WHEN PERFORMANCE
REALLY MATTERS

MOOG

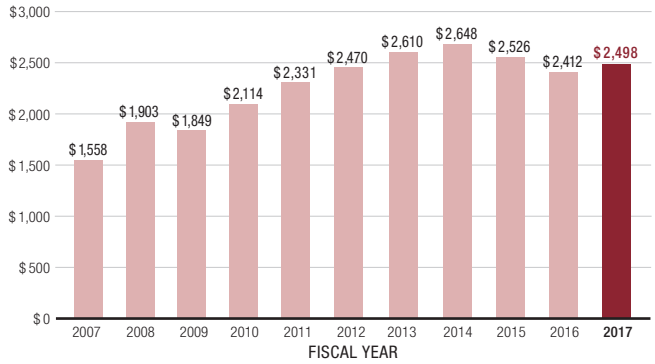
FINANCIAL HIGHLIGHTS

RECENT FINANCIAL PERFORMANCE
(Dollars and shares in millions, except per share data)

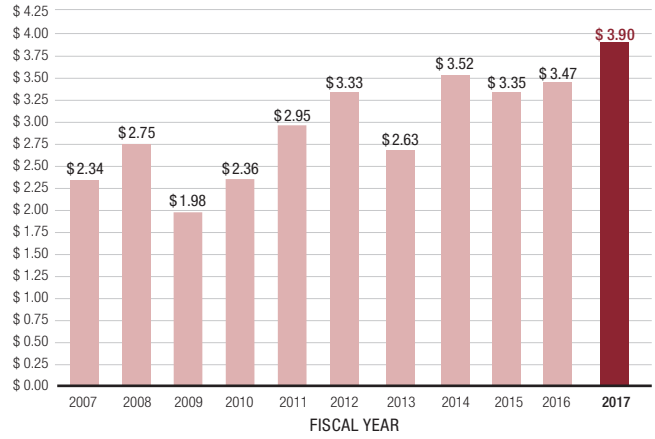
	2017	2016
NET SALES	$2,498	$2,412
NET EARNINGS	$141	$127
DILUTED EARNINGS PER SHARE	$3.90	$3.47
EQUITY MARKET CAPITALIZATION	$2,984	$2,136
AVERAGE SHARES OUTSTANDING	36.2	36.5

Measured as of fiscal year end

SALES (Dollars in millions)

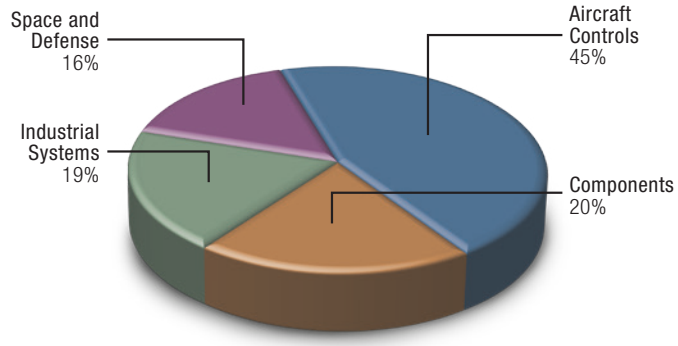


DILUTED EARNINGS PER SHARE (In dollars)

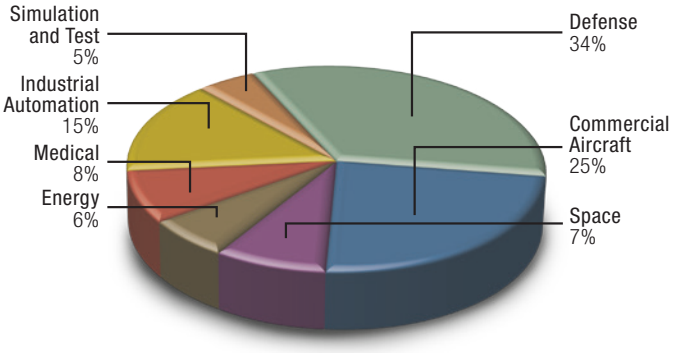


Financial results for fiscal year 2017 are available in Moog's 10-K. The report was filed on November 13, 2017, pursuant to Section 13 OR 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended September 30, 2017, and can be viewed at www.moog.com/10-K.

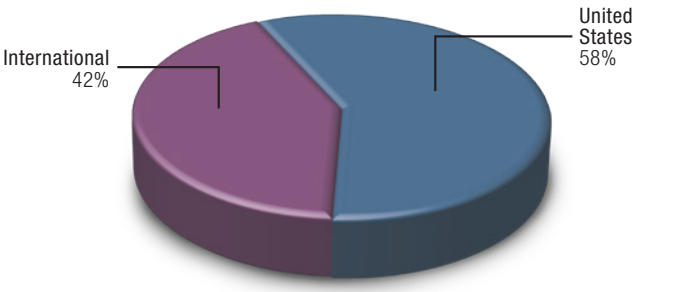
REVENUE BY SEGMENT



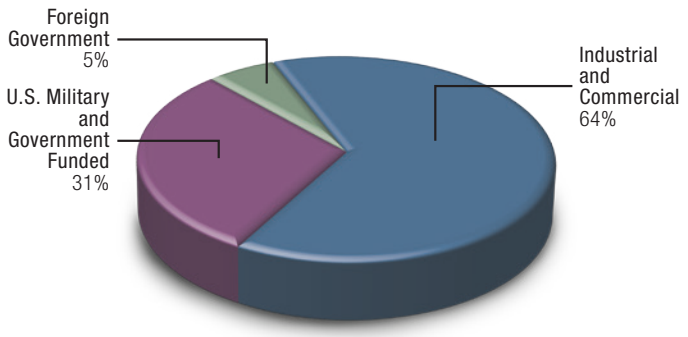
REVENUE BY MARKET



REVENUE BY GEOGRAPHIC DISTRIBUTION



REVENUE BY MARKET DISTRIBUTION



CHAIRMAN'S LETTER

To Our Shareholders, Employees and Friends,

I'd like to open my annual letter, as I do each year, by paying tribute to all our Moog employees around the globe for their dedication and commitment. We are a company with outstanding products and technologies, but, in the end, it is our people that make us a success.

2017 in Review

2017 was a good year for our company. Sales were up 4%, earnings per share were up 12% and we had a fifth consecutive year of strong cash flow. We marked another set of milestones on our twenty-year journey to become the world leader in flight control systems. During our fiscal year we watched the first flights of the Airbus A350-1000, the Embraer E195-E2, the Boeing 787-10 and the Comac C919. In September, the Boeing 787 celebrated its one millionth flight – all safely completed with Moog flight controls.

We enjoyed organic growth in most of our businesses in 2017. Our commercial aircraft business was up nicely, our defense businesses improved and our oil-related businesses stabilized. We experienced some challenges in our industrial businesses outside the U.S., but, as the year closed, we started to see the order book firm in these markets.

