

ELECTRIC ACTUATORS

engineered for long life with



SELECT THE ACTUATOR

RODLESS STYLE SCREW ACTUATORS



MXE-S

Solid bearing design to accommodate moderate load carrying and guidance applications

PAGE 6

| MAX. LOAD | MAX. THRUST | MAX. SPEED | MAX. STROKE |
|-----------|-------------|--------------|-------------|
| 1,040 lb | 4,300 lbf | 60 in/sec | 178 in |
| 4,626 N | 19,127 N | 1,524 mm/sec | 4,521 mm |



MXE-P

Recirculating ball linear bearings support moderate to heavy load and moment applications

PAGE 8

| MAX. LOAD | MAX. THRUST | MAX. SPEED | MAX. STROKE |
|-----------|-------------|--------------|-------------|
| 2,583 lb | 4,300 lbf | 60 in/sec | 178 in |
| 11,490 N | 19,127 N | 1,524 mm/sec | 4,521 mm |



B3S

Internal recirculating ball bearing design to fully support moderate to heavy loads and moments

(M3S, B3SD, M3SD) PAGE 10

| MAX. LOAD | MAX. THRUST | MAX. SPEED | MAX. STROKE |
|-----------|-------------|--------------|-------------|
| 8,032 lb | 2,700 lbf | 60 in/sec | 179 in |
| 35.728 N | 12.010 N | 1.524 mm/sec | 4.547 mm |



TKS

Table style actuator with the highest accuracy, flatness and straightness specifications

PAGE 12

| MAX. LOAD | MAX. THRUST | MAX. SPEED | MAX. STROKE |
|-----------|-------------|--------------|-------------|
| 1,500 lb | 3,260 lbf | 60 in/sec | 96 in |
| 6,672 N | 14,501 N | 1,524 mm/sec | 2,438 mm |

RODLESS STYLE BELT ACTUATORS



MXB-U

Pre-assembled compact linear belt solution for use in applications with existing guides & supports

PAGE 14

| MAX. LOAD | MAX. THRUST | MAX. SPEED | MAX. STROKE |
|-----------|-------------|--------------|-------------|
| _ | 418 lbf | 200 in/sec | 230 in |
| _ | 1,859 N | 5,080 mm/sec | 5,842 mm |



MXB-P

Recirculating ball linear bearings support moderate to heavy load and moment applications

PAGE 16

| MAX. LOAD | MAX. THRUST | MAX. SPEED | MAX. STROKE |
|-----------|-------------|--------------|-------------|
| 2,583 lb | 418 lbf | 150 in/sec | 230 in |
| 11,490 N | 1,859 N | 3,810 mm/sec | 5,842 mm |



Internal belt with the same bearing design as B3S, supporting high speed and long stroke applications

(M3W, B3WD, M3WD)

PAGE 18

| MAX. LOAD | MAX. THRUST | MAX. SPEED | MAX. STROKE |
|-----------|-------------|--------------|-------------|
| 8,032 lb | 325 lbf | 200 in/sec | 292 in |
| 35,728 N | 1,446 N | 5,080 mm/sec | 7,417 mm |



TKB

Table style actuator with the highest accuracy, flatness and straightness specifications

PAGE 20

| MAX. LUAD | MAX. IHKUSI | MAX. SPEED | MAX. STRUKE |
|-----------|-------------|--------------|-------------|
| 1,500 lb | 245 lbf | 100 in/sec | 96 in |
| 6,672 N | 1,090 N | 2,540 mm/sec | 2,438 mm |

NOTE: Actuators may not deliver ALL the maximum ratings in one application; (e.g., maximum speed is generally not recommended with maximum load)
Sold & Serviced By:



STYLE YOU NEED...

| ROD STYLE SCREW ACTUA | ATORS | | | | | | | | |
|--|------------|--|------------------------------------|---------------------------------|----------------------------|--|--|--|--|
| | ERD | Economical rod-style electric actuator with solid nut/screw in a compact package | | | | | | | |
| | | MAX. LOAD | MAX. THRUST | MAX. SPEED | MAX. STROKE | | | | |
| | PAGE 22 | _ | 4,500 lbf | 40 in/sec | 24 in | | | | |
| | TAUL ZZ | | 20,017 N | 1,016 mm/sec | 610 mm | | | | |
| | ICR | | tor controller c ce application | | | | | | |
| | | MAX. LOAD | MAX. THRUST | MAX. SPEED | MAX. STROKE | | | | |
| | PAGE 24 | _ | 720 lbf | 25 in/sec | 24 in | | | | |
| | | | 3,203 N | 635 mm/sec | 609 mm | | | | |
| | RSA | Traditional poperation for | oneumatic or f or externally su | nydraulic cylir Ipported and | nder style guided loads | | | | |
| | (RSM) | MAX. LOAD | MAX. THRUST | MAX. SPEED | MAX. STROKE | | | | |
| | PAGE 26 | _ | 7,350 lbf | 123 in/sec | 60 in | | | | |
| | 17102 20 | | 32,695 N | 3,124 mm/sec | 1,524 mm | | | | |
| A Miles | GSA | | ned guided cyli ring guidance i | | eration for | | | | |
| The state of the s | (GSM) | MAX. LOAD | MAX. THRUST | MAX. SPEED | MAX. STROKE | | | | |
| | PAGE 28 | 1,200 lb | 2,700 lbf | 123 in/sec | 36 in | | | | |
| | | 5,338 N | 12,010 N | 3,124 mm/sec | 914 mm | | | | |
| | IMA | Integral mo high force a | tor design with applications in | n roller or ball a compact p | l screw for ackage | | | | |
| | | MAX. LOAD | MAX. THRUST | MAX. SPEED | MAX. STROKE | | | | |
| | PAGE 30 | | 6,875 lbf | 52.5 in/sec | 18 in | | | | |
| | I AUL 00 | | 30,594 N | 1,334 mm/sec | 457 mm | | | | |

...COMPLETE YOUR SOLUTION

ADD ANY MOTION SYSTEM TO OUR ACTUATOR



CUSTOM MOTOR MOUNTS. 15 DAYS

• Select a high-performance Tolomatic electric actuator and we'll provide a motor-specific interface for your motor. With our online database, you can select from over 60 motor manufacturers and hundreds of models.

