

***CURTISS-  
WRIGHT***

**EXLAR<sup>®</sup>**

AUTOMOTIVE ■ ACTUATION ■ SOLUTIONS





# Press Shop

*Rugged • Reliable • Efficient*



Smaller batch sizes, increased part complexity, and new material alloys are pushing the limit of existing manufacturing methods. New automation solutions must be flexible enough to easily adapt to varying models and faster model changes yet still offer high precision and long service life while operating under harsh conditions.

Based on roller screw technology, Exlar® electric actuators from Curtiss-Wright provide the ideal combination of high force, long life, and programmability to replace older, inflexible, high maintenance hydraulic cylinders. Offering both high force and high precision, Exlar actuators enable game-changing automation solutions to help you keep pace with ever-increasing production demands.

- Clamping
- Forming
- Positioning
- Sealer apply
- Piercing

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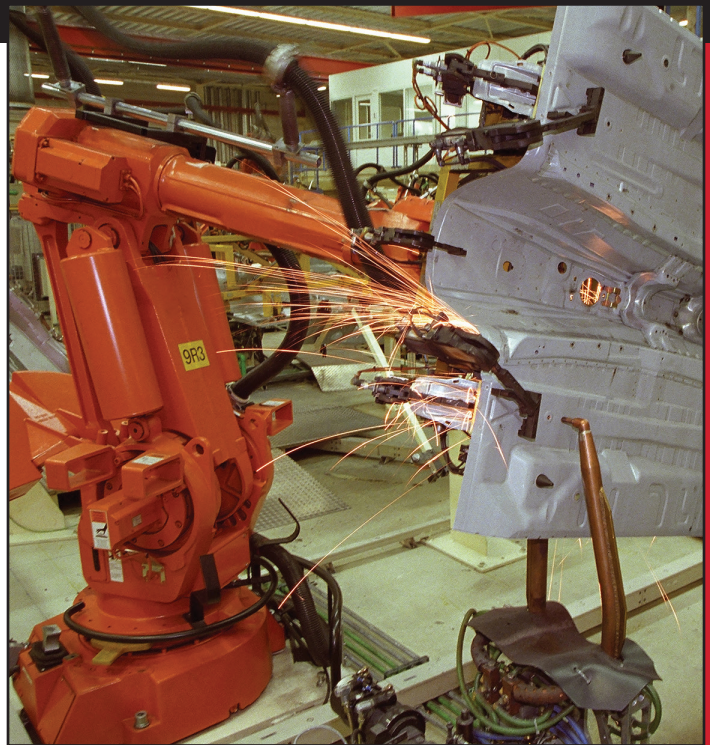


# Body Shop

*Agile • Compact • Robust*

Coping with multiple models per line and an expanding array of material combinations has created significant challenges for process engineers in the body shop, driving an increased interest in, and adoption of, industrial robots. Developing end-of-arm tooling that not only offers the flexibility and precision required for the application, but is also compact, lightweight, and durable only compounds the complexity of the problem.

Curtiss-Wright's integrated Exlar actuators incorporate motor, feedback, and actuator technologies into a single, compact, power-dense package. An industry-leading power-to-weight ratio backed by over two decades of experience seamlessly integrating with all of the major global robot controllers makes Exlar actuators an ideal choice as a 7th axis actuator in a wide variety of robotic applications.



- Welding
- Clamping
- Positioning
- Sealer apply
- Robotic 7th axis actuation

# Paint Shop

*Certified • Compact • Precise*



A need to protect the environment and reduce waste has driven investment in new coatings and application methods in the paint shop. Precise mixing and metering, as well as robotic application, not only requires automation solutions that are compact, flexible and accurate, but are also certified for use in hazardous locations.

Based on a broad portfolio of standard products, Curtiss-Wright offers a variety of linear and rotary actuators that are certified for use in hazardous locations. Available certifications include ATEX, CSA – Class 1, Division 1 and CSA – Class 1, Division 2.