Over the course of the year, we continued to shape our portfolio for the future, divesting our European Space facilities and selling off a non-strategic product line we acquired as part of our additive manufacturing acquisition. Conversely, we acquired Rotary Transfer Systems, an investment that strengthens our industrial slip ring business in Europe.

Operating Segment Review

2017 was a strong year for our aircraft business. Sales were up 6% with increases in both our military and commercial markets. Growth continues to be fueled by the volume ramp on our major programs, the Lockheed Martin F-35 and the Airbus A350.

Space and Defense sales were up 8% from last year. Defense sales were up sharply as a result of record shipments of components for military vehicles. Space sales were up organically on strong demand for spacecraft avionics.

Industrial sales were 7% lower than last year. Sales into our energy markets were down due to lower sales of wind pitch control systems while industrial automation sales were down across the broad range of markets we serve. Test & simulation sales were up marginally over last year.

Components sales were up 7% from last year. About a third of the increase was due to the acquisition of Rotary Transfer Systems. The rest of the increase was shared across many of the markets we serve, with particularly strong sales of medical pumps and sets.

2018 Outlook

Our guidance for 2018 builds on a strong 2017. We are optimistic that we'll see organic growth in each of our major markets and a commensurate growth in earnings per share. As we head into this new fiscal year, we have reorganized our Components segment into its two major markets – Aerospace and Defense (A&D) and industrial – and have aligned these markets within the segments that serve similar customers and applications. We are integrating the A&D products into our Space and Defense segment and the industrial products into our Industrial Systems segment. There is no change to our Aircraft Controls segment. The 2018 segment comparisons discussed below capture the reclassifications of prior years' numbers such that they are apples-to-apples.

Aircraft Controls segment sales will increase 4% in 2018 as the F-35 program continues to ramp up and our military aftermarket recovers. On the commercial side, we'll see higher Boeing 787 and Airbus A350 OEM sales offset by lower production rates on our legacy Boeing programs and a softer initial provisioning of spares in aftermarket sales.

Space and Defense segment sales will increase 3% with higher space sales on launch vehicles and satellite avionics. Defense sales will be up marginally with higher missiles and security sales compensating for lower military vehicle sales.

Our Industrial Systems segment has four major markets, energy, industrial automation, simulation & test and medical. We are anticipating single digit organic sales growth in each of these major markets resulting in 6% growth for the segment.

Reflections on the A&D Market

2017 was a year of significant upheaval in the broad Aerospace & Defense market. Mid-sized suppliers combined with each other and mega-suppliers emerged to challenge the balance of power of the primes. In response, the primes started to collaborate in ways not seen before and chose to go vertical in select areas in their search for growth and returns. Amidst all this consolidation, we have been asked if smaller, specialized players like Moog can continue to prosper. We believe we can. We are convinced that the strength of the aerospace industry is based on a vibrant supply chain eco-system that provides competition and alternatives for our customers. In our view, value is created through specialization and performance. We have worked to become the leading supplier of flight control systems by delivering superior performance for our customers' most critical applications. We think the consolidation around us could create new opportunities for Moog in providing an alternative, specialized source to the mega-suppliers. We have seen waves of change in the industry before, and each time we have followed our strategy of working closely with our customers to solve their most difficult technical challenges. We follow through on our commitments and create value through superior engineering. We believe there is always opportunity in the aerospace eco-system for a company like Moog.

Longer-term Outlook

Looking out a few years beyond 2018, we are optimistic about our prospects. In our largest market, defense, the recent tide of shrinking budgets is changing as the U.S. and its allies work to rebuild their capabilities in the face of evolving global threats. Defense is about one third of our sales. Our largest program, the F-35 Joint Strike Fighter, is projected to continue growing and we are working on many new development programs which should turn into production in the medium term. Commercial aircraft

CHAIRMAN'S LETTER (CONTINUED)

represents about a quarter of our sales and all market studies predict it will continue at a strong pace. Internally, as our R&D load shifts from commercial to funded military jobs, and our execution on new programs continues to improve, we should see consistent margin expansion in our Aircraft segment. Our industrial automation businesses make up about one fifth of our sales. These businesses are broadly driven by the global capital investment cycle and as GDP has accelerated in our key markets over the last few years, capital investment has started to follow. Our remaining three markets are energy, space and medical, and each represents less than 10% of our sales. Energy could continue to be a challenging market for us, but there are signs that the price of oil is creeping back up to a level where offshore investment may pick up again. In space, the Ground Based Strategic Deterrent program (GBSD), the replacement for the Minuteman missiles, remains our long-term priority. And in medical, we are investing in next generation pumps which should help us continue to win market share.

Apart from our established end markets, there will be many new opportunities for Moog in the coming years as demand for advanced motion control grows. The world is watching robots slowly emerge from the secure environment of the factory floor and interact with people in unstructured settings. We are seeing the emergence of autonomy in everything that moves – from submarines to cars to airplanes. We are witnessing a new generation of advanced automation solutions tackle the demographic challenge of insufficient skilled labor across multiple industries. We are entering a golden age of automation – where ever-more advanced motion control systems will be incorporated into applications from agricultural equipment to surgical procedures. Moog has all the capabilities to be a major player in this new world. In addition to the underlying motion control technology and components, we have deep expertise in high-reliability systems from our work on flight critical systems. Moreover, we have the culture and the commitment to bring all of our capabilities together from across our organization to forge new end markets. In this exciting environment, we are investing our innovation dollars carefully in new business opportunities. We define innovation as any activity that creates value for a customer. We are working with lead customers who have real technical problems they are trying to solve. We are building a portfolio of options knowing that only some will turn out to be real winners. It is an exciting time to be in the advanced motion control business.

Special Thanks

Dr. Richard Aubrecht has served in a variety of roles during his 46 years with the Company. Currently, Dick is our Chief Technology Officer, a Director and our Vice Chairman. It is with admiration and sadness that we bid Dick farewell as he retires in February 2018. Dick's contributions over the years have been immeasurable. His steadfast focus on hiring the best engineering talent, his sustained efforts to maintain a culture and environment in which that talent could excel, and his emphasis on strategic planning are most notable. We wish Dick many healthy years of sailing and I personally thank him for all of his contributions.

Conclusion

Our traditional markets are healthy and growing. We are also seeing exciting opportunities emerge in markets that aren't yet defined. They say that the pace of change is ever accelerating, and companies must change to keep up. We agree, but we also think some things must remain constant in the face of change:

- Our commitment to solving our customers most difficult technical challenges;
- Our commitment to investing for the long-term to find tomorrow's customers;
- Our culture of collaboration, trust and integrity in everything we do;
- Our focus on creating long-term value for our shareholders.

In 2018, we'll continue to invest our energies and talents in serving our customers and building for the future. I plan to come back to you next year to report on another successful year for our Company.

