



Rotron / Airscrew



NOTES:



Rotron MAXIAX[®] 5.75 Large Vaneaxial Fans

General Large Vaneaxial Information

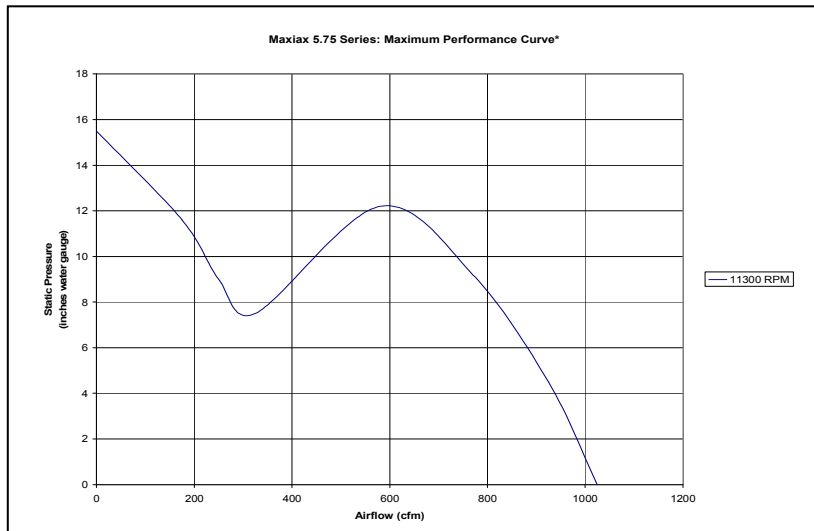
MAXIAX[®] fans provide relatively high flows against high impedance in a compact axial flow package. They operate at high rotational speeds, typically with 400 Hz motors or internal ECDC brushless motors. MAXIAX[®] fans are extremely efficient and highly customizable, allowing for precise airflow design.

MAXIAX[®] fans are typically utilized to cool airborne radar and other devices with high power transmitters. They are also employed as evaporator/condenser fans in environmental controls systems and to duct air to

various aircraft avionics bays, cockpit displays and cabin compartments. MAXIAX[®] fans are also used extensively in general aviation aircraft, military vehicles and shelters and shipboard applications.

They come in a variety of voltages and frequencies and are available with lead wires, terminal blocks and MS connectors. Most units are available with an optional internal Fan Performance Sensor (FPS) or an internal or external Low Speed Warning Device (LSWD).

Rotron MAXIAX[®] 5.75



*Individual Performance Curve Characteristics Available Upon Request

General

- Physical envelope: 5.75" diameter, 5.50 to 10.6" lengths ¹.
- Weight: 6.7 to 12.0 lbs.
- Specially designed for avionics/equipment cooling and environmental control systems.
- Speeds as high as 14,500 RPM.
- Airflow as high as 1046 CFM.
- Functional Static Pressures: as high as 12 IWG.

Materials and Finishes

- All aluminum components finished with a chemical conversion coating per MIL-C-5541, top coat of lusterless black enamel, color #37038, per Federal Standard 595 conforming to TT-E-489 Type B.
- Corrosion-resistant stainless steel shaft and hardware.
- Impeller runs on two high-precision, double-shielded, stainless steel ball bearings (ABEC Class 5) for a long, maintenance-free life.
- Motors have stator winding insulation which is rated for continuous duty for either Class F or Class H.

¹ Note: See specific part-number drawing for complete product dimensions

Options/Accessories

- Flanges
- Beads
- Check Valves
- Custom Designs Available
- Integral EMI filter
- LSWD (Low Speed Warning Device)
- FPS (Fan Performance Sensor)



AC Line Powered Units¹

- 3-phase and 1-phase permanent-split capacitor motor designs.
- Fixed speeds (performance) based on input frequency.
- Meets or exceeds the requirements of MIL-B-23071 and other applicable U.S. military and commercial aerospace specifications².
- Max free delivery airflow of 1046 CFM at 400 Hz.
- Ambient temperature range: -54 °C to 100 °C.
- Acoustic levels as low as 83 dBA.