- Sealer apply
- Reciprocators
- Positioning

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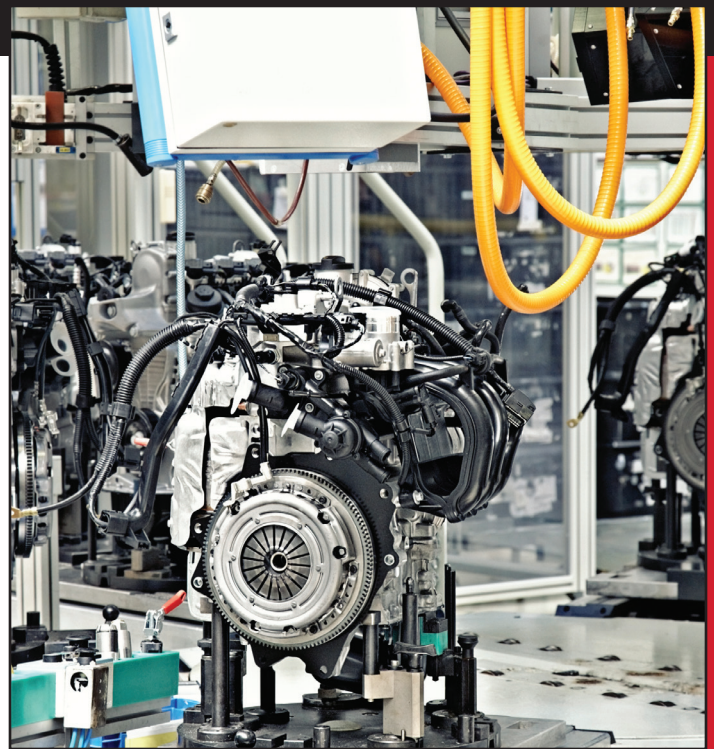


# Powertrain

*Precise • Powerful • Fast*

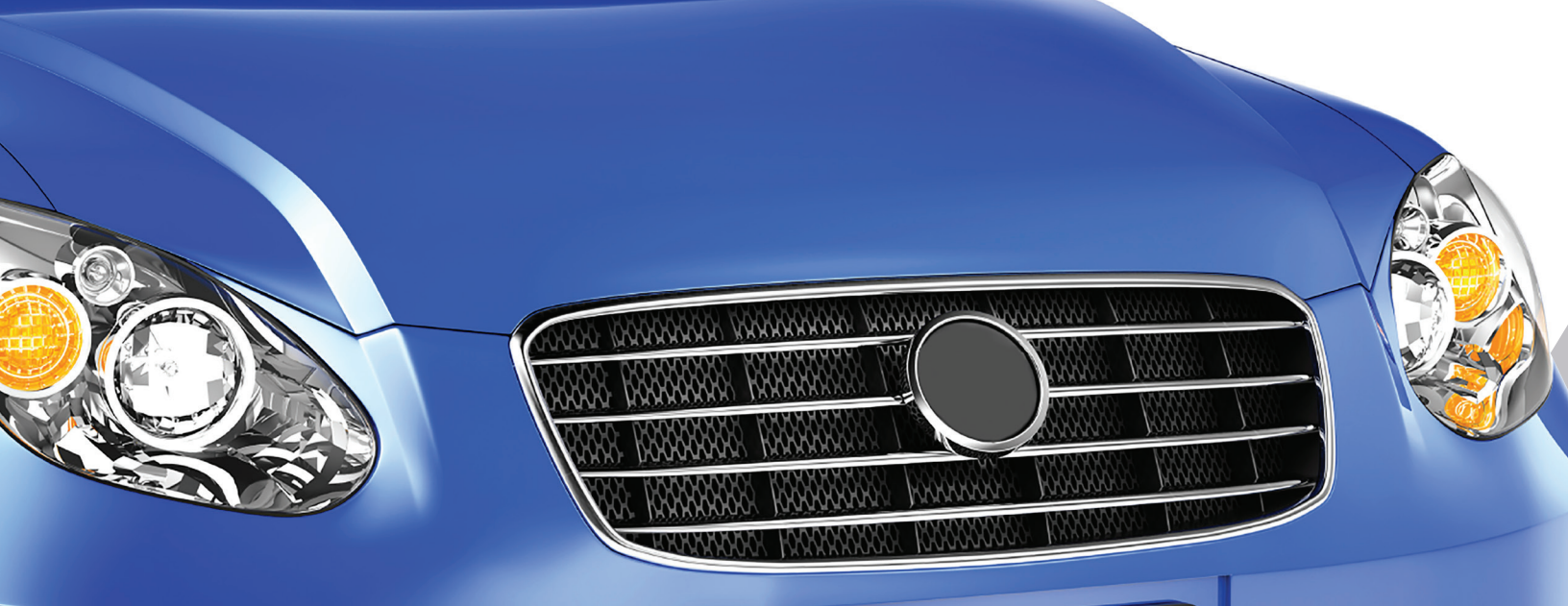
The production of powertrain components such as engines, gearboxes, and axles in a modern automotive manufacturing facility requires automation solutions that are powerful, precise, flexible, and durable. The trend toward flexible manufacturing cells and increased use of industrial robots to accommodate and simplify the changeover from one part to the next is driving a need for more compact, lightweight, programmable actuation.