Respectfully submitted,

John Scannell
Chairman and Chief Executive Officer

Corporate Officers

Mark J. Trabert
President
Aircraft Controls

Maureen M. Athoe
President
Space and Defense

Richard A. Aubrecht
Director
Vice Chairman of the Board
VP – Strategy and Technology

Donald R. Fishback
Director
Vice President
Chief Financial Officer

R. Eric Burghardt
President
Aircraft Controls

Patrick J. Roche
President
Industrial Systems

Lawrence J. Ball
President
Components

Gary A. Szakmary
Vice President
Chief Human Resources Officer

2017 SEGMENT HIGHLIGHTS

Boeing 787-9

Aircraft Controls

Moog and Air China signed a 10 year exclusive contract for comprehensive support of the Moog flight controls on Air China's fleet of Boeing 787 aircraft.

Embraer's E195-E2 celebrated its first flight on March 29th. The aircraft is the Brazilian manufacturer's largest commercial aircraft. Moog supplies the primary flight control system on the second generation of E-Jet family aircraft.

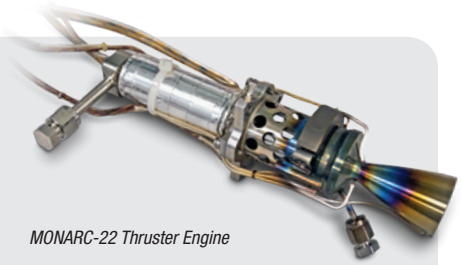
On March 31st, Boeing's 787-10 Dreamliner flew for the first time. The airplane is the newest and longest range model of the 787 family. Moog supplies the complete primary flight control system and the high lift system. The fleet of 787-8 and 787-9 Dreamliners in passenger service have flown over 1 million flights since entering service in 2011.

China's Comac C919 narrow body airliner made its first flight from Shanghai on May 5th. Moog manufacturers the high lift system on the C919. First delivery is scheduled for 2020.

Moog and Singapore Airlines Engineering Co. formed a joint venture company, Moog Aircraft Services Asia, located in Singapore. This joint venture provides maintenance, repair and overhaul services for Moog manufactured flight control systems fitted to new generation aircraft including the Boeing 787 and Airbus A350.

The Company broke ground on a new 95,000 square foot Aircraft Controls segment facility, located on Moog's campus in Elma, New York. The facility will support contracts connected to the U.S. Military's F-35 Joint Strike Fighter and the Airbus A350 commercial airplane.

Space and Defense



MONARC-22 Thruster Engine

Moog was selected to provide 75 MONARC-22 thruster engines for the second generation of six Meteorological Operational (MetOp-SG) satellites to be built by Airbus. Moog has been a trusted propulsion component supplier to Airbus for over thirty years.

NASA's NICER mission payload was installed on-board the International Space Station. Moog provided tuned mass dampers, the main electronics box with GPS and gimbal controller electronics and the deployment and pointing system for the science payload that will study neutron stars.

Moog's Naval Systems business unit was honored with a Supplier Quality Award from Raytheon Integrated Defense Systems (IDS) for the second consecutive year. The Moog team received the award for quality and delivery performance in the top 5% of all Raytheon IDS Suppliers.

Moog was awarded follow-on low rate initial production contracts with both Northrop Grumman and Saab Defense and Security USA to support the U.S. Marine Corps Ground/Air Task Oriented Radar (G/ATOR) program. Moog's six-axis motion control system levels the platform and elevates and rotates the radar array.

In Niagara Falls, New York, Moog's 87,000 square foot manufacturing and test facility is being upgraded to support Moog's growing space propulsion business with multiple vacuum chambers to simulate conditions in space.

High-Pressure RKP Pump

Industrial Systems

Moog launched a new high-pressure Radial Piston Pump (RKP) series. Certified for use hazardous environments, these rugged pumps feature quiet and low-vibration operation and are suitable for use in a wide range of applications including presses, metal forming and heavy industries.

The Industrial segment was chosen by the Technical University of Denmark (DTU) as their prime supplier of test equipment and services for its Large Scale Test Facility. The test facility at DTU's Risø Campus is purpose-built for static and dynamic tests of wind turbine blades.

Moog Industrial launched a Return-to-Productivity program to give industrial machine owners and operators with Moog servo and proportional valves the option to restore their worn valves to like-new condition, with a renewed warranty. The program offers customers global support and the highest quality repair services.

Components

The Components segment acquired Rekofa, a global rotary transfer systems business, from Morgan Advanced Materials. Rekofa designs and manufactures a portfolio of electromechanical systems for the transfer of current, signals and data in rotating devices and structures. The technology can be combined to include electrical, pneumatic, hydraulic and multi-channel fibre optic transfers and is typically used in tower cranes, radar systems, wind turbines, automotive and construction equipment.

Slip Ring with Hybrid Technology

AIRCRAFT CONTROLS

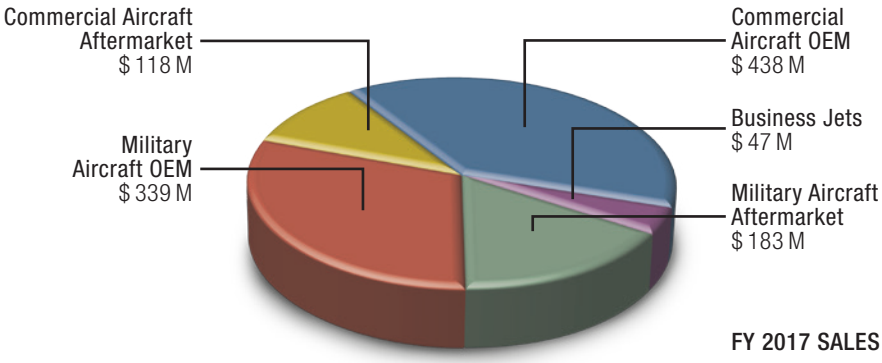
Our broad technology portfolio and collaborative customer relationships deliver high value-added, tailored solutions to commercial and military customers.

Product Portfolio

- Flight control computers and flight-critical software
- Primary and secondary flight control actuation – all technologies
- High lift/flap actuation systems
- Specialty actuation systems
- Critical control components

Competitive Advantages

- State-of-the-art technology and intellectual property in flight controls, engine controls, door drive controls, active vibration controls and engineered components
- Critical component knowledge
- Complete flight control system design and integration capability
- World-class manufacturing facilities and skilled, experienced, team-based workforce
- Focused, highly-responsive global aftermarket support organization