¹ Airflow, maximum ambient and acoustic levels will vary depending on design parameters

² Please call for further information concerning applicable U.S. military and commercial aerospace specifications

DC Powered Units – E.C.D.C.^{®1}

- Brushless permanent magnet design (Electronically Commutated DC).
- Speed (performance) fixed by input voltage.
- Meets or exceeds the requirements of MIL-B-28873 and other applicable U.S. military and commercial aerospace specifications².
- Max free delivery airflow of 956 CFM.
- Ambient temperature range: -40 °C to 85 °C.
- Acoustic levels as low as 78 dBA.
- Standard 24 and 28 volt designs.

Optional DC-AC Inverters and AC-AC Converters for AC Powered Models¹

BATAC[®] Inverter Driven Units

- AC square wave fans driven from a DC power source through a BATAC[®] Inverter.
- Low cost alternative when multiple fans are used in a single application or area.
- Allows for greater than 100 VDC input voltage.

¹ See Accessories: Power Conversion

DELTA[®] Converter Driven Units

- DELTAC[®] converters allow high frequency (typically 400 Hz) fans to be driven by variable frequency (typically 360-800 Hz) power or low frequency 50/60 Hz power to obtain the higher frequency performance.

Unit Description Key

The unit description key is for reference only and should not be confused with a part number. While most units are custom configurations, not all variations of the key shown below are possible. Please contact the Application Engineering department for more information regarding possible custom configurations.

AC MODELS

MAX 475 01 A Q 2 C L N 1894 JF

MOTOR SERIES
FAN PERFORMANCE SENSOR
N- WITHOUT, S-WITH
CONNECTOR
L- LEADWIRES
M- MILITARY, MS ATTACHED TO HOUSING
N- MILITARY, MS ATTACHED TO LEADS
T- TERMINAL BLOCK

MOUNTING CONFIGURATION
A- FLANGED, INLET ONLY
B- FLANGED, OUTLET ONLY
C- FLANGED, BOTH ENDS
D- FLANGED INLET, BEADED OUTLET
E- FLANGED OUTLET, BEADED INLET
F- BEADED, BOTH ENDS
G- FLANGED CENTER, PLAIN ENDS
H- FLANGED CENTER, BEADED ENDS
I- PLAIN, BOTH ENDS
J- FLANGED INLET ONLY WITH INLET PERFORMANCE RING
K- FLANGED OUTLET ONLY WITH INLET PERFORMANCE RING
L- FLANGED, BOTH ENDS WITH INLET PERFORMANCE RING
M- FLANGED INLET, BEADED OUTLET WITH INLET PERFORMANCE RING
N- FLANGED OUTLET, BEADED INLET WITH INLET PERFORMANCE RING
O- BEADED, BOTH ENDS WITH INLET PERFORMANCE RING
P- FLANGED CENTER, PLAIN ENDS WITH INLET PERFORMANCE RING
Q- FLANGED CENTER, BEADED ENDS WITH INLET PERFORMANCE RING
R- PLAIN, BOTH ENDS WITH INLET PERFORMANCE RING
S- LEGS, WITH INLET PERFORMANCE RING
T- SERVO RINGS, BOTH ENDS
X- SPECIAL

VOLTAGE
1- 115
2- 200
3- 115/230
4- 416

NO. POLES	NO. PHASES	APPOX. SPEED- NO LOAD (REF.)		
		50 Hz	60 Hz	400 Hz
A	2	3	2900	3500
B	4	3	1450	1750
E	6	1 OR 3	950	1150
F	8	1 OR 3	700	850
K	2	1	2900	3500
L	4	1	1450	1750
M	6	1 OR 3	-	7500
N	8	1 OR 3	-	5500
P	12	1 OR 3	-	3900
Q	4	1 OR 3	-	11000
R	2	1 OR 3	-	23000

