

# ROTRON<sup>®</sup>

AC and Brushless  
DC Motors, Fans,  
Blowers, and  
Subassemblies  
for Aircraft



Business  
Jets



Regional  
Commuters



Civil  
Transports



Military  
Fighters/  
Trainers



Military  
Transports



Helicopters

**AMETEK<sup>®</sup>**

ROTRON  
MILITARY & AEROSPACE PRODUCTS

## Qualifications

### BUSINESS JET:

Boeing BBJ  
Canadair Challenger 601  
Cessna Citation X, Excel  
Cessna Citation Bravo, Ultra  
Dassault Falcon 10, 20, 50, 200  
Dassault Falcon 900, 2000  
Galaxy  
Gulfstream IV®  
Gulfstream V®  
Hawker Horizon  
Learjet 45, 60  
Raytheon Premier I

### REGIONAL COMMUTER:

ATR 42, 72  
Dehavilland Dash 8-300, 400  
Dornier 328  
Embraer EMB145  
Embraer EMB120  
Fokker 50, 70, 100  
Jetstream 41  
Saab 340, 2000  
Shorts 360  
British Aerospace Bae146

### CIVIL TRANSPORT:

Airbus 300-600, 340-2/300  
Boeing MD80, 88, 90  
Boeing B717  
Boeing 737, 747, 757, 767, 777

### MILITARY TRANSPORT:

Lockheed C-130, C-130J  
Lockheed C-5  
Alenia G-222

### MILITARY ATTACK/FIGHTER:

Boeing AV-8B, F-15, F-18  
Eurofighter EF2000  
Lockheed F-16, F-22, F-117  
Mitsubishi/Lockheed F-2  
Northrop B-2  
IAI Rafael  
Alenia/Aermacchi/Embraer AMX  
Dassault Rafale

### HELICOPTER:

Agusta A109  
Bell 222, 407, 430  
Boeing MD900  
Boeing AH-64 Long Bow  
Eurocopter Tiger  
Sikorsky S-76, S-92  
Sikorsky RAH-66, UH/SH/MH-60  
EH Industries EH101  
Mitsubishi MH-2000

# Products

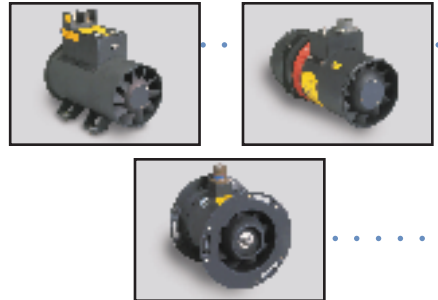
## SMALL VANEAXIAL & TUBEAXIAL FANS

- Generates static pressure with high speed in small lightweight packages
- Highly reliable inverted motor/bearing system, a *Rotron original*
- Most commonly used for cooling avionics boxes or localized hot spots



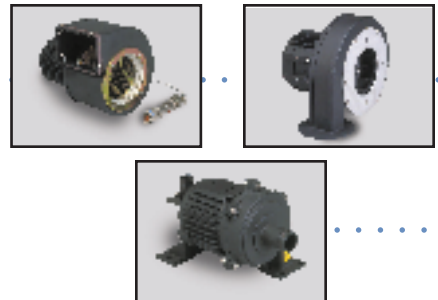
## LARGE VANEAXIAL FANS

- Generates high air flow and static pressures in small lightweight packages
- Best choice for maximum performance in the minimum space, AC or Brushless DC
- Usually duct mounted in aircraft for avionics and cabin environmental system ventilation



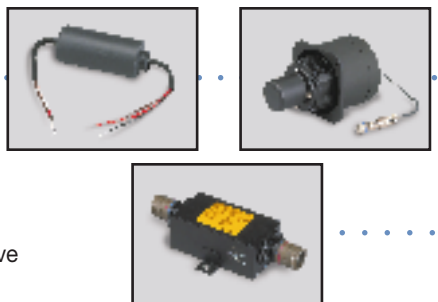
## CENTRIFUGAL & RADIAL BLOWERS

- Generates high static pressure in the low airflow ranges
- 90 degree flow path offers an alternative to axial flow fans
- Used for avionics cooling and air sampling



## ELECTRONIC & FAULT DETECTION DEVICES

- EMI Filters to meet DO-160 and MIL-STD-461 requirements
- Low Speed Warning Detectors for early warning fault detection
- Can be packaged in-line, integrated with motor drive electronics or externally
- Rectifiers and microprocessor based inverters for high voltage AC, including wild frequency, and DC applications



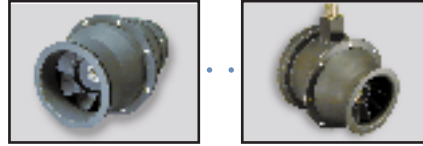
## MOTORS & DRIVE SYSTEMS

- AC 400 Hz motors drive our high speed fans on military and commercial aircraft
- Brushless DC motors provide reliable fan operation on business and regional aircraft
- Brushless DC motors feature electronic drive which offer enhanced motor speed control and fault output signals
- Programmable microprocessor based controls provide for customized interface options and rapid prototype performance adjustments
- High altitude performance motor