FY 2017 SALES – $ 1,125 M

Cold Spray Technology

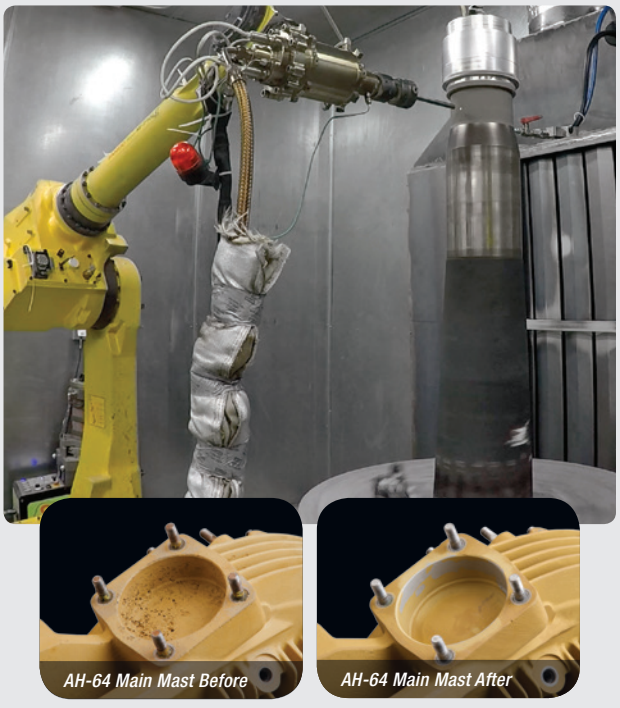
Corroded and damaged parts require special repair solutions when replacements are scarce, expensive or have long lead times. Cold spray is an innovative additive manufacturing process that uses metal powders accelerated to supersonic speeds to restore a part's original substrate – without inducing thermal stresses.

Moog has worked with the US Army Research Lab (ARL) to develop, qualify and certify cold spray repairs for fixed and rotary aircraft components. Two state-of-the-art U.S. located Moog facilities offer cold spray technology on hard-to-repair magnesium and aluminum parts. Our engineers successfully repair corroded areas and wear-damaged surfaces including transmission gearboxes, sump housings, engine components, flap transmission housings, nose wheel steering actuators and landing gear components.

Significant Total Cost Savings

- Repair versus replacement saves inventory and total sustainment costs
- Repair lead times can be substantially less than lead times for new components
- Repairing defects versus scrapping newly manufactured parts improves production yields

Moog's nickel cold spray repair for the Apache AH-64 helicopter main rotor mast enables the U.S. Army to recover worn or corroded masts by repairing them to meet original specifications. Cold spray repair of damaged, worn or corroded cast magnesium housings prevents scrapping long lead procurement and high replacement cost components.



AH-64 Main Mast Before

AH-64 Main Mast After

Military Aircraft

F-35, F-15, F/A-18E/F, EA-18G, F-16, KC-46, A400M, Korea KFX, Korea T-50, C-27J, C-295, CN-235, Eurofighter-Typhoon, JAS 39, India LCA, Japan XC-2, XP-1, Hawk AJT, M346

Military and Commercial Helicopters

H-60/S-70, H-53, EH-101, S-76, S-92, V-22, V-280, AH-64, A109, A129, AB139, AW159, AW609, Future Lynx, B525

Commercial Airplanes

Boeing 737, 747, 767, 777, 787, Airbus A320, A330, A350, A380,
Embraer E-Jets E2, COMAC C919

Business Jets

Bombardier Challenger 300, 604, 605 and Global Express, Cessna Citation X, Gulfstream G280, G350, G400, G450, G500, G550, G600, G650

Customer Support

All current production programs above plus legacy programs including A-7, A-10, A300, A340, AH-64, AMX, B-1B, B-2, B-52, BAE-146, C-5, C-130, C-141, CH-46, CH-47, CH-53, DC-8, DC-9, DC-10, E-2C, EA-6B, F-2, F-4, F-100, F/A-18C/D, F/A-22, Hawk, KC-10, KC-135, MD-11, MD-80, MD-90, P-3, T-45, Tornado, U-2, VC-10, 757

F-35A Lightning II
Courtesy of U.S. Air Force / Tech. Sgt. Brandon Shapiro

MV-22 Osprey
Courtesy of U.S. Navy / MC Spec. Seaman Vance Hand

Embraer E195 E2
Courtesy of Embraer

Boeing 787-9
Courtesy of Suparat Chairatprasert

Airbus A350-1000
Courtesy of Airbus / S. Redier

Comac C919
Courtesy of Stefano Rizzi

SPACE AND DEFENSE

We provide reliable hardware, avionics, integration and launch support to the space industry, and components and systems that are critical to the U.S. war fighter and our global military allies.

Space Product Portfolio

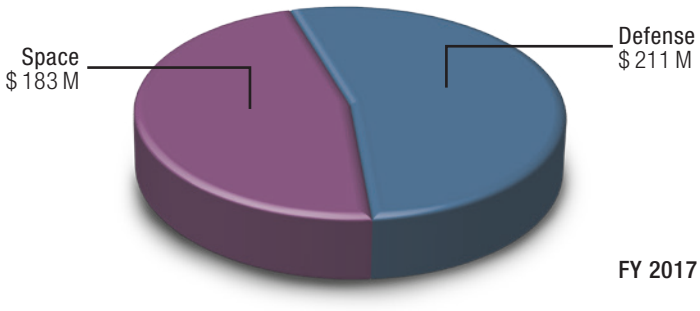
- Multi-tier provider capable of components, systems and prime level integration
- Thrust vector control and flight control actuation systems, avionics, propulsion controls and structures for missiles and launch vehicles
- Liquid rocket engines, tanks, chemical and electric propulsion systems, subsystems and components for spacecraft and launch vehicles
- Satellite integrated avionics, solar array drives, antenna pointing mechanisms and vibration isolation systems

Defense Controls Product Portfolio

- Fin actuation systems, divert and attitude control components for missiles and interceptors
- Weapon Stores Management Systems (SMS) and launchers for the deployment of missiles, guns and rockets
- Turreted weapon systems and precision motion control for gun laying / stabilization, ammunition handling and expeditionary radar deployment
- Electromechanical and electrohydraulic actuation products for naval ships and submarines
- Integrated counter unmanned aerial systems (C-UAS), sensor-based security systems and sensor positioning sub-systems

Competitive Advantages

- 65+ years of heritage with a world-class group of engineers, technologists and rocket scientists
- Success for military and space missions in a business built on strong customer relationships – translates decades of expertise and know-how into superior solutions
- A one-stop resource for space and defense actuation plus control electronics



FY 2017 SALES – $ 394 M

Space Rideshare Technology: The Moog ESPA

Moog rideshare components and systems enable efficient space access to small satellites and space based payloads.

Moog's ESPA, the Evolved Expendable Launch Vehicle Secondary Payload Adapter, utilizes a launch vehicle's excess capacity to mount additional spacecraft and payloads below a primary spacecraft. ESPA allows up to six secondary satellites, up to 322kg each, to ride along on launch vehicles with main payload large primary satellites. This reduces launch costs for all rideshare companions while offering space access to small satellites via EELV-class Atlas V, Delta IV, and Falcon 9 launch vehicles.

Extensive engineering analysis and a qualification test program demonstrated ESPA's ability to withstand harsh launch environments. Moog engineers provided the mechanical design, stress analysis and structural test engineering to offer the space industry a near off-the-shelf design enabling multiple different launch manifests.

The Moog family of ESPA Rings supports the entire spectrum of domestic and international satellites and launch vehicles. With roots in military space, we've capitalized on the growing rideshare market and we're an industry leader in rideshare hardware solutions.