Visit **www.tolomatic.com/ymh** today to find your motor/actuator match!

OR

SELECT A COMPLETE SYSTEM FROM TOLOMATIC



- MOTORS
- DRIVES
- CONTROLLERS
- GEARBOXES

Tolomatic offers digital servo or stepper drives with motors matched to provide optimal performance with Tolomatic actuators.

NOTE: Actuators may not deliver ALL the maximum ratings in one application; (e.g., maximum speed is generally not recommended with maximum load)







DEDICATED TO LINEAR MOTION SOLUTIONS



Since 1985, with the introduction of our pneumatic rodless band cylinder, Tolomatic has been a market leader for linear motion solutions. In 1992, we introduced screw and belt driven rodless actuators for users demanding solutions controlled by electric motors. Today, Tolomatic's electric product family has grown to include a broad range of rod and rodless style actuators and actuators with integral motors and built-in position sensors. All standard products are built to order and shipped directly to you in 15 days or less! From single actuators to complete systems, turn to Tolomatic for your linear motion solutions.

COMMITTED TO THE HIGHEST QUALITY



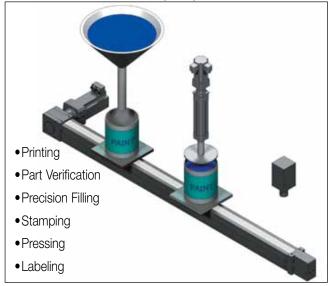
Our commitment to quality is legendary. From stringent process controls in our manufacturing facility to the best customer support, we stand behind our products.

• ENDURANCE TECHNOLOGY •

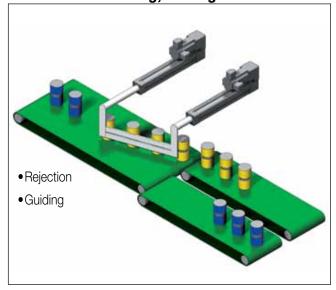
Years of application experience focused on linear actuators means every component and material is designed to produce the best value and best performing actuators in the market today.

We call this philosophy Endurance Technology.

APPLICATION: Position, Fill, Assemble



APPLICATION: Gating, Sorting





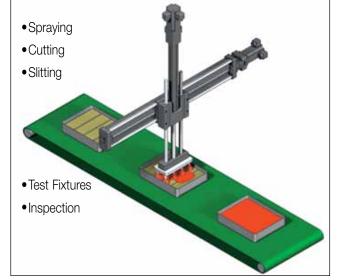
UNDERSTANDING THE DIFFERENCES

| | ROD ACTUATORS | RODLESS ACTUATORS |
|-----------------------|---|---|
| OPERATING ENVELOPE | The load (or end effector) is able to fully retract out of the work zone, allowing clearance for other operations. | The load and carrier traverse the body of the actuator itself, providing up to 50% space savings when compared to an equivalently sized rod actuator. |
| STROKE LENGTH | Stroke length limitations exist due to the mass and support requirements when the actuator thrust tube is extended. A max. stroke length of 5 feet is normal. | Applications requiring longer stroke lengths can easily be accommodated; lengths of 24 feet are available as standard product. |
| LOAD SUPPORT | External load support and guidance is typically required. | The actuator body supports the load and associated moments; actuator bearing designs accommodate load requirements. |
| SPEED AND THRUST | Installations with a ball or roller screw can provide high forces via the thrust tube. | Belt drive rodless actuators are capable of high speeds, up to 200 in/sec. (5m/sec.) |
| MASS AND INERTIA | Higher weight and moment of inertia are typical due to the mass of the thrust tube. | Lower total mass and lower reflected inertia are typical when compared to rod style actuators. |

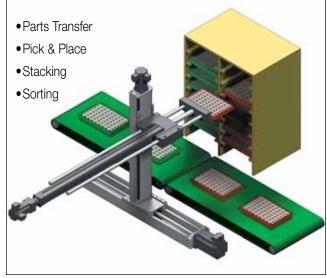
ADVANTAGES OF ELECTRIC ACTUATORS

- Provides precise control of acceleration, speed, position and/or torque
- Accurately positions the load at variable and repeatable locations within the full stroke
- Synchronizes multiple axes for coordinated moves
- Programs or configurations can quickly be changed for multiple applications
- Ability to synchronize with other machine operations
- Quiet, clean and energy efficient operation