# Products

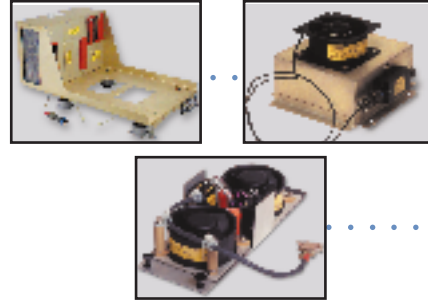
## MIXED FLOW VANEAXIAL FANS

- High performance for ducted air systems
- Maximizes stable aerodynamic operating zone for high resistance systems
- Combines high efficiency and low noise levels

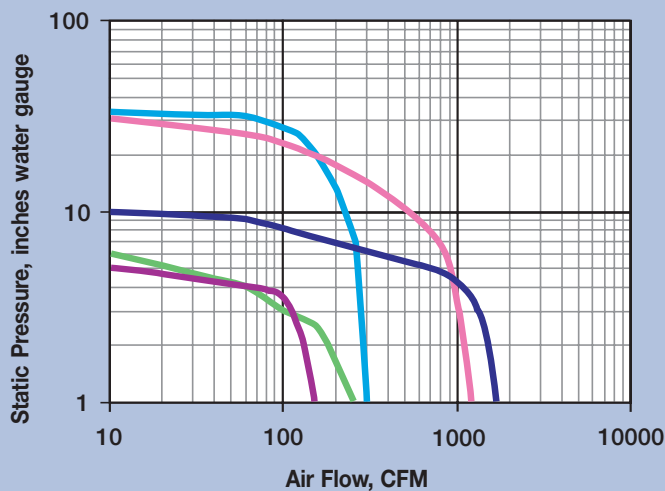


## SUBASSEMBLIES

- Customized cooling systems
- Integrate fans/blowers, motors, and heat exchangers into the next level of assembly
- Customized control for exacting performance
- Reduce part counts and administrative transactions



## Performance Envelopes



These envelopes represent the performance limits of our existing products. **AMETEK Rotron** continuously develops new products that expand these envelopes. For the latest capability of our products, please contact our Field Sales Engineers or our in-house Application Engineers.

- Centrifugal Blowers
- Large Vaneaxial Fans
- Radial Blowers
- Tubeaxial Fans
- Small Vaneaxial Fans

## Typical Applications:

- Head-Up Display Cooling
- In-Flight Entertainment
- Avionics Cooling
- Environmental Control Systems
- In-Flight Entertainment Cooling
- In-Flight Phone Cooling
- Recirculation
- Windshield Rain Removal
- Baggage Compartment Cooling
- Smoke Detectors
- Display Cooling
- Target / Navigation Pod Cooling
- Camera Cooling
- Gasper Air
- Fuel Pump Motors
- Winch Cooling
- FADEC Cooling
- Engine Particle Separators
- Optical Sights
- Radio Rack Cooling
- Data Processing Computers
- NBC Protection

# Profile

## **AMETEK, Inc.**

AMETEK is a leading global manufacturer of electrical and electromechanical products for niche markets. Listed on the New York Stock Exchange (AME) since 1930, AMETEK's annual sales are approaching \$1 billion. Operations are in North America, Europe, and Asia, with about one-third of sales to markets outside the United States. AMETEK is serving its customers with investments in new products, global and market expansion, strategic acquisitions, and operational excellence. The Company's operating groups are Electronic Instruments and Electromechanical.

## **Rotron**

The Electromechanical Group (EMG) is one of the world's largest producers of high-speed electric motor products for original equipment manufacturers (OEMs). In business since 1915, EMG is using its core competencies to enhance its worldwide presence. A business unit of AMETEK EMG, Rotron has facilities in California, New York, North Carolina, and Ohio. Rotron serves the military, aerospace, medical, transportation, office equipment, industrial, and environmental markets worldwide. Rotron supports its customers with more than 650 employees that are organized in three business segments:

- Military & Aerospace Products
- Technical Products
- Industrial Products

## **Our Military and Aerospace Business Segment**

Founded in 1947 as Rotron, Inc., the Military & Aerospace Products business unit provides highly reliable AC and brushless DC motors, fans, blowers, heat exchangers and power conversion devices to military and aerospace customers around the world.

Rotron can provide cost-effective solutions that meet the specific needs of YOUR application by combining:

- Experienced in-house technical support staff and field sales force
- Broadest product line on the market
- Custom design capability
- Existing designs

*Please contact your local AMETEK field sales representative or the factory at:*



**ROTRON**

**MILITARY & AEROSPACE PRODUCTS**

### **WOODSTOCK FACILITY**

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