NOTE: DUAL FREQUENCY OR DUAL POLE MOTORS DESIGNATED BY USING 2 DIGITS. EX: KM = (2 POLE 1Φ 50/60 Hz, 6 POLE 1Φ 400 Hz)

ELECTRICAL DATA
A- AC LINE OPERATED

DESIGN SEQUENCE

SIZE GROUP
APPROXIMATE HOUSING O.D.:
NUMBER IS DIMENSIONED IN
INCHES TO TWO DECIMAL
PLACES. THE PERIOD IS NOT
SHOWN

DC MODELS (SAME AS AC EXCEPT WHERE INDICATED)

MAX 420 01 D 28 C N N 1894 JF

VOLTAGE

ELECTRICAL DATA
D- DC LINE OPERATED
E- ECDC
M- MCDC

EXAMPLE: MAX47501AQ2CL, N, 1894 JF



North America
T: +1 845-679-1361
F: +1 845-679-1870

United Kingdom
T: +44 (0) 1932 765822
F: +44 (0) 1932 761098

Specifications subject to change without notice

Europe
T: +49 8145 951767
F: +49 8145 951768

Asia Pacific
T: +65 6484 2388
F: +65 6481 6588

Contact E-mail: mlinquiry@ametek.com

www.ametekaerodefense.com



Ordering Information

When ordering, please specify the specific Rotron part number listed on the model table below. Further ordering information, based on the configuration and motor series, may be obtained by contacting customer service. Please refer to the Unit Description Key explanation above.

Standard Product Offering of AC Line Powered Models

Part #	Product Description	Flow (CFM)	Max Pressure (IWG)	Nom. RPM	Nom. Watts	Line Amps (A)	Max Amb (C)	Weight	Volts	Phase	Hz	Capacitor	Airflow Source Data	Features
041155000	MAX57501 1953JF	680	14.0	11000	1385	5.1	60	8.3	200	3	400	N/A	A533-28	LEADS, FPS
035312000	MAX57500 1953JF	628	15.1	11000	1365	4.0	60	8.3	200	3	400	N/A	A440-4	CONNECTOR
035601000	MAX57500 2670WF	431	6.8	7500	382	1.6	60	8.3	200	3	400	N/A	A312-22	LEADS, FPS
035785000	MAX57503 2702JF	258	1.5	3230	147	1.0	100	6.7	115	3	60	N/A	A511-19	LEADS, FPS
035976000	MAX57515 3260JH	840	13.5	12	1456	6.1	75	7.5	200	3	400	N/A	A573-9	CONNECTOR
035953000	MAX57507 3664X7	1029	15.4	11500	1911	3.0	80	8.3	480	3	400	N/A	A629-14	LEADS, TP
041041000	MAX57502 2616JF	315	3.6	5540	173	0.8	100	6.7	230	3	400	N/A	A294-29	LEADS