APPLICATION: Applying, Dispensing



APPLICATION: Storage & Retrieval



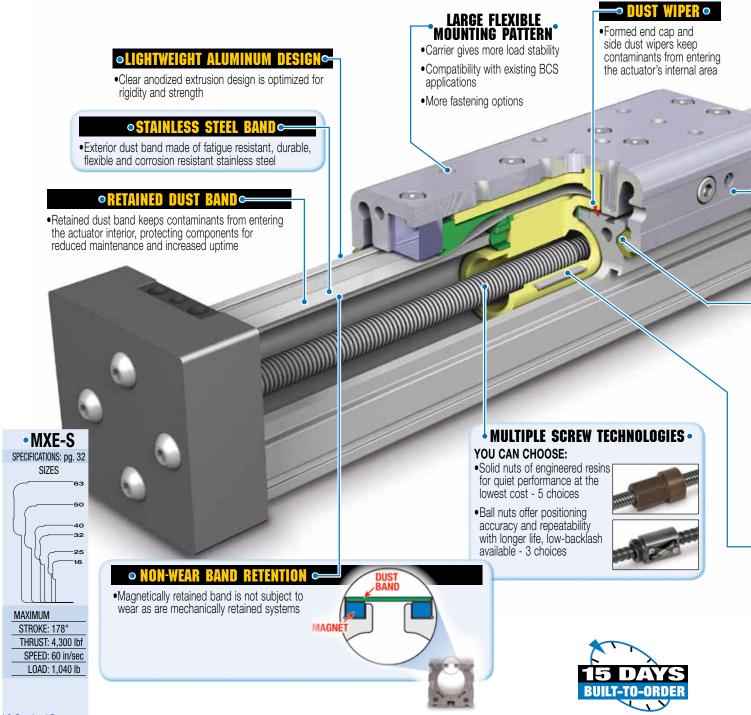


MXE-S SOLID BEARING SCREW ACTUATOR

ENDURANCE TECHNOLOGY[™]

Endurance Technology features are designed for maximum durability to provide extended service life.

The MXE-S rodless electric screw-drive actuator is designed for applications requiring moderate load carrying and guidance. The MXE-S actuator utilizes two field replaceable solid bearings that optimize stress distribution for optimal performance. Built-to-order in stroke lengths up to 178 inches.





INCH OR METRIC MOUNTING

• Your choice of inch (US standard) or metric mounting to the carrier

YOUR MOTOR HERE

YOU CAN CHOOSE:

- •Motor or gearbox supplied and installed by Tolomatic
- •Specify the device to be installed and actuator ships with proper mounting hardware MXE is a "Your Motor Here" actuator for easy in-line motor installation. Check our website (www.tolomatic.com/ymh) for complete YMH information
- •Specify and ship your device to Tolomatic for factory installation

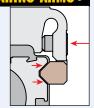
MOTOR ORIENTATION •

YOU CAN CHOOSE:

- •In-line option directly couples the driving shaft and is a one-piece housing construction for optimum alignment and support of the motor
- •Reverse-parallel option minimizes the overall length and offers a 1:1 or 2:1 belt ratio



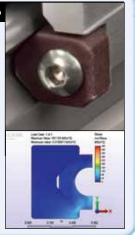
 Bearings are tensioned indirectly, providing bind free adjustment



NOTE: Boxed letters indicate ordering codes

⇒TRAPEZOIDAL BEARINGS∘

- Trapezoidal design maximizes bearing surface area for less pressure on bearing surfaces; less pressure results in less wear
- Engineered bearing material has low static and dynamic friction with low wear properties for long lasting. smooth operation
- •Bearings are field replaceable for extended service life



INTERNAL MAGNETS

 Standard feature that allows sensor installation on the open side or bottom of the extrusion

OPTIONS



AUXILIARY CARRIER DIC

- 2X higher Fz (load) capacity
- High bending moment capacity



FLOATING MOUNT FILE

• Compensates for non-parallelism between MX actuator and externally guided load



TUBE CLAMPS TC • Used for intermediate support

- Flush with bottom of actuator to retain low profile
- Drop-in, adjustable mounting locations (MXE16 uses T-nuts with mounting plates)



MOUNTING PLATES MP

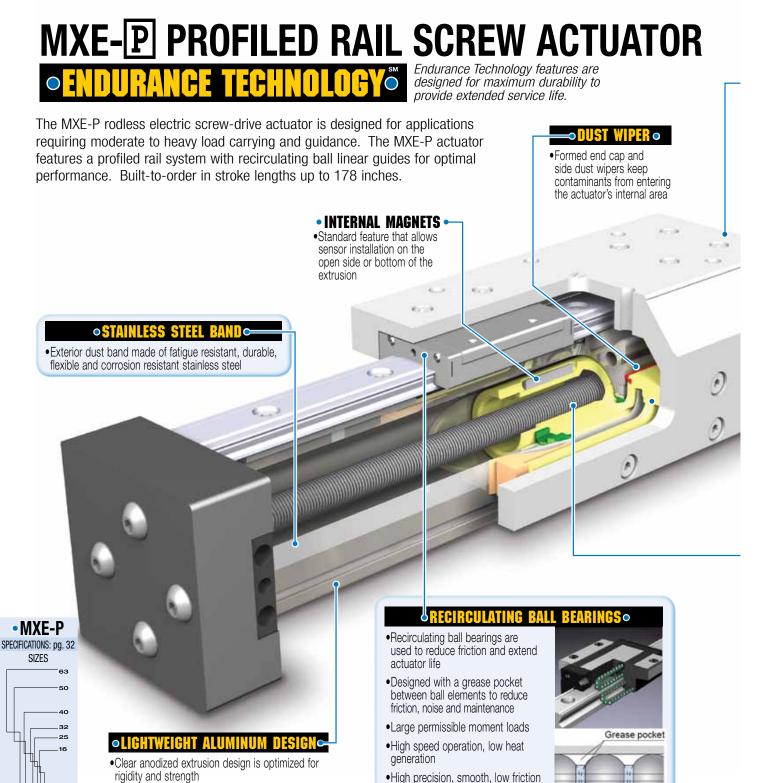
- To provide clearance for motor and mount
- Use in conjunction with tube clamps