Missions: STP-1, LCROSS, ORBCOMM Generation 2 (OG2), AFSPC-4 (GSSAP/ANGELS), DSX, EAGLE, SHERPA, SSO-A, LDPE

Satellite constellation installed onto the Moog ESPA
Courtesy of ORBCOMM

Space

Satellite Controls: LS-1300, Eurostar, Spacebus, LM A2100, DS-1000/2000, GEOStar, James Webb Space Telescope, GPS III, Galileo, ORBCOMM, NICER, SkySat, OSIRIS-REx

Launch Vehicle and Strategic Missile Controls: Trident D-5, Minuteman III, Antares®, Atlas V, Delta IV, Ariane 5, Vega, Minotaur, Falcon 9, NASA's Space Launch System and Orion, CST-100 Commercial Crew Vehicle, Sierra Nevada Dream Chaser®, International Space Station

Defense

Missile Systems: HELLFIRE®, TOW, Tomahawk, MALD, EKV, THAAD

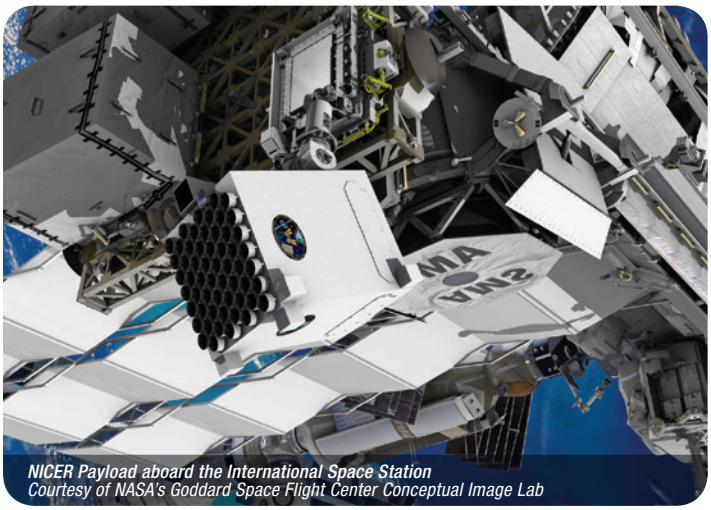
Defense Control Systems: Multi-Mission Launcher, LAV-25, LAV-AT, CV90 family, FLW 100/200 RWS, AC-130 Ghostrider, Littoral Combat Ship (LCS) MK46, G/ATOR Radar

Naval Systems: Virginia-class and Ohio-class submarines, USS Gerald R. Ford aircraft carrier

Sensor & Surveillance Systems: Mine Resistant Ambush Protection (MRAP), Ground Based Operational Surveillance System, Lite, RQ-7 Shadow

Reconfigurable Integrated-weapons Platform (RIwP) on M-ATV MRAP
Courtesy of Leonardo DRS

HELLFIRE® Missile on MH-60R Seahawk Helicopter
Courtesy of U.S. Air Force / MC Spec. Seaman Dylan M. Knee

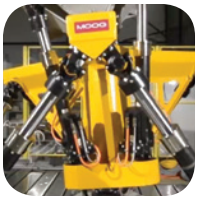


NICER Payload aboard the International Space Station
Courtesy of NASA's Goddard Space Flight Center Conceptual Image Lab

NASA GOES-R, Geostationary Operational Environmental Satellite
Courtesy of NASA

USS Washington (SSN 787), 14th Virginia-class Submarine, Quiet Actuation
Courtesy of U.S. Navy / Huntington Ingalls Industries, Matt Hildret

Space Launch System (SLS), Orion Multi-Purpose Crew Vehicle
Courtesy of NASA



INDUSTRIAL SYSTEMS

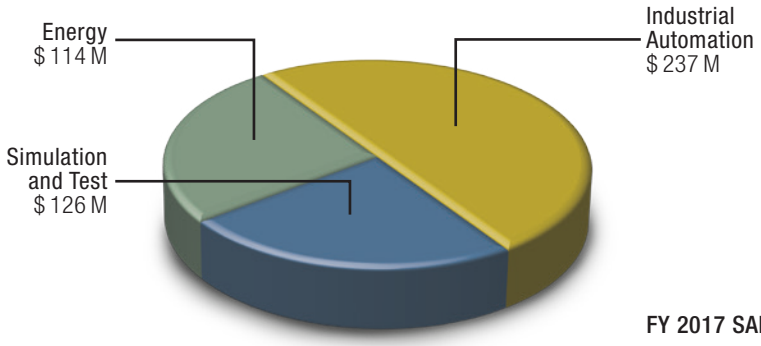
We create a competitive advantage for our customers by providing unique motion control solutions.

Industrial Product Portfolio

- Electric servo motors and electric actuators for light industrial automation to large machinery applications
- Controllers, servo drives and software for a broad range of motion control applications
- Hydraulic servovalves, ranging from miniature valves for Formula 1™ race cars to large valves for industrial applications including valves with embedded intelligence
- High-performance servo pumps for a wide range of high-end industrial applications
- Electro-hydrostatic actuation systems for applications requiring high forces and energy efficiency

Competitive Advantages

- Global reach with sales, engineering and operations across 22 countries
- Engineering heritage with decades of motion control experience
- Significant domain expertise in our customers' machines, design challenges and industry applications
- Recognized brand in key markets with capabilities in actuation, sensing, data and power transmission
- Low to high volume manufacturing plus extensive off-shore partnerships



FY 2017 SALES – $477 M

Integrated Smart Actuator for Mobile Robotics Solutions

Moog's core products, designed for demanding applications, provide new control solutions for researchers, designers and manufacturers of mobile robotics. Mobile robotic applications demand low weight, small size and high-performance motion control technology. These solutions require ruggedness and the ability to operate in severe environments – including extreme temperatures and adverse weather.

Our new integrated, plug and play Integrated Smart Actuator (ISA) includes servovalves, control electronics, fieldbus communications and on-board sensors. Advances in additive manufacturing allow us to optimize weight and size while also providing customizable solutions quickly and affordably.

Sample Applications

- Robotics for unstructured environments and human-scale robotics
- Medical rehabilitation and prosthetics
- Autonomous vehicles

Designed by the Istituto Italiano di Tecnologia (IIT), based in Genova, Italy, the quadruped robot features a Moog miniature servovalve to optimize control of its legs. The HyQ robot, or Hydraulically-actuated Quadruped, was created to help humans in emergency situations and during search and rescue operations. HyQ can jump or walk on a rocky trail or along a corridor with V-shaped slanted sides, run at different speeds and adjust its speed in response to different environments.

