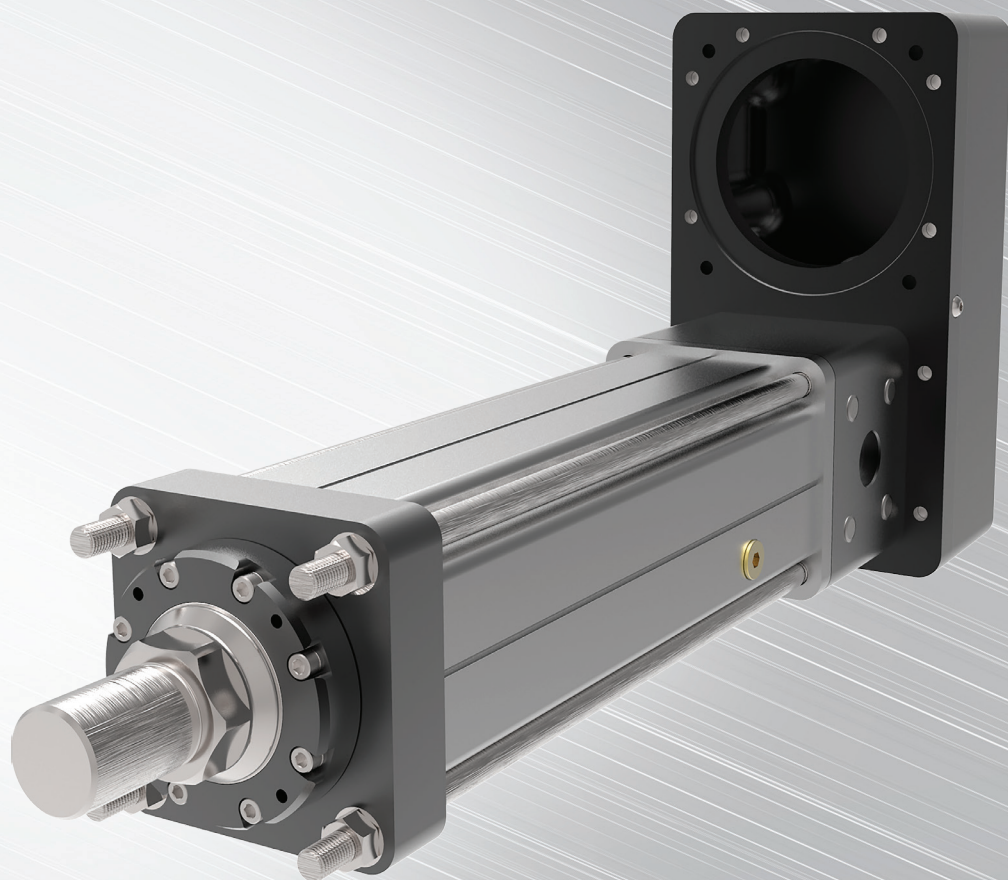


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**FTX Series
High Force Electric Actuators**

Next Generation Product Brochure

EXLAR[®]

High Force Universal Actuator

FTX Series

Product Description

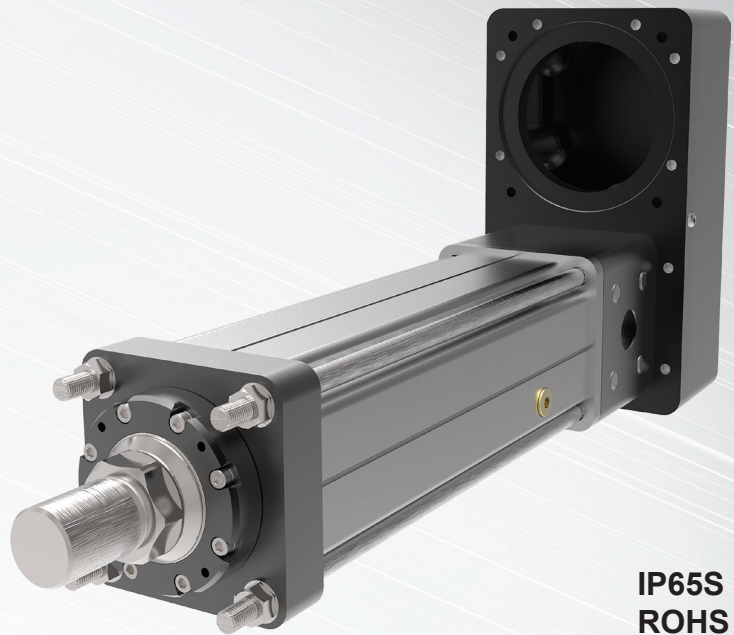
The FTX Series high force electric actuators were designed specifically to allow easy migration from hydraulic to electric actuation. The FTX offers up to 15X longer life and twice the force density as common ball screw electric actuators making the roller screw based FTX the right choice when migrating.