Curtiss-Wright's Exlar electric actuators offer the high force density and durability of hydraulics, combined with the precision, flexibility, and cleanliness of electrics. Long life, minimal maintenance, and the ability to quickly reconfigure parameters leads to a lower total cost of ownership relative to traditional hydraulic solutions while also enabling automotive manufacturers and their suppliers to achieve increasing productivity goals.



- Pressing / insertion
- Clamping
- Slide positioning
- High load testing
- Robotic 7th axis actuation





# Final Assembly

*Simple • Clean • Efficient*



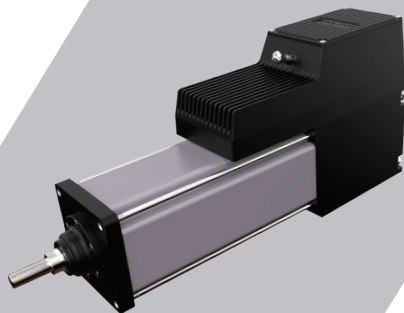
Tight space constraints, diversity of required tasks, and close proximity to humans make the implementation of automation in Final Assembly particularly challenging. In addition to being flexible and precise, automation solutions in final assembly must be clean to avoid damaging the nearly finished vehicle, quiet to meet working environment regulations, and efficient to achieve energy reduction goals.

High force in a compact, lightweight package, combined with seamless integration with most robot controllers as a 7th axis make Exlar integrated actuators from Curtiss-Wright the ideal choice for robotic end-of-arm tooling. Our clean, easy to use actuators are a perfect fit for final assembly.

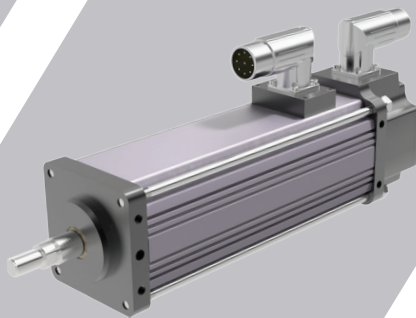
- Sealer apply
- Filling
- Testing
- Ergonomic lifting

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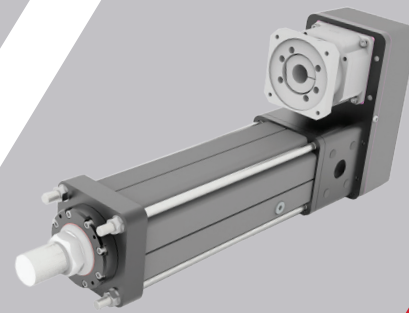




*Drive / Motor / Actuator*



*Motor / Actuator*



*Actuator*

## CURTISS-WRIGHT

Exlar Automation

Due to inherent benefits in terms of ease of installation, higher performance and flexibility, lower maintenance, and increased energy efficiency, electric actuation is increasingly the technology of choice over the more traditional fluid power solutions, both hydraulic (oil) and pneumatic (air). Plug-and-play compatibility, high dynamic response and accuracy, programmable motion profiles, and efficiency of better than 90% versus 70 to 80% for hydraulics and 50 to 60% for pneumatics are just a few of the compelling reasons why more and more machine builders are switching to electric.

In addition to the benefits provided by switching from fluid power to electric, Exlar® roller screw actuators from Curtiss-Wright deliver very high force in a very small package, and provide up to 15 times the life of competitive electric actuators. Designed from the beginning as a superior electric replacement for hydraulics, Exlar roller screw actuators offer the power density and rugged reliability of a hydraulic cylinder combined with the performance, flexibility, and efficiency of an electric actuator.

- Long life
- High power density
- Precise / repeatable
- Flexible / programmable
- Clean / efficient
- Minimal maintenance



# ***CURTISS - WRIGHT***

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*Exlar® actuators are a brand of Curtiss-Wright, Sensors and Controls Division.*

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