3.25	0.31	3.88								
R12	QVWXY	56-145T	10.00	7.00	14.88					9.69	9.19	5.19	2.75	4.50	8	8.31	3.56	0.31	3.94								
R13	MNP	56-182T	10.00	7.00	16.06					10.44	9.88	4.88	2.44	4.50	4	9.00	2.63	0.31	3.63								
R13	QVWXY	56-182T	10.00	7.00	16.44					10.44	9.88	5.25	2.81	4.50	8	9.00	3.88	0.31	4.00								
R14	MNP	56-184T	11.00	8.00	16.13					11.25	10.69	4.94	2.50	5.00	4	9.75	2.81	0.31	3.69								
R14	QVWXY	56-184T	11.00	8.00	16.50					11.25	10.69	3.31	2.88	5.00	8	9.75	4.19	0.31	4.06								
R15	MNP	56-184T	11.00	8.00	16.13					12.00	11.38	4.94	2.50	5.63	4	10.44	3.00	0.31	3.69								
R15	QVWXY	56-184T	11.00	8.00	16.56					12.00	11.38	5.38	2.94	5.63	8	10.44	4.50	0.31	4.13								
R16	MNP	56-215T	13.00	10.00	18.94					12.81	12.19	5.00	2.56	6.25	8	11.13	3.19	0.31	3.75								
R16	QVWXY	56-215T	13.00	10.00	19.38					12.81	12.19	5.44	3.00	6.25	8	11.13	4.75	0.31	5.69								
R18	LMNP	143T-215T	13.00	10.00	19.50					14.44	13.69	5.06	2.63	6.63	8	12.50	3.50	0.31	3.81								
R18	QVWXY	143T-215T	13.00	10.00	20.06					14.44	13.69	5.63	3.19	6.63	8	12.50	5.31	0.31	5.00								
R21	LMNP	145T-213T	13.00	10.00	20.19	215T-256T	18.00	15.00	25.19		16.00	15.25	5.25	2.81	7.50	8	13.88	4.00	0.31	4.00							
R21	QVWXY	145T-213T	13.00	10.00	20.81	215T-256T	18.00	15.00	25.81		16.00	15.25	5.88	3.44	7.50	8	13.88	5.94	0.31	6.56							
R23	LMNP	182T-215T	14.00	11.00	20.19	254T-286TS	19.00	16.00	27.94		17.63	16.75	5.31	2.94	8.13	8	15.31	4.31	0.31	4.13							
R23	QVWXY	182T-215T	14.00	11.00	20.81	254T-286TS	19.00	16.00	28.56		17.63	16.75	5.94	3.56	8.13	8	15.31	6.44	0.31	7.06							
R25	LMNP	184T-254T	17.00	14.00	25.13	256T-324TS	20.00	17.00	30.75		19.19	18.25	5.38	3.00	9.00	8	16.69	4.69	0.31	5.69							
R25	QVWXY	184T-254T	17.00	14.00	25.88	256T-324TS	20.00	17.00	31.50		19.19	18.25	6.13	3.75	9.00	8	16.69	7.00	0.31	5.75							
R27	LMNP	215T-256T	18.00	15.00	25.25	284TS-364TS	22.00	19.00	32.63		20.75	19.75	5.50	3.13	9.63	8	18.06	5.06	0.31	4.94							
R27	QVWXY	215T-256T	18.00	15.00	26.00	284TS-364TS	22.00	19.00	33.38		20.75	19.75	6.25	3.88	9.63	8	18.06	7.56	0.31	5.50							
R29	LMNP	215T-286TS	19.00	16.00	28.19	324TS-365TS	23.00	20.00	32.81		22.44	21.38	5.56	3.31	10.25	8	19.44	5.56	0.31	6.44							
R29	QVWXY	215T-286TS	19.00	16.00	29.00	324TS-365TS	23.00	20.00	33.63		22.44	21.38	6.38	4.13	10.25	12	19.44	8.25	0.31	7.56							
R31	LMNP	254T-324TS	20																								

## Model TBA

Furnish and install as shown on the plans Model TBA Turbo Pressure Air Handling Blower of the arrangement indicated, as manufactured by Twin City Fan & Blower, Minneapolis, Minnesota.

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

**HOUSING** — Model TBA Turbo Blower housings are to be constructed with frames of continuously welded heavy gauge steel with reinforcement as required to maintain shape and prevent vibration at operating pressures. Turbo blowers feature a solidly welded steel motor pedestal with heavy plate and angle bracing for positive alignment and smooth operation. The housing design provides for wheel removal on the inlet side. The TBA housing is adjustable to 6 discharge positions. Positions BHD and DBD require an extended discharge. An inlet venturi for smooth air entry on non-ducted fans is included. Flanges match the hole pattern and diameters of ASA 125# flanges. Model TBA Turbo Blowers are available in Arrangement 4 and Arrangement 8.

**WHEEL** — TBA wheels with backward-inclined blades are designed for high efficiency air handling at relatively high volume and pressures. Wheels shall be all welded construction from high strength steel. Heavy gauge blades shall be welded to a spun cone and heavy gauge backplate. Wheels shall be precision balanced for trouble-free operation. Hubs shall be taperlock for easy removal and accurate, self-centering reinstallation. Aluminum and stainless steel construction is available. Model TBA Blowers are generally suitable for clean air applications.

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

**ACCESSORIES** — When specified, accessories shall be provided by Twin City Fan & Blower to maintain one source responsibility.

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

**GUARANTEE** — The manufacturer shall guarantee the workmanship and materials for at least one (1) year from startup or eighteen (18) months from shipment, whichever occurs first.

## Model TBR

Furnish and install as shown on the plans Model TBR Turbo Pressure Radial Blade Blower of the arrangement indicated, as manufactured by Twin City Fan & Blower, Minneapolis, Minnesota.

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

**HOUSING** — Model TBR Turbo Blower housings are to be constructed with frames of continuously welded heavy gauge steel with reinforcement as required for pulsation-free operation and to maintain shape at operating pressures. Model TBR Blowers shall be constructed with a non-rotatable housing design. An inlet venturi for smooth air entry on non-ducted fans is included. The housing design provides for wheel removal on the inlet side. The turbo blower features a solidly welded steel motor pedestal with heavy plate and angle bracing for positive and smooth operation. Model TBR Turbo Blowers are available in Arrangement 4 and Arrangement 8 and are available in all 8 discharge positions.

**WHEEL** — TBR radial wheels are designed for high efficiency air handling at relatively low volume and high pressures. Wheels shall be all welded construction from high strength steel. Heavy gauge blades shall be welded to heavy gauge front and back plates. Wheels shall be precision balanced for trouble-free operation. Hubs shall be taperlock for easy removal and accurate, self-centering reinstallation. Aluminum and stainless steel construction is available. Model TBR Blowers are generally suitable for clean air applications.

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

**ACCESSORIES** — When specified, accessories shall be provided by Twin City Fan & Blower to maintain one source responsibility.

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

**GUARANTEE** — The manufacturer shall guarantee the workmanship and materials for at least one (1) year from startup or eighteen (18) months from shipment, whichever occurs first.



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