HyQ Robot and Moog Integrated Smart Actuator

Industrial Automation

Plastic injection and blow molding machine products – hydraulic and electric, steel mill servo control products, metal forming machinery and press products

Energy

Wind turbine pitch systems and blade sensing systems, gas and steam turbine solutions, oil and gas exploration and production solutions

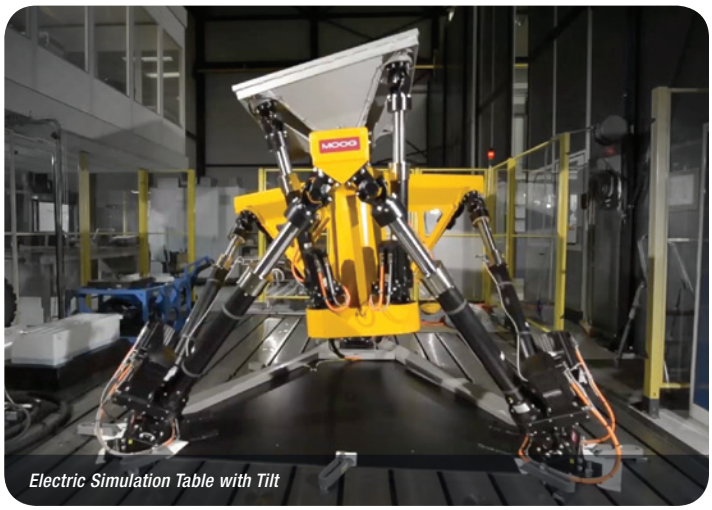
Simulation and Test

Flight simulation motion systems including control loading systems and control cabinets for realistic pilot training, automotive turnkey testing systems for component performance testing, aerospace turnkey testing systems for iron bird, structural and components

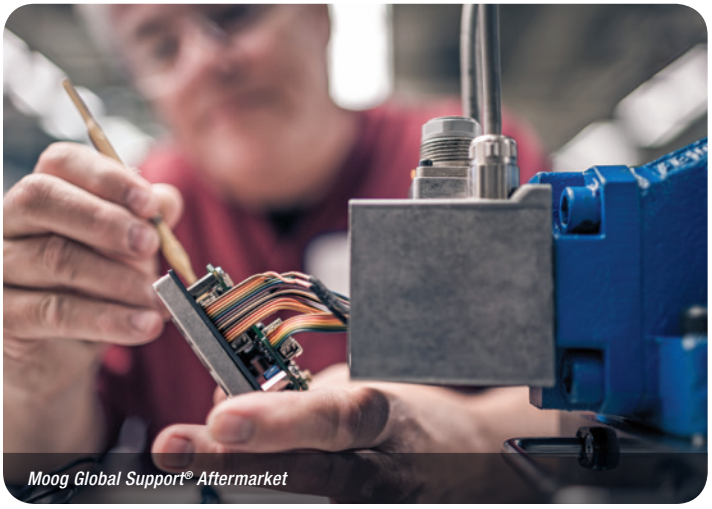
Full-flight Level D Simulator Motion System
Courtesy of CAE

Steam Turbine Controls
Courtesy of H. Dimyadi

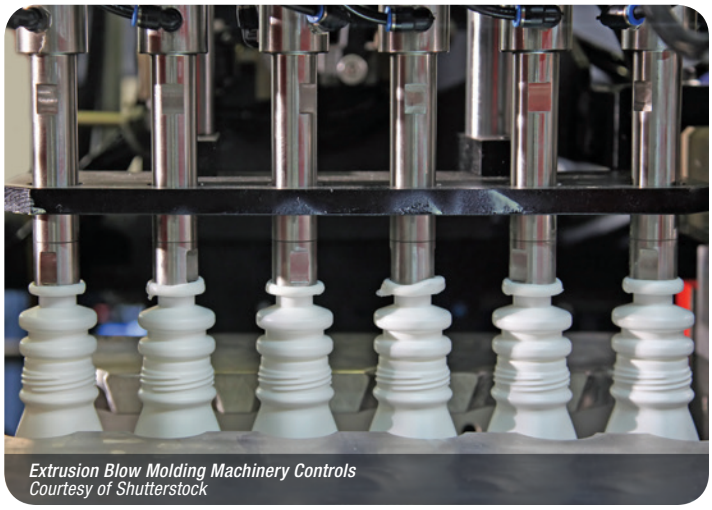
Oil and Gas Exploration and Production
Courtesy of Shutterstock



Electric Simulation Table with Tilt



Moog Global Support® Aftermarket



Extrusion Blow Molding Machinery Controls
Courtesy of Shutterstock

COMPONENTS

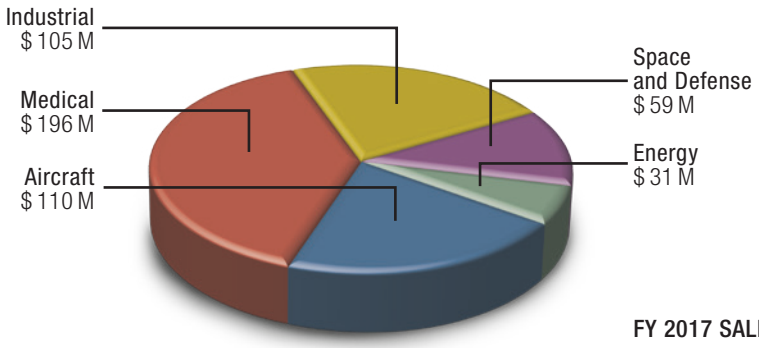
We're focused on engineering solutions for motion control, air moving, electronics and fiber optics.

Product Portfolio

- Slip ring assemblies for armored vehicles, pedestal turrets, radar and solar array drives, industrial automation and construction equipment
- Electro-optic/infrared sensors – motors, slip rings, integrated assemblies, Ethernet switches and gimbal assemblies for targeting devices
- Brush and brushless DC torque and servomotors and drives for industrial automation, material handling and medical devices
- Motors and blowers for sleep therapy, ventilators and portable oxygen concentrators
- Electronic ambulatory care infusion pumps and enteral nutrition feeding pumps
- Medical OEM air detection sensors and surgical handpieces
- EM servo and utility actuators for secondary flight controls, primary flight controls for Unmanned Aerial Vehicles (UAVs)
- Monitoring and explosion-proof slip rings for Floating Production, Storage and Offloading (FPSO) vessels
- Fiber optic rotary joints for Remotely Operated Vehicles (ROVs)
- Acoustic sensors, sonars and video cameras for subsea imaging and Remotely Operated Vehicles (ROVs)

Competitive Advantages

- Strong engineering heritage, multi-component and system level design experience and applications support
- Market leader in slip rings and fractional horsepower brushless DC motors
- Proven and uniquely versatile infusion and enteral pump technologies that advance patient care
- Market leader in marine slip rings, fluid power swivels and sonar imaging
- Global sales channels offering customers customization and low to high volume manufacturing



FY 2017 SALES – $ 501 M

Medical Computer Tomography (CT) Systems

CT scanners operate by rotating an x-ray tube and an x-ray detector array around the patient at rotational speeds of 120-280 RPM. A beam of x-rays is directed through the patient's body to be captured by the detector array for subsequent image creation. One of the key technologies behind the dramatic improvement in CT performance is slip ring innovation that enables increasingly improved images and diagnostic functionality. Moog works with many of key CT system manufacturers to provide reliable large-diameter slip ring solutions.

Error-free transmission of the image data from the x-ray detector array at data speeds of up to 20 Gigabit per second is the key element of CT slip ring design. Moog accomplishes this transfer with either optical or capacitive data channels. Electrical power of several kilowatts is transferred across sliding electrical contacts on a one-meter diameter ring at 200+ RPM using patented fiber brush technology.

Key Elements of CT Slip Ring Products

- High speed non-contacting data channel for image data (1-20 Gigabit/second)
- Contacting power rings for kilowatts of power
- Bi-directional communication channel for gantry control
- Specialized production for large diameter (1 meter) rings

Moog leads the way in developing innovative slip ring designs that improve the diagnostic capability and affordability of medical CT imaging.

Courtesy of Shutterstock

Large Diameter Slip Ring

Aerospace and Defense

Armored Vehicles: Abrams, Stryker, AJAX

Electro-Optics: MTS (Multi-Spectral Targeting System), LRSS (Light Armored Vehicle Reconnaissance Surveillance System), EOTS (Electro-Optical Targeting System)

Radar: EQ-36, Aegis Combat System, G/ATOR (Ground/Air Task Oriented Radar)

Industrial

Pumps and blowers, robotics, automated handling

Medical

Oxygen therapy, sleep therapy, computed tomography (CAT scan), IV pumps, enteral pumps, sensors, surgical handpieces

Energy / Marine

Remoted Operated Vehicles (ROVs), Floating Production Storage and Offloading (FPSO), wind energy turbines

Moog IV and Enteral Medical Pumps

Rotary Platforms-Construction Equipment
Courtesy of iStock

MQ-9 Reaper Multi-Spectral Targeting System (MTS)
Courtesy of U.S. Air Force / Staff Sgt. Brian Ferguson

M1 Abrams – Pedestal Turret Slip Ring
Courtesy of U.S. Army / Sgt. Todd Robinson

Floating Production, Storage and Offloading Vessel Mooring System (FPSO)
Courtesy of Neil M. Johnston

Packaging Equipment
Courtesy of Shutterstock

FINANCIAL REVIEW

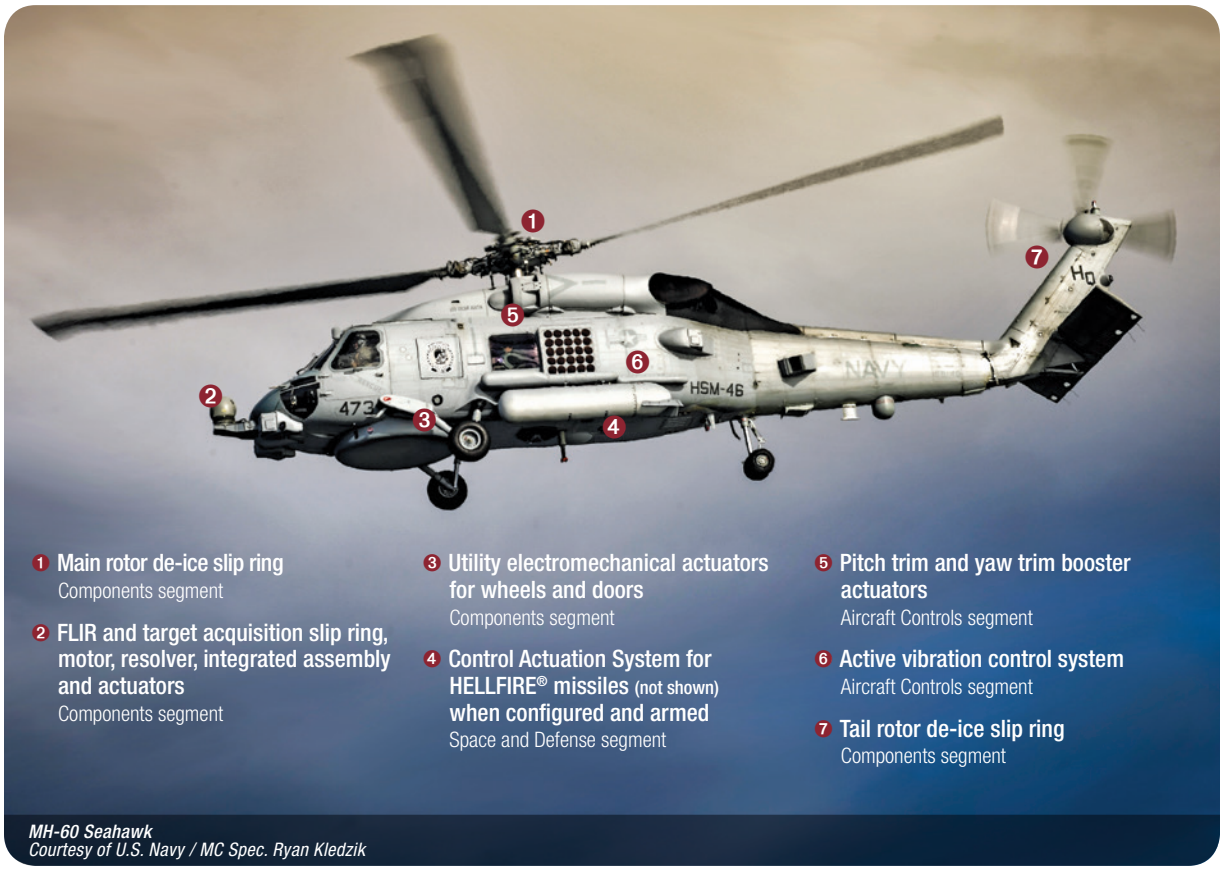
(Dollars and shares in millions, except per share data)