Rugged and Reliable

Hydraulic cylinders are commonly installed in harsh industrial settings. All FTX Series models are environmentally sealed to IP65S allowing you to use them in your most challenging applications. In addition, its planetary roller screw mechanism withstands significantly higher shock loads than weaker ball screw alternatives. Migrate to electric with confidence knowing the FTX Series is every bit as rugged and reliable as the hydraulics they are designed to replace.

Minimal Maintenance

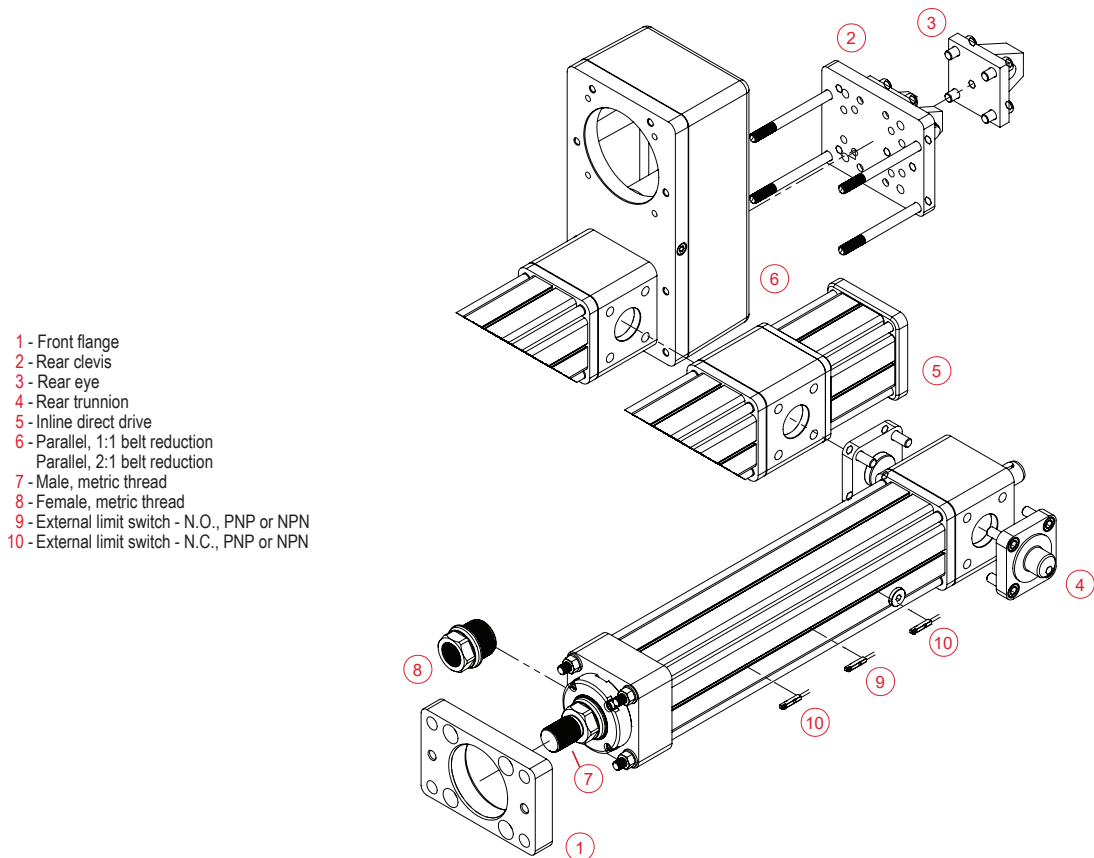
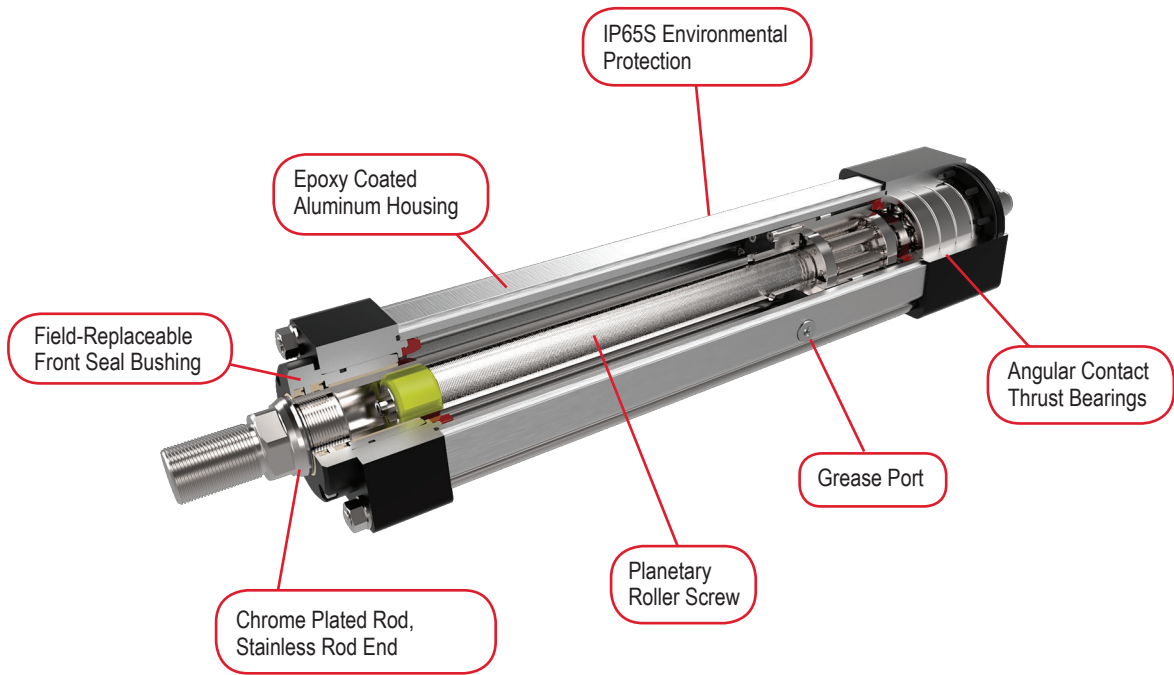
More and more machine builders are looking to eliminate the mess and downtime associated with hydraulic fluid leaks. Electric actuation not only eliminates the problems associated with fluid leaks, it offers significantly higher levels of performance and flexibility than is possible even with servo-hydraulic solutions. FTX Series roller screw actuators allow machine builders to meet ever-increasing performance demands while minimizing or eliminating the maintenance issues associated with traditional hydraulic solutions.



