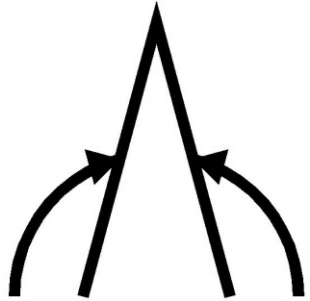


# DEFENSE



Air, Sea or Ground

**ARC Systems, Inc.** is there!

ARC Systems, Inc. is a leading supplier of AC and BLDC Motors and motion control components to the Defense Industry.

ARC Systems, Inc. has been producing quality motion control products for over 40+ years. At ARC, our engineers interact continuously with customers from concept through manufacturing solving technical issues. We support our capabilities with state-of-the-art computer aided design (CAD) system and proprietary magnetic design programs specifically developed at ARC. All of our employees are ambitious by taking on challenges and solving them through innovative ideas.

We have a vast library of proven designs along with a broad base of frame sizes and configurations of each product line. This along with our engineering and manufacturing experience enables us to respond quickly and reliably to any design specification. We have a strong reputation for nourishing relationships with our customers and their engineers.

ARC Systems, Inc. has an excellent reputation for quality, reliability, and service. All of our products are designed and manufactured in the USA. We are ISO 9001:2015/AS9100D certified. Basically, we match our component knowledge to our customers needs allowing a quality solution at a reasonable price.



# ARC's Systematic Design Process

CUSTOMER'S  
REQUIREMENTS



ENGINEERING  
DESIGN



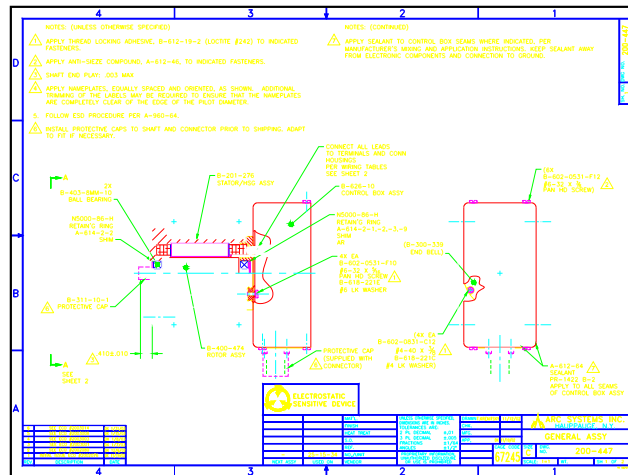
DESIGN  
VERIFICATION



- Concept Definition
- Requirements Established

- Magnetics Design
- CAD Design Layout

- Proto-type testing
- Qualification Testing



# ARC's Systematic Design Process continued

PRODUCTION

FINAL INSPECTION

SHIP



# Products and There Application

ARC is proud to be a supplier of AC and BLDC motion control products to all the ARMED Forces and many Governmental Primes.

Our company is responsible for hundreds of motor designs that operate critical systems on helicopters, planes, ships, and ground support equipment.

ARC's designs and assemblies are on many military and defense programs. We have the capability to design, package, and incorporate these components to meet all harsh environments.



ARC Systems manufactures a key component used on the **F-15 Fuel Measurement and Management Systems**. Our product plays a critical role and failure is not an option.



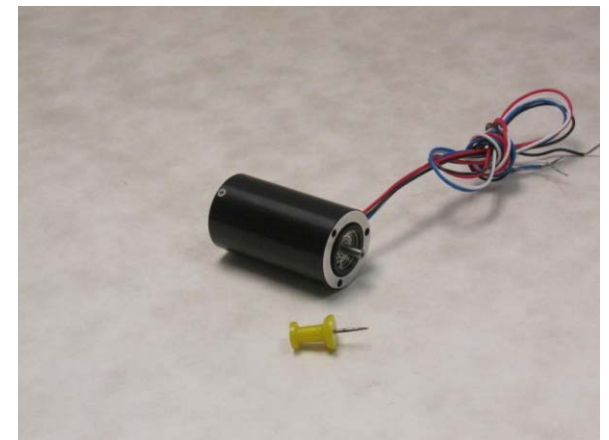
Fuel management is important to prevent imbalances caused by different fuel quantities in different tanks.



We also manufacture the **F-18 After Burner Motor**



An afterburner is an additional component added to jet engines, primarily those on military supersonic aircraft. Its purpose is to provide a temporary increase in thrust, both for supersonic flight and for takeoff. On military aircraft this extra thrust is useful for combat situations.





## ARC makes tachometers used on the **Bell Helicopter to measure Engine Speed**



Aircraft engine controls provide a means for the pilot to control and monitor the operation of the aircraft's power.

A tachometer is a gauge to indicate engine speed in revolutions per minute (RPM) or percentage of maximum.



## Some of our AC Induction motors are used on **Ammunition Handling Systems**



The compact autoloader is an all-electric, fully automatic ammunition handling system designed for easy integration into the weapon station



One of the RVDT components ARC Systems manufactures is used on the **Bradley Fighting Vehicle**. This component senses the transmission gear position.