SWITCHES

- Wide variety of sensing choices: Reed, Solid State PNP or NPN, all available normally open or normally closed
- Flush mount, drop-in installation
- Bright LEDs, power & signal indication
- CE rated. RoHS compliant





motion

Sold & Serviced By: ELECTROMATE

INCH OR METRIC MOUNTING

• Your choice of inch (US standard) or metric

mounting to the carrier

MAXIMUM STROKE: 178"

THRUST: 4,300 lbf

SPEED: 60 in/sec

LOAD: 2,583 lb



LOW CARRIER HEIGHT

- Reduces overall actuator envelope
- · Large mounting pattern for excellent load stability



YOUR MOTOR HERE

YOU CAN CHOOSE:

- •Motor or gearbox supplied and installed by Tolomatic
- Specify the device to be installed and actuator ships with proper mounting hardware - MXE is a "Your Motor Here" actuator for easy in-line motor installation. Check our website (www.tolomatic.com/ ymh) for complete information
- Specify and ship your device to Tolomatic for factory installation

MOTOR ORIENTATION •

YOU CAN CHOOSE:

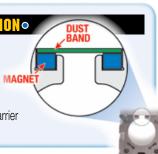
- In-line option directly couples the driving shaft and is a one-piece housing construction for optimum alignment and support of the motor
- Reverse-parallel option minimizes the overall length and offers a 1:1 or 2:1 belt ratio

 Retained dust band keeps contaminants from entering the actuator interior, protecting components for reduced maintenance and increased uptime

Bretained Dust

→NON-WEAR BAND RETENTION•

- Magnetically retained band is not subject to wear as are mechanically retained systems
- Immediate band engagement and release results in less drag on carrier for lower friction force during initial carrier movement



NOTE: Boxed letters — indicate ordering codes

MULTIPLE SCREW TECHNOLOGIES

YOU CAN CHOOSE:

- •Solid nuts of engineered resins offer quiet performance at the lowest cost - 5 choices
- Ball nuts offer positioning accuracy and repeatability with longer life, low-backlash available - 3 choices



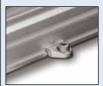


OPTIONS



AUXILIARY CARRIER DIC

- 2X higher Fz (load) capacity
- High bending moment capacity



TUBE CLAMPS TC

- Used for intermediate support
- Flush with bottom of actuator to retain low profile
- Drop-in, adjustable mounting locations (MXE16 uses T-nuts with Mounting Plates)



MOUNTING PLATES MP

- To provide clearance for motor and mount
- Use in conjunction with tube clamps



SWITCHES

- Wide variety of sensing choices: Reed, Solid State PNP or NPN, all available normally open or normally closed
- Flush mount, drop-in installation
- Bright LEDs, power & signal indication
- CE rated, RoHS compliant



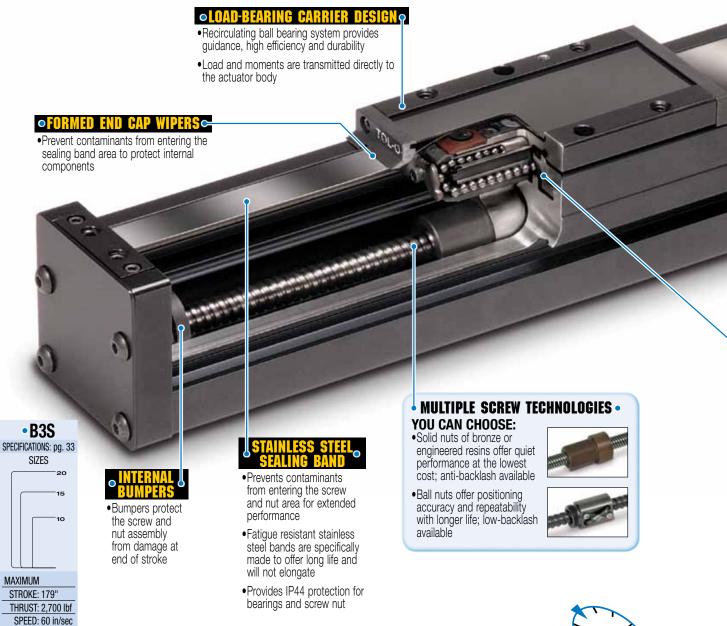


B3S RODLESS SCREW DRIVE ACTUATOR

• ENDURANCE TECHNOLOGY ○

Endurance Technology features are designed for maximum durability to provide extended service life.

The B3S rodless style actuator is designed for carrying moderate to heavy loads and accommodating the associated bending and dynamic moments. The B3S features a patented integral recirculating ball bearing guidance system that is protected by a stainless steel sealing band. Built-to-order in stroke lengths up to 179 inches with your choice of screw technology.