Standard Product Offering of DC Line Powered Models

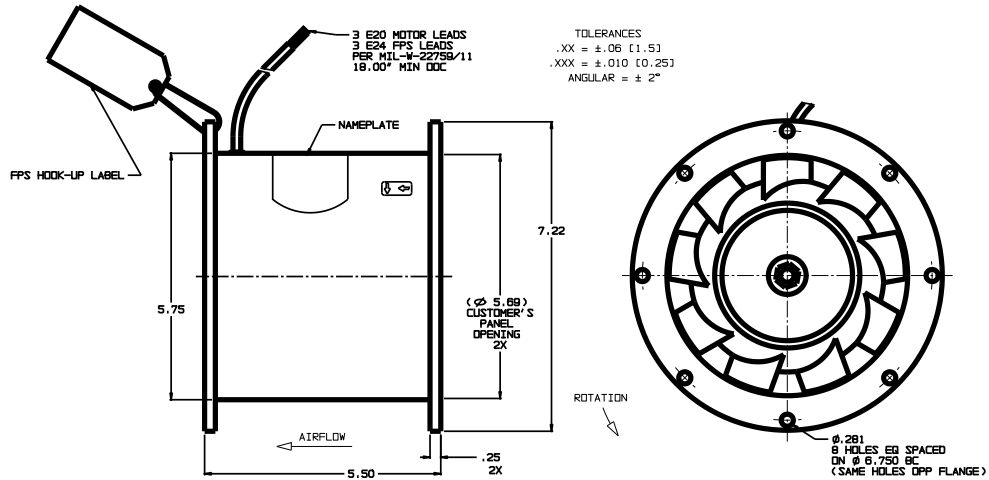
Part #	Product Description	Flow (CFM)	Max Pressure (IWG)	Nom. RPM	Nom. Watts	Line Amps (A)	Max Amb (C)	Weight	Volts	Airflow Source Data	Features
012270000	MAX57506 3259RF	990	13.0	10500	1793	64.0	70	11.4	26	A552-3	TERMINALS, C VALVE
011577000	MAX57512 3412SF	482	5.9	8200	448	16.0	85	8.0	28	A789-18F	LEADS, FPS
011780000	MAX57514 3674XF	511	6.6	8800	497	18.5	95	7.8	28	A694-20B	LEADS, FPS



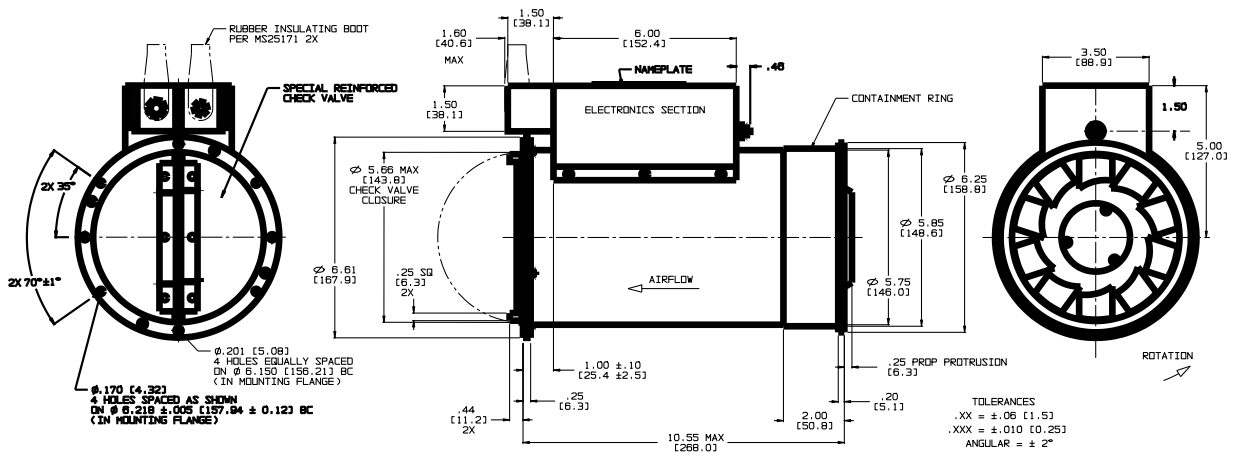
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MAXIAX 57500/01 – AC



