

LORD® Active Actuation Control Technology

Achieve Actuation Control Easier and More Competitively

LORD® Active Actuation Control is an enabling technology that makes smart actuation elegant and reliable. We believe in creating strong value through long-lasting and trusted smart technology that enhances design flexibility and lowers complexity. Our desire is for smart technology to enable greater engineering and design freedom that facilitates new breakthroughs in smart system capabilities.

LORD Active Actuation Control technology is highly responsive, powerful, precise, and requires less space and energy to perform.

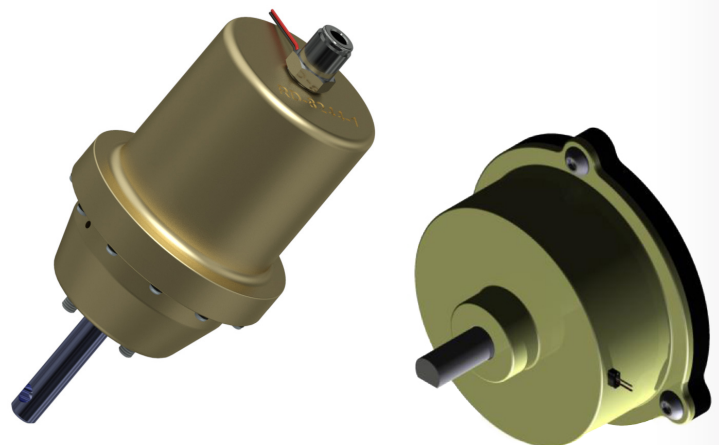
Using LORD patented MagneLok™ technology and know-how, LORD Active Actuation Control solutions enable infinite variable positioning of on-off actuators employing vacuum, solenoid, hydraulic, or pneumatic power where a fully controllable option is needed. The solution is critical for optimizing smart systems performance without the use of cumbersome electro-magnetic motors.

APPLICATION

With its high power density, LORD Active Actuation Control in a linear MagneLok configuration is an integrated design providing high force locking control for compact fit and form tolerances. Likewise, the rotary MagneLok can generate equally high force control in a non-integrated design where a greater degree of freedom in fit and form is applicable.

POTENTIAL USES

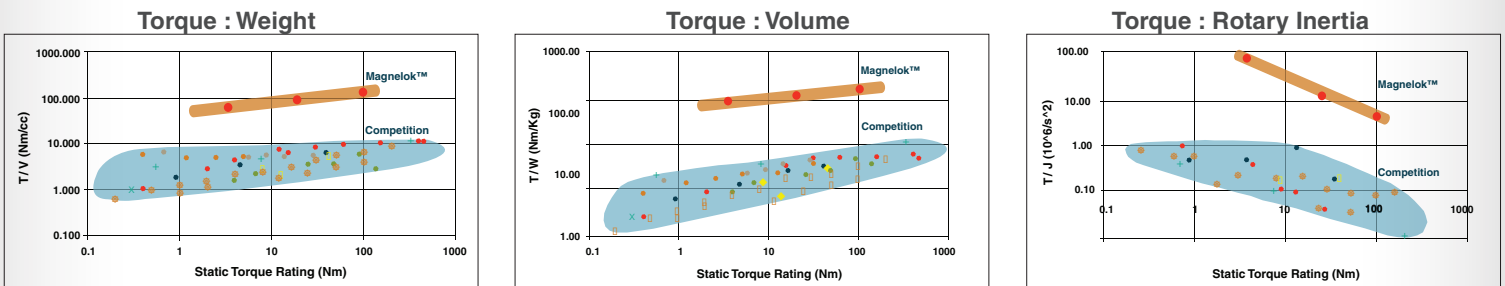
- Combustion engine thermal system management
- HVAC
- Exhaust treatment and air-intake
- Turbo-charging
- Industrial flow control
- Robotic arm positioning



ADVANTAGES

- **Fail Safe:** Default to fully open or closed valve position depending on application need. MagneLok has near zero resistance in off state.
- **High Power Density:** Higher ratio of torque weight and space with lower inertia compared to electro-motor devices. Flexible design and compact packaging for downsized engine boosting.
- **Harsh Environment:** Operates in heat environment greater than 200°C.
- **Fast Response:** Reacts in milliseconds with near instantaneous movement and locking.
- **Proportional:** Highly repeatable and accurate (based on controller function).

Compared to electro-motor benefits, a device using MagneLok Technology lowers weight, takes less space, and has a lower inertia.



PATENTED TECHNOLOGY

LORD MagneLok technology granted and pending patents are around the intelligent precise locking of an actuator arm driving a movable device between at least a start position and stop position, with the ability to stop at any position inbetween the start and stop positions.

ABOUT LORD CORPORATION

LORD Corporation is a diversified technology and manufacturing company developing highly reliable adhesives, coatings, motion management devices, and sensing technologies that significantly reduce risk and improve product performance. For more than 90 years, LORD has worked in collaboration with our customers to provide innovative oil and gas, aerospace, defense, automotive and industrial solutions. With world headquarters in Cary, N.C. and 2014 revenues in excess of \$890 million, LORD has approximately 3,000 employees in 26 countries and operates 17 manufacturing facilities and nine R&D centers worldwide. LORD actively promotes STEM education and many other community engagement initiatives. For more information, visit <http://www.lord.com>.

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