LOAD: 8.032 lb

Tolomatic... MAXIMUM DURABILITY



 Unique high thrust bearing assembly design eliminates runout and isolates the linear forces from the drive shaft



• External switch channels on both sides allow easy placement and adjustment of position indicating switches

MOTOR ORIENTATION • YOU CAN CHOOSE:

- Inline option directly couples the driving shafts and is a one-piece housing construction for optimum alignment and support of the motor
- •Reverse-parallel option minimizes the overall length and offers a 1:1 or 2:1 belt ratio

YOUR MOTOR HERE • YOU CAN CHOOSE:

- Motor or gearbox supplied and installed by Tolomatic
- •Specify the device to be installed and actuator ships with proper mounting hardware
- •Specify and ship your device to Tolomatic for factory installation

OPTIONS



CARRIER OPTIONS

- AUXILIARY CARRIER doubles the load capacity and increases pitch and yaw bending moment capacities
- DUAL 180° CARRIER doubles the load capacity, increases roll and yaw bending moment capacities and offers a wide mounting platform



MOUNTING OPTIONS

- SURFACE MOUNT two t-slots are integral on the entire underside of the actuator body for direct mounting
- •TUBE SUPPORTS provide intermediate support of the actuator body throughout long stroke lengths

METRIC OPTION

Provides metric tapped holes for mounting of load to carrier and of actuator to mating surfaces



SWITCHES

Styles include: reed, hall-effect or triac. Select either 15ft potted cable with flying leads or 6in to quick-disconnect coupler with mating 15ft cable

→ PATENTED WEDGE BEARING SYSTEM •



- Unique design incorporates hardened steel raceways integral to the aluminum extrusion
- Bearing surfaces are adjusted at the factory for optimum preload and smooth performance





TKS PRECISION SCREW DRIVE ACTUATOR

Endurance Technology features are designed for maximum durability to provide extended service life.

The TKS linear table style actuator is designed for applications carrying moderate load and requiring high precision in parameters such as flatness, straightness and accuracy. The TKS actuator utilizes two parallel profiled rails with four recirculating ball linear guides to provide consistent and precise performance. Built-to-order in stroke lengths up to 96 inches with your choice of screw technology.

• MULTIPLE SCREW TECHNOLOGIES

YOU CAN CHOOSE:

 Solid nuts of bronze or engineered resins offer quiet performance at the lowest cost; anti-backlash available



 Ball nuts offer positioning accuracy and repeatability with longer life; low-backlash available



TABLE DESIGN

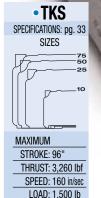
 A low profile design accommodates multiple mounting designs and assures a rigid and secure load



 Unique high thrust bearing assembly design eliminates runout and isolates the linear forces from the drive shaft

TWIN LINEAR RAILS AND BEARINGS

- The industry leading bearing system is installed for consistent tracking, low friction and extended performance
- Superior straightness and flatness is verified at the factory below 0.0002 inches per inch
- •Four bearing blocks provide rigid support of the carrier with the lowest possible deflection



• End of travel and home positioning sensors are integral into the body of the actuator for clean and easy

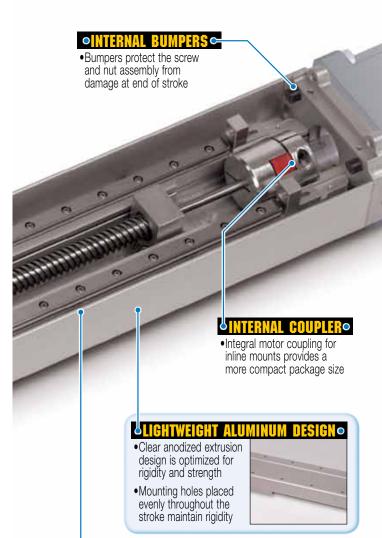
management







Tolomatic...MAXIMUM DURABILITY



MOTOR ORIENTATION • YOU CAN CHOOSE:

- Inline option directly couples the driving shafts and is a one-piece housing construction for optimum alignment and support of the motor
- •Reverse-parallel option minimizes the overall length and offers a 1:1 or 2:1 belt ratio

YOUR MOTOR HERE• YOU CAN CHOOSE:

- Motor or gearbox supplied and installed by Tolomatic
- •Specify the device to be installed and actuator ships with proper mounting hardware
- Specify and ship your device to Tolomatic for factory installation

UREMOVABLE COVER •

Provides rapid access to internal components and protects mechanisms from incidental damage



OPTIONS



CARRIER OPTIONS

• AUXILIARY CARRIER Doubles the load capacity and increases pitch and yaw bending moment capacities



SEALING OPTIONS

•BELLOWS provides additional protection of mechanical components in dirty environments