IP65S
ROHS

Performance Range				
Model	Frame Size mm (in)	Stroke mm (in)	Max Force kN (lbf)	Max Speed mm/sec (in/sec)
FTX095	95 (3.7)	150 (6), 300 (12), 600 (24), 900 (36)	22 (5,000)	1500 (59)
FTX125	125 (5.0)		44 (10,000)	583 (23)
FTX160	160 (6.3)		89 (20,000)	1000 (39)
FTX215	215 (8.5)		178 (40,000)	875 (34)

Product Features



Industries & Applications

Successful applications for our FTX Series high force actuators include pressing, forming, and cutting. We have extensive experience in applying the right product and / or system to solve your most difficult manufacturing challenges. Our representatives can provide guidance to optimize system performance, eliminate premature wear, increase production, improve quality, and ultimately reduce costs. Below are some of the most common applications for the FTX Series. Give one of our representatives a call today to go over your application.

Automotive

- Lift station
- Automated assembly
- Riveting / fastening / joining
- Pressing

Entertainment / Simulation

- Action simulators
- Ride automation

Machining

- Automated flexible fixturing
- Machine tooling
- Parts clamping
- Precision grinders
- Forming

Material Handling

- Stamping
- Indexing stages
- Product sorting
- Material cutting
- Web guidance
- Wire winding
- Tube bending