MAXIAX 57506 – DC

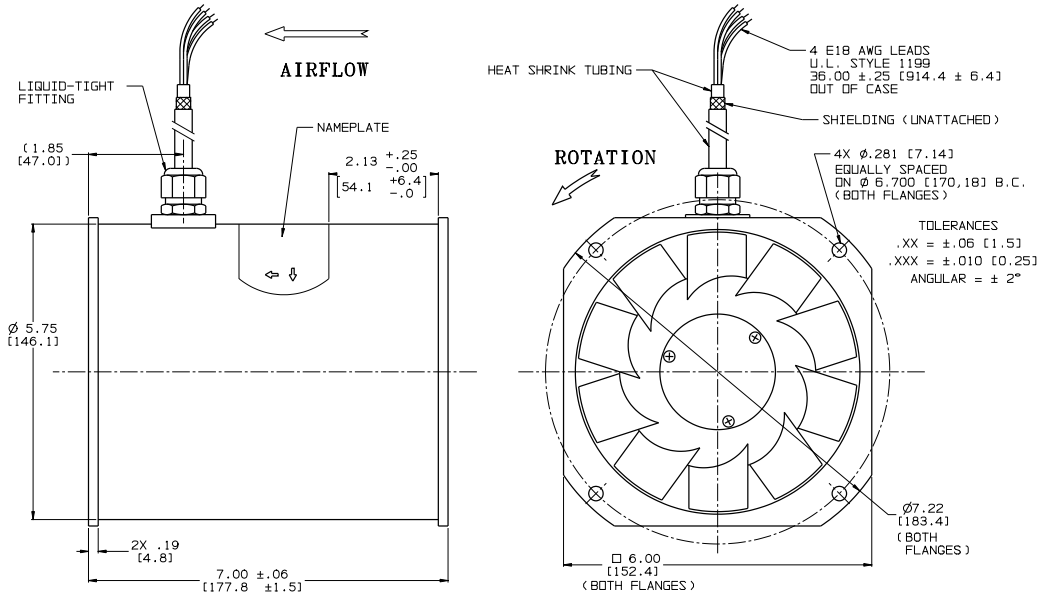




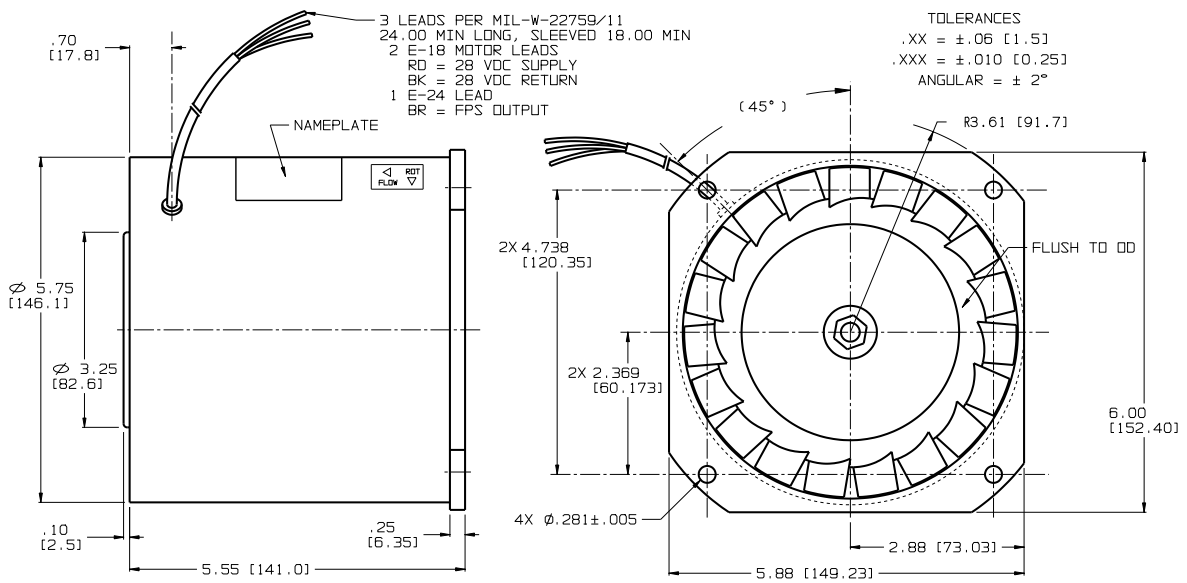
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MAXIAX 57507 – AC