SWITCHES

Styles include: reed or hall-effect. 15ft potted cable with flying leads

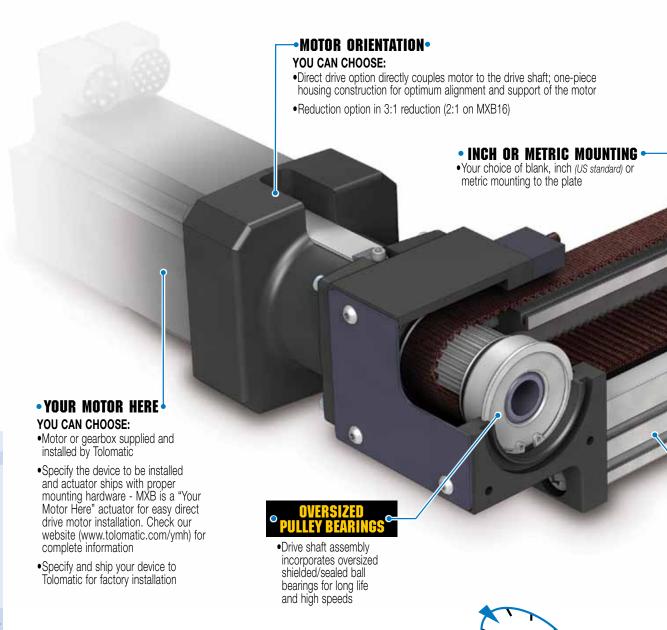


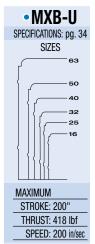
MXB-U UNGUIDED BELT DRIVE ACTUATOR

○ENDURANCE TECHNOLOGY

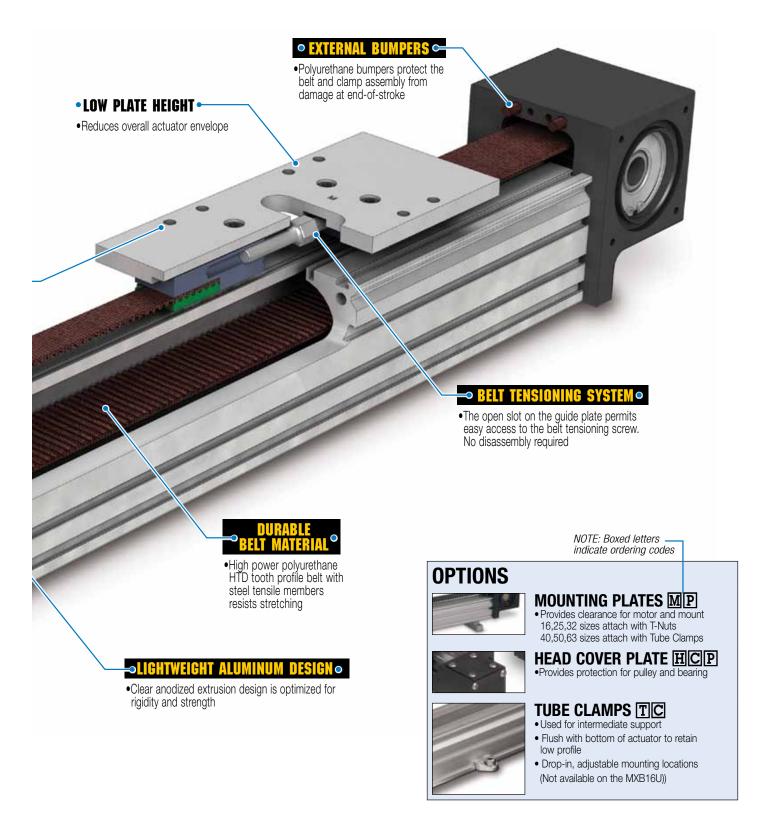
Endurance TechnologySM features are designed for maximum durability to provide extended service life.

The MXB-U rodless style actuator is a pre-assembled compact linear belt solution for use in applications with existing guides & supports. This economical actuator features speeds up to 200 in/sec and thrusts up to 418 lbf. Built-to-order in stroke lengths up to 200 inches.





ELECTROMATE





MXB-P PROFILED RAIL BELT DRIVE ACTUATOR

Endurance TechnologySM features are designed for maximum durability to provide extended service life.

The MXB-P rodless electric belt-drive actuator is designed for applications requiring moderate to heavy load carrying and guidance. The MXB-P actuator features a profiled rail system with recirculating ball linear guides for optimal performance. The MXB-P belt-driven actuator features speeds up to 150 in/

sec and thrusts up to 418 lbf. Built-to-order in stroke lengths up to 200 inches.

LOW CARRIER HEIGHT

 Reduces overall actuator envelope •Large mounting pattern for excellent load stability

•High power polyurethane HTD tooth profile belt with steel tensile members resists stretching

 Drive shaft assembly incorporates oversized shielded/sealed ball bearings for long life and high speeds

INCH OR METRIC MOUNTING

• Your choice of inch (US standard) or metric mounting to the carrier

MOTOR ORIENTATION YOU CAN CHOOSE:

- Direct drive option directly couples motor to the drive shaft; one-piece housing construction for optimum alignment and support of the motor
- •Reduction option in 3:1 reduction (2:1 on MXB16)

YOUR MOTOR HERE

YOU CAN CHOOSE:

- •Motor or gearbox supplied and installed by Tolomatic
- •Specify the device to be installed and actuator ships with proper mounting hardware - MXB is a "Your Motor Here" actuator for easy direct drive motor installation. Check our website (www.tolomatic.com/ymh) for complete information
- •Specify and ship your device to Tolomátic for factory installation



MXB-P

SPECIFICATIONS: pg. 34

SIZES

MAXIMUM

STROKE: 200"

THRUST: 418 lbf

SPEED: 150 in/sec

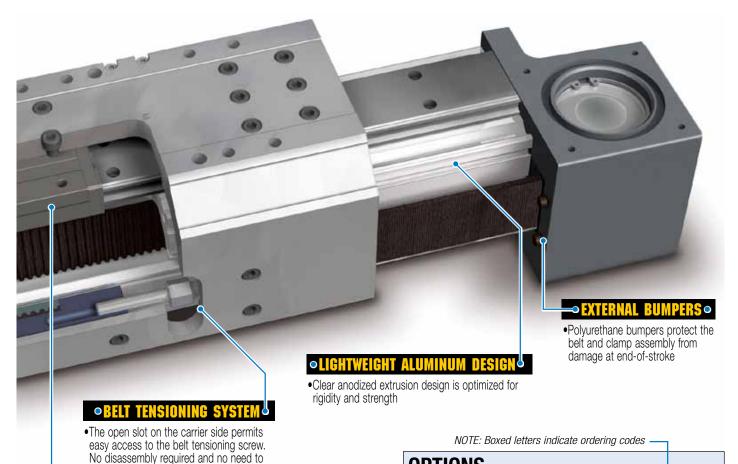
LOAD: 2,583 lb

COMPLETE

INFORMATION:

63

Tolomatic...MAXIMUM DURABILITY



OPTIONS



AUXILIARY CARRIER DC

- 2X higher Fz & Fy (load) capacity
- High bending moment capacity



MOUNTING PLATES MP

• Provides clearance for motor and mount 16,25,32 sizes attach with T-Nuts 40,50,63 sizes attach with Tube Clamps



TUBE CLAMPS TC

- Used for intermediate support
- Flush with bottom of actuator to retain low profile
- Drop-in adjustable mounting locations (Not available on the 16, 25 or 32 MXB-P sizes)



HEAD COVER PLATE HICIP

Provides protection for pulley and bearing



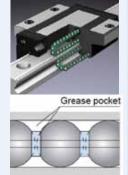
SWITCHES

- Wide variety of sensing choices: Reed, Solid State PNP or NPN, available normally open or normally closed
- Flush mount, drop-in installation
- Bright LEDs, power & signal indication
- CE rated, RoHS compliant

•Recirculating ball bearings are used to reduce friction and extend actuator life

remove the load from the carrier

- Designed with a grease pocket between ball elements to reduce friction, noise and maintenance
- Large permissible moment loads
- •High speed operation, low heat generation
- ·High precision, smooth, low friction motion



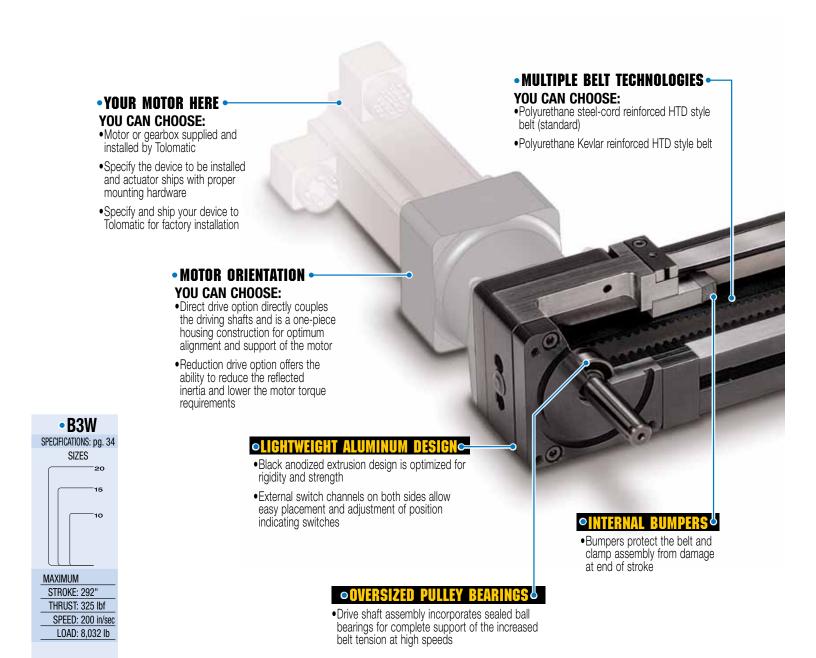


B3W RODLESS BELT DRIVE ACTUATOR

○ENDURANCE TECHNOLOGY

Endurance Technology features are designed for maximum durability to provide extended service life.

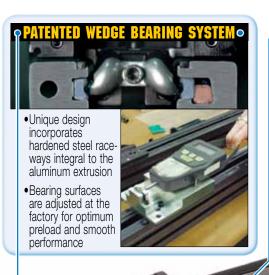
The B3W rodless style actuator is designed for carrying moderate to heavy loads at moderate to high speeds with large bending moment capacity. Based upon our BC3 pneumatic band cylinder, it utilizes a patented integral recirculating ball bearing guidance system that provides consistent and durable performance. The B3W belt-driven actuator features speeds up to 200 in/sec. and thrusts up to 325 lbf. Built-to-order in stroke lengths up to 292 inches.



Sold & Serviced By:

ELECTROMATE

Tolomatic...MAXIMUM DURABILITY



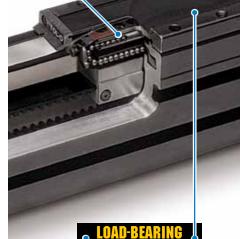
FORMED END CAP WIPERS

 Prevent contaminants from entering the sealing band area to protect internal components

⇒BELT TENSIONING SYSTEM<

- •Full access to the idle pulley allows ease of adjustment for alignment and tensioning
- •Dual adjustment screws and field tensioning kit provide simple maintenance





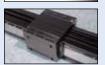
STAINLESS STEEL SEALING BAND

- Prevents contaminants from entering the belt and pulley area for extended performance
- Fatigue resistant stainless steel bands are specifically made to offer long life and will not elongate
- Provides IP44 protection for bearings and interior components

OPTIONS







 DUAL 180° CARRIER doubles the load capacity, increases roll and yaw bending moment capacities and offers a wide mounting platform



MOUNTING OPTIONS





•TUBE SUPPORTS provide intermediate support of the actuator body throughout long stroke lengths



METRIC OPTION

Provides metric tapped holes for mounting of load to carrier and of actuator to mating surfaces

SWITCHES

Styles include: reed, hall-effect or triac



Recirculating ball bearing

Load and moments are

actuator body

transmitted directly to the

system provides guidance,

high efficiency and long life



Sold & Serviced By:

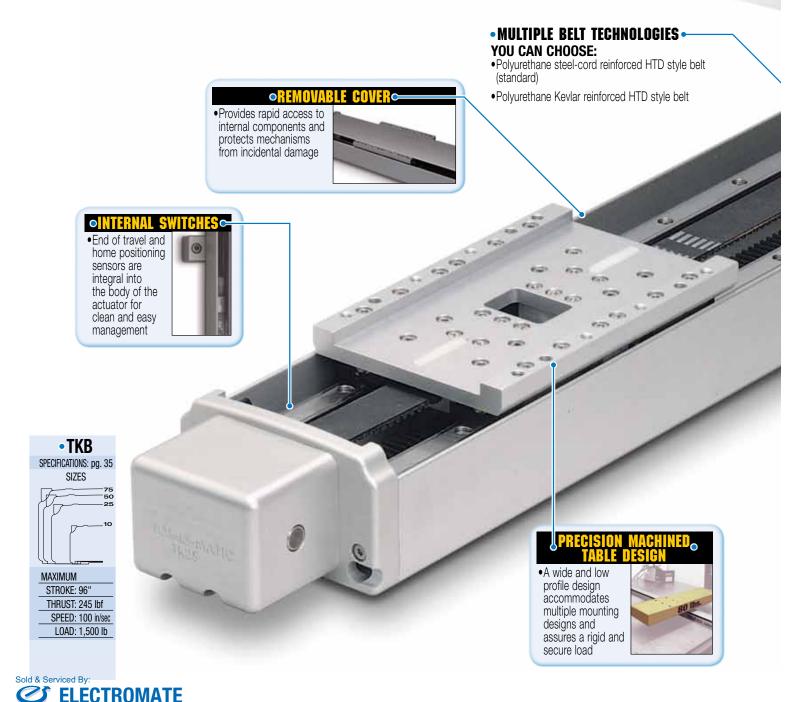
ELECTROMATE

TKB PRECISION BELT DRIVE ACTUATOR

○ ENDURANCE TECHNOLOGYEndurance Technology features are designed for maximum durability to

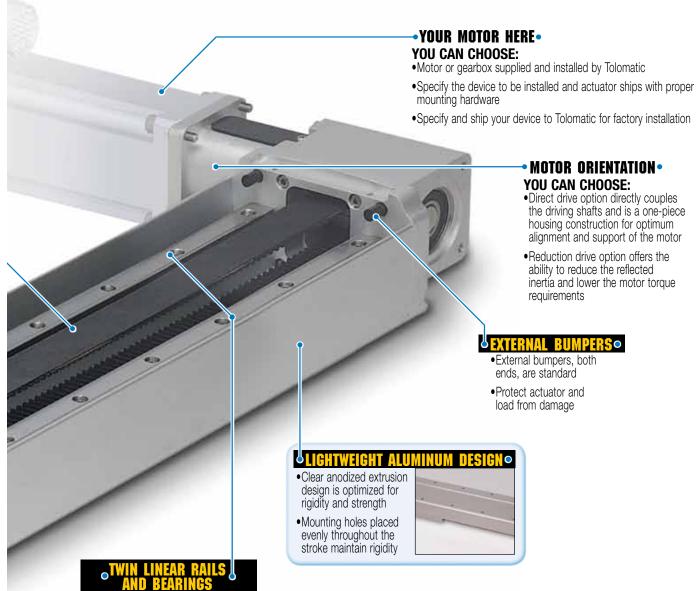
provide extended service life.

The TKB linear table style actuator is designed for high speed applications requiring high precision in parameters such as flatness and straightness. This unique actuator utilizes two parallel profiled rails with four recirculating ball linear guides to provide wide and stable mounting surface with consistent and precise performance. The TKB belt-driven actuator features speeds up to 100 in/sec. and thrusts up to 245 lbf. Built-to-order in stroke lengths up to 96 inches.



sales@electromate.com

Tolomatic... MAXIMUM DURABILITY



The industry leading bearing system is installed for consistent tracking, low friction and extended performance

- Superior straightness and flatness is verified at the factory below 0.0002 inches per inch
- Four bearing blocks provide rigid support of the carrier with the lowest possible deflection



Sold & Serviced By: ELECTROMATE

Toll Free Phone (877) SERV098 Toll Free Fax (877) SERV099 www.electromate.com sales@electromate.com

OPTIONS



CARRIER OPTIONS

• AUXILIARY CARRIER Doubles the load capacity and increases pitch and yaw bending moment capacities



SEALING OPTIONS

•**BELLOWS** provides additional protection of mechanical components in dirty environments



SWITCHES

Styles include: reed or hall-effect.

15ft potted cable with flying leads

ERD – ELECTRIC ROD-STYLE ACTUATOR

○ENDURANCE TECHNOLOGY ○

Endurance Technology features are designed for maximum durability to provide extended service life.

The ERD is an economical rod-style electric actuator designed as an alternate to pneumatic cylinders and an option for automating manual processes. The ERD is compatible with many NEMA & metric mount stepper and servo motors to create a flexible, powerful electric actuator solution. Built-to-order in stroke lengths up to 24 inches.



PATENT PENDING

• MULTIPLE SCREW TECHNOLOGIES • YOU CAN CHOOSE:

- •Solid nuts of engineered resins offer quiet performance at the lowest cost
- Ball nuts offer positioning accuracy and repeatability with longer life



THREADED NOSE MOUNT. WITH JAM NUT

- Metric threads
- Convenient mounting for many applications



• MALE THREADED ROD END

- Standard metric threads
- Compatible with many commercially available metric rod end accessories





MAXIMUM
STROKE: 24"
THRUST: 500 lbf
SPEED: 40 in/sec

STAINLESS-STEEL THRUST TUBE

 300 series stainless-steel thrust tube provides high rigidity and corrosion resistance

ONOSE BEARING