	2017	2016	2015	2014	2013	2012*	2011*	2010*	2009*	2008*	2007*
SEGMENT SALES											
AIRCRAFT CONTROLS	$ 1,125	$ 1,064	$ 1,087	$ 1,118	$ 1,060	$ 964	$ 850	$ 757	$ 663	$ 673	$ 587
SPACE AND DEFENSE CONTROLS	$ 394	$ 366	$ 381	$ 395	$ 396	$ 359	$ 356	$ 325	$ 275	$ 253	$ 185
INDUSTRIAL SYSTEMS	$ 477	$ 515	$ 522	$ 591	$ 592	$ 634	$ 629	$ 546	$ 455	$ 532	$ 436
COMPONENTS	$ 501	$ 467	$ 536	$ 545	$ 563	$ 514	$ 495	$ 487	$ 457	$ 444	$ 351
NET SALES	$ 2,498	$ 2,412	$ 2,526	$ 2,648	$ 2,610	$ 2,470	$ 2,331	$ 2,114	$ 1,849	$ 1,903	$ 1,558
EARNINGS BEFORE TAXES	$ 182	$ 173	$ 184	$ 219	$ 165	$ 209	$ 184	$ 149	$ 111	$ 168	$ 144
NET EARNINGS	$ 141	$ 127	$ 132	$ 158	$ 120	$ 152	$ 136	$ 108	$ 85	$ 119	$ 101
NET RETURN ON SALES	5.7%	5.3%	5.2%	6.0%	4.6%	6.2%	5.8%	5.1%	4.6%	6.3%	6.5%
EARNINGS PER SHARE											
BASIC	$ 3.94	$ 3.49	$ 3.39	$ 3.57	$ 2.66	$ 3.37	$ 2.99	$ 2.38	$ 2.00	$ 2.79	$ 2.38
DILUTED	$ 3.90	$ 3.47	$ 3.35	$ 3.52	$ 2.63	$ 3.33	$ 2.95	$ 2.36	$ 1.98	$ 2.75	$ 2.34
DILUTED WEIGHTED-AVERAGE SHARES OUTSTANDING (in millions)	36.2	36.5	39.3	45.0	45.8	45.7	46.0	45.7	42.9	43.3	43.1
RESEARCH AND DEVELOPMENT	$ 145	$ 147	$ 132	$ 139	$ 135	$ 116	$ 106	$ 103	$ 100	$ 110	$ 103
CAPITAL EXPENDITURES	$ 76	$ 67	$ 81	$ 79	$ 93	$ 107	$ 84	$ 66	$ 82	$ 92	$ 97
DEPRECIATION AND AMORTIZATION	$ 90	$ 99	$ 104	$ 109	$ 108	$ 101	$ 96	$ 91	$ 76	$ 63	$ 52
AT YEAR END											
TOTAL ASSETS	$ 3,091	$ 3,005	$ 3,037	$ 3,140	$ 3,151	$ 3,106	$ 2,843	$ 2,712	$ 2,634	$ 2,227	$ 2,006
WORKING CAPITAL	$ 997	$ 938	$ 931	$ 849	$ 834	$ 885	$ 834	$ 813	$ 764	$ 713	$ 617
INDEBTEDNESS	$ 957	$ 1,006	$ 1,070	$ 872	$ 706	$ 765	$ 725	$ 765	$ 833	$ 671	$ 618
SHAREHOLDERS' EQUITY	$ 1,214	$ 988	$ 995	$ 1,347	$ 1,536	$ 1,305	$ 1,192	$ 1,121	$ 1,065	$ 994	$ 877
RETURN ON SHAREHOLDERS' EQUITY	13.3%	12.6%	11.3%	10.4%	8.6%	12.1%	11.4%	9.8%	8.3%	12.7%	12.3%
SHAREHOLDERS' EQUITY PER COMMON SHARE OUTSTANDING	$ 33.94	$ 27.56	$ 27.09	$ 32.51	$ 33.86	$ 28.80	$ 26.38	$ 24.70	$ 23.53	$ 23.30	$ 20.63
BACKLOG (12 month)	$ 1,212	$ 1,225	$ 1,273	$ 1,340	$ 1,296	$ 1,279	$ 1,325	$ 1,181	$ 1,098	$ 862	$ 775
NUMBER OF FULL-TIME EMPLOYEES	10,675	10,497	10,691	11,031	11,152	10,976	10,320	10,117	10,005	8,844	8,364

** Not restated for Total Assets, Working Capital and Indebtedness*

Please Note: Amounts may not equal the total due to rounding.

OUR TECHNOLOGY



1. **Main rotor de-ice slip ring**
   Components segment
2. **FLIR and target acquisition slip ring, motor, resolver, integrated assembly and actuators**
   Components segment
3. **Utility electromechanical actuators for wheels and doors**
   Components segment
4. **Control Actuation System for HELLFIRE® missiles (not shown) when configured and armed**
   Space and Defense segment
5. **Pitch trim and yaw trim booster actuators**
   Aircraft Controls segment
6. **Active vibration control system**
   Aircraft Controls segment
7. **Tail rotor de-ice slip ring**
   Components segment

MH-60 Seahawk
Courtesy of U.S. Navy / MC Spec. Ryan Kledzik

Over the last 65 years, our engineers have developed the capability to design and manufacture the most advanced motion control products for aerospace, defense and industrial applications – applications where precise control of velocity, force, acceleration and fluid flow are critical. The Moog portfolio of products includes all forms of actuation technology, sophisticated control electronics and system software.

Our strategy is to supply highly customized motion control solutions that are robust, reliable and supportable. Our products reflect the culture that our global workforce embraces – a culture where the opportunity to solve challenging control problems is always welcomed.

The featured image displays Moog products that are designed into Lockheed Martin/Sikorsky's family of multi-service helicopters. The U.S. Navy Seahawk that's shown is a variant derived from the Army's UH-60 Black Hawk® and shares similar components with the Coast Guard HH-60 Jayhawk and Air Force HH-60 Pave Hawk. Known as a rugged, reliable utility helicopter, multiple configurations and models serve the armed forces of 26 countries worldwide. In addition to flight controls, targeting electronics, de-icing systems, electronics and slip rings, Moog electromechanical actuators provide motion for the high-fidelity rotary-wing flight simulators used to train pilots around the world.

NOTE: Moog content may vary by model/variant, service role or country of use.

Small Photo Credits (Above):

MH-60 Jayhawk
Courtesy of U.S. Coast Guard / Sr. Chief Petty Officer Rachel Polish

MH-60R Seahawk and HELLFIRE® Missile
Courtesy of U.S. Navy / MC Spec. 2nd Class Arthurgwain Marquez

HH-60 Pave Hawk
Courtesy of U.S. Air Force / Staff Sgt. Ryan Callaghan

MH-60R Seahawk Flight Simulator Motion System – Australian Navy
Courtesy of CAE

The appearance of U.S. Department of Defense (DoD) visual information does not imply or constitute DoD endorsement.

Cover Photo Credits:

Main cover image:
Moog servoactuator assemblies for SH-60 Seahawk helicopter pitch and roll trim
Courtesy of U.S. Navy / MC Spec. Seaman Brian Wilbur

Cover top row, left to right:
CV-22 Osprey Flight Simulator *Courtesy of U.S. Air Force / Master Sgt. Ronald Williams*
MH-60 Seahawk Helicopter *Courtesy of U.S. Navy / MC Spec. 2nd Class Torrey W. Lee*
Heavy Industry-Steel *Courtesy of Shutterstock*

Cover middle row, left to right:
STRYKER Ground Vehicle *Courtesy of U.S. Army / Sgt. Austin Owen*
Delta IV Heavy Rocket *Courtesy of U.S. Air Force and United Launch Alliance*
F-35 Lightning II *Courtesy of Johnny Saldivar*

Cover bottom row, left to right:
Boeing 787-9 *Courtesy of Karmazin Photography*
NASA's Juno Spacecraft *Courtesy of NASA/JPL-Caltech*
Oil and Gas Platform *Courtesy of Shutterstock*

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