MAXIAX 57512 – DC

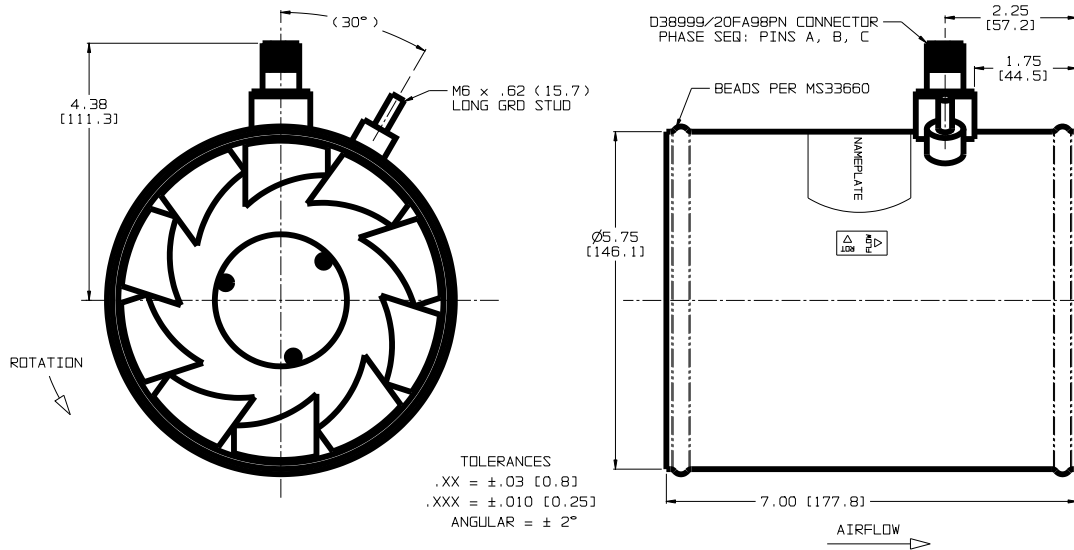




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MAXIAX 57515 – AC

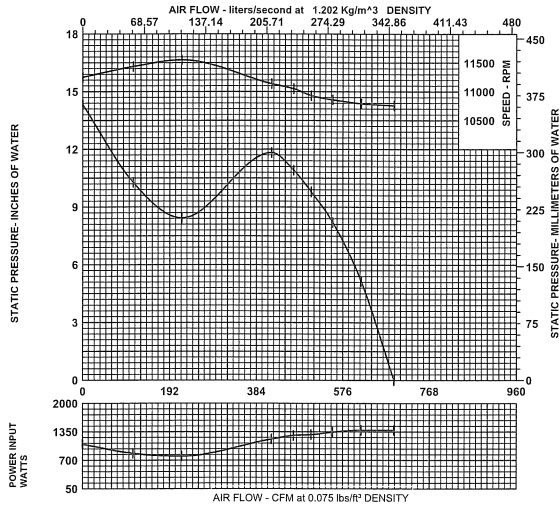




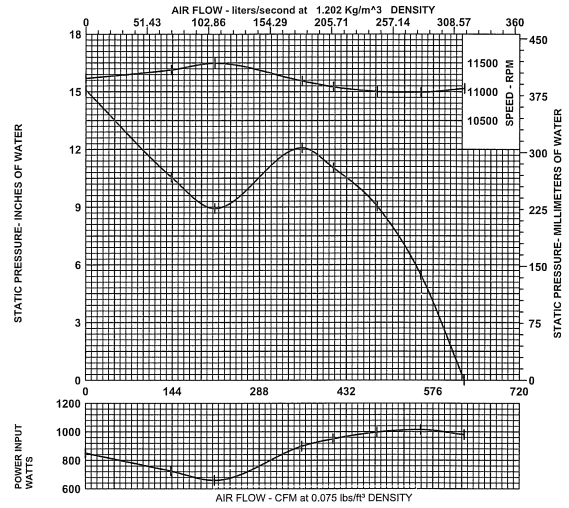
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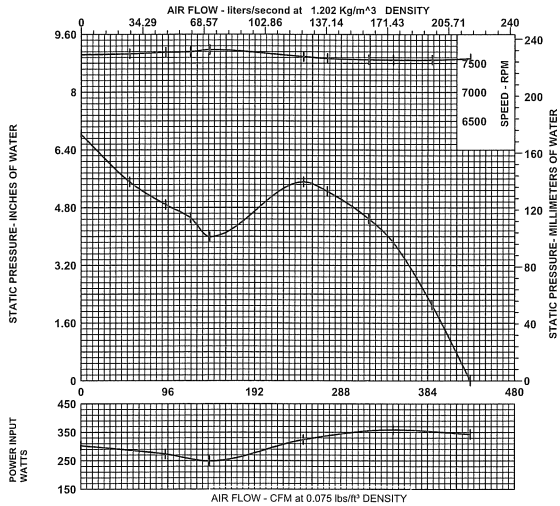
P/N 041155000 MAX57501 1953JF A533-28



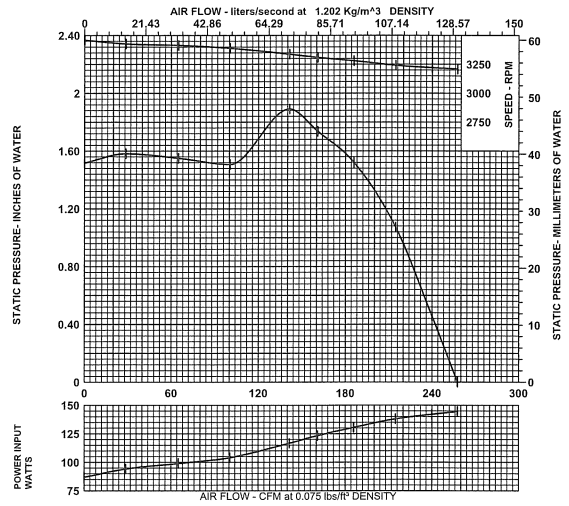
P/N 035312000 MAX57500 1953JF A440-4



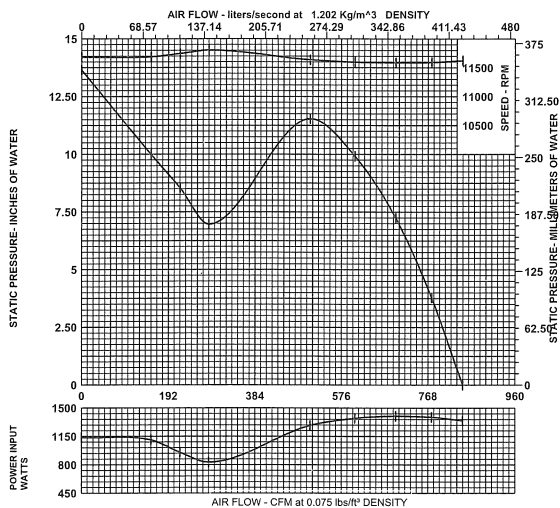
P/N 035601000 MAX57500 2670WF A312-22



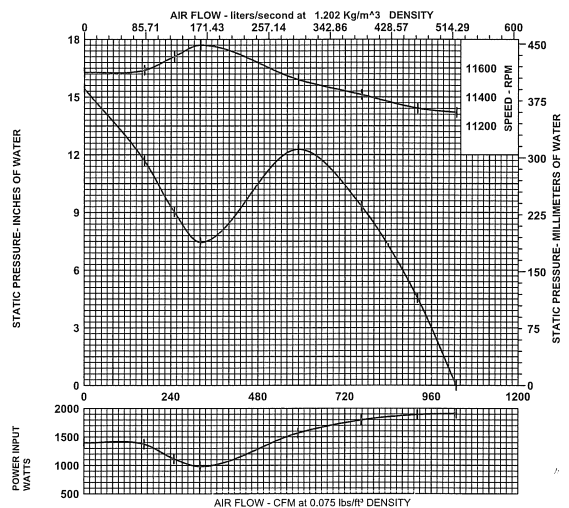
P/N 035785000 MAX57503 2702JF A511-19



P/N 035976000 MAX57515 3260JH A573-9



P/N 035953000 MAX57507 3664X7 A629-14

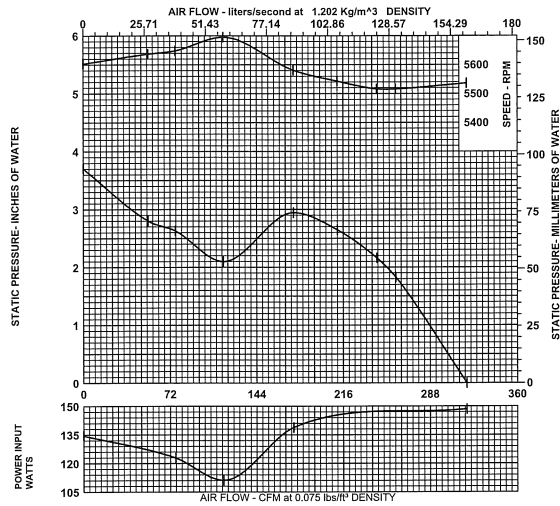




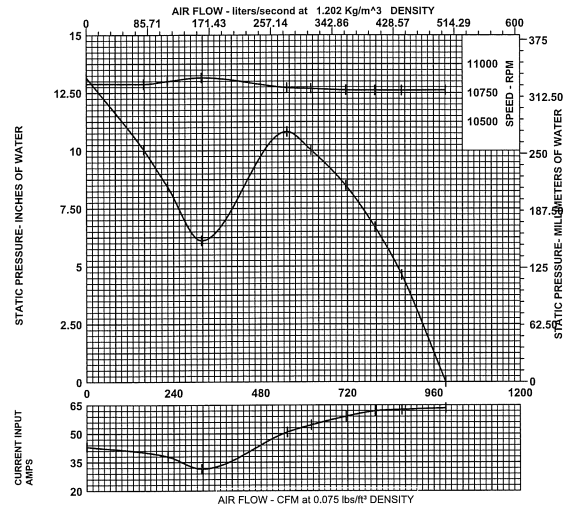
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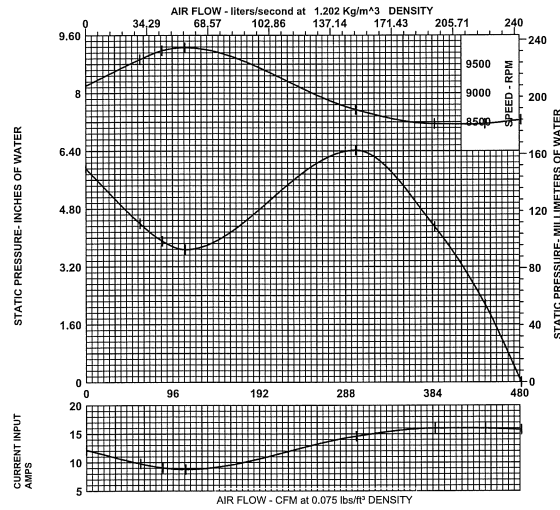
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P/N 012270000 MAX57506 3259RF A552-3



P/N 011577000 MAX57512 3412SF A789-18F



P/N 011780000 MAX57514 3674XF A694-20B