Plastics

- Mold locks
- Part ejecting
- Core pulling
- Gate valve

Process Control

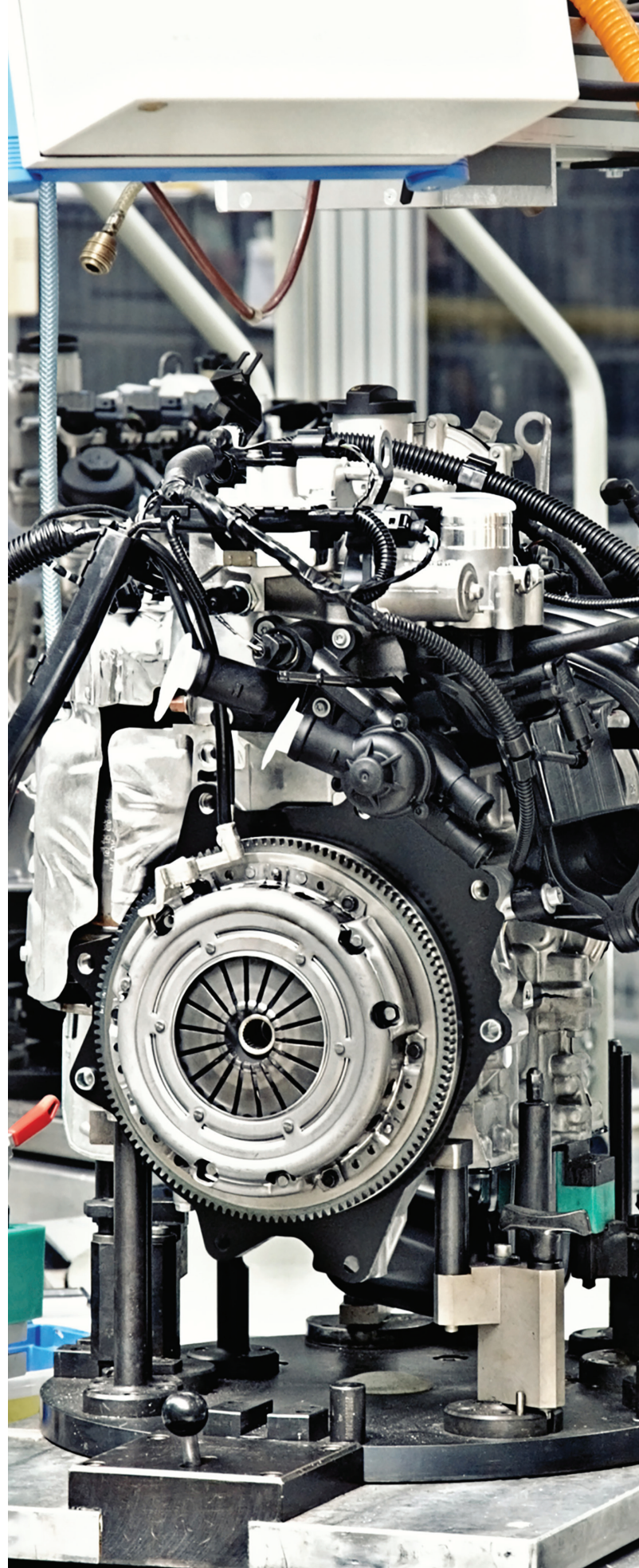
- Conveyor diverters / gates
- Precision valve control
- Tension control

Sawmill / Forestry

- Saw positioning
- Fence positioning

Test

- Test stands





Application Example

Thermoforming OEM Gains Smoother Motion and Longer Life

CUSTOMER

A flexible thermoforming machine builder producing a wide variety of customized solutions in the plastics industry was able to meet their production goals.

APPLICATION

Utilizing plug assisted forming along with pneumatic actuation, the thermoforming machine was not able to maintain accurate control. Varying wall thicknesses in the molds created ribs and contours where there shouldn't be.

CUSTOMER CHALLENGE

In designing their new high capacity thermoforming machine, the customer required higher forces to press the molds together and a smoother motion profile to minimize vibration. A longer service life was important as well.

SOLUTION

Our roller screw actuator technology was chosen over less capable linear motion solutions. Pneumatic cylinders could not produce a sufficient force and stiffness for pressing and rotating. They replaced the pneumatic plug drive and the cam system for opening and closing the mold with two Exlar FTX160 actuators and one GTX080 integrated actuator. Exlar also provided an electric cam profile resulting in all of their objectives being met including a smoother motion profile.

RESULTS

- Significantly longer life with less maintenance
- Less noise and energy consumption
- Better accuracy and repeatability
- Higher force
- Smoother and more efficient motion

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