The Bradley Fighting Vehicle was manufactured to help protect our troops.



ARC is proud to have a major component in the **Black Box Flight Recorder**

A cockpit voice recorder (CVR), often referred to as a "black box", is a flight recorder used to record the audio environment in the flight deck of an aircraft for the purpose of investigation of accidents and incidents





Some of our Induction Motor Gear Heads are used for platform elevators for military ground support maintenance/repair for Radars and Aircraft.



AC gear motors provide very high power transmission capability, torque multiplication, and speed reduction.



One of our Brushless DC motors is used on the **A400** for its electric winch system



The A400 is a large military transport plane used to get troops and supplies where they are needed. The planes electric winch system offers easy loading and unloading of equipment and supplies.



# ARC Systems designed and manufactured an AC Induction Motor with Brake used on the **H-92 Helicopter** to fold tail and rotor blades for storage



ARC Systems, Inc. offers High Performance Squirrel Cage Induction Motors with Integral Brakes and/or Gear Heads. These actuators are designed with High Energy Magnetic Laminations; these components exceed the most rigid performance requirements.



## We also manufacture Brushless DC Motors Used on Moving Antenna System for **B2 Bomber**



Brushless DC Motors offer exceptional performance and have the benefit of reduced maintenance since there are no brushes or commutators to replace.



# One of our Brushless DC Motor is Used on **RATTLRS** *RATTLRS* (Revolutionary Approach To Time Critical Long Range Strike)



**ARC Systems, Inc.** High Performance Brushless DC Motors is ideal for servo drives in motion control applications. Our designs feature high torque to inertia ratios. We have the experience and the engineering expertise to meet virtually any motion control application.

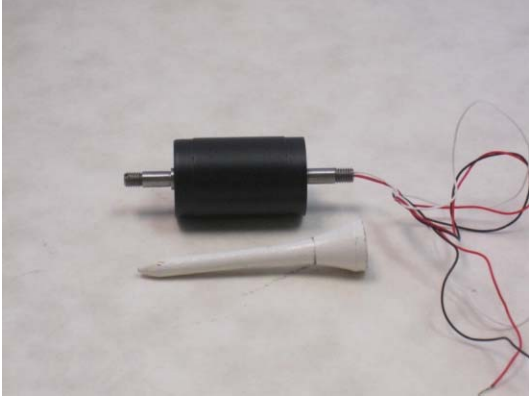


The **Falcon**, the fastest plane ever built has one of ARC's Brushless DC Motors.

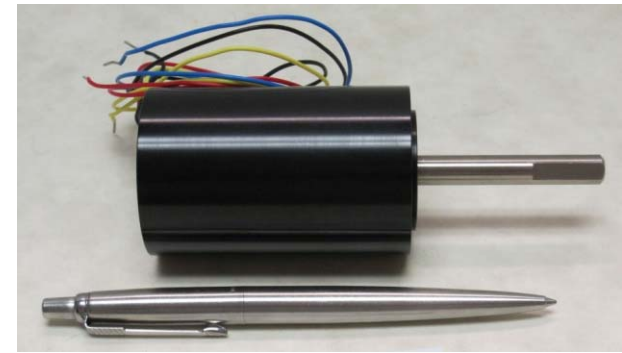
This aircraft would get from London to Sydney in less than an hour



ARC Systems, Inc. also manufacturers many different  
Motion Control Components  
Used for military planes in Gyro systems



Our AC Induction Motors are also Used in convection ovens on  
**C-130 & C-17** planes





# Some of our Motor Gear Heads

Are Used in Rheostat systems for military power sources



ARC Systems, Inc. has designed and manufactured hundreds of motors and components for the defense industry. Our products play a critical role in many systems. ARC's assortment of thousands of designs allow rapid design and proto-typing. Our technical capability has resulted in market leadership.

Over the past 40+ years, ARC Systems, Inc. has developed a reputation as a manufacturer whose people and products are at the forefront of the motion control industry.



# PROVEN PRODUCT IN:

- FLIGHT CONTROL ACTUATION SYSTEMS
  - ELECTROMECHANICAL ACTUATION
  - BLADEFOLD ACTUATION SYSTEMS
    - FUEL MANAGEMENT SYSTEMS
    - CARGO ACTUATION SYSTEMS
- AMMUNITIONS HANDLING SYSTEMS



ARC Systems, Inc. provides the complete support you need in today's competitive environment, from initial engineering development through after market. Contact ARC to assist you in your electromechanical motion control evolution.

**WHEN IT'S GOT TO BE RIGHT THE FIRST TIME....**

**CALL ARC SYSTEMS, INC.**



We are ISO 9001:2015/AS9100D certified, and our ISO 9001:2015/AS9100D procedures apply to all aspects of our organization. These procedures ensure that complete control is retained.

We are committed to providing our customers with Reliable, High-Quality Products, and service. We would be happy to discuss your needs at your convenience.

For more information and application assistance contact D. Kirk in our Engineering Department at: [dkirk@arcsystemsinc.com](mailto:dkirk@arcsystemsinc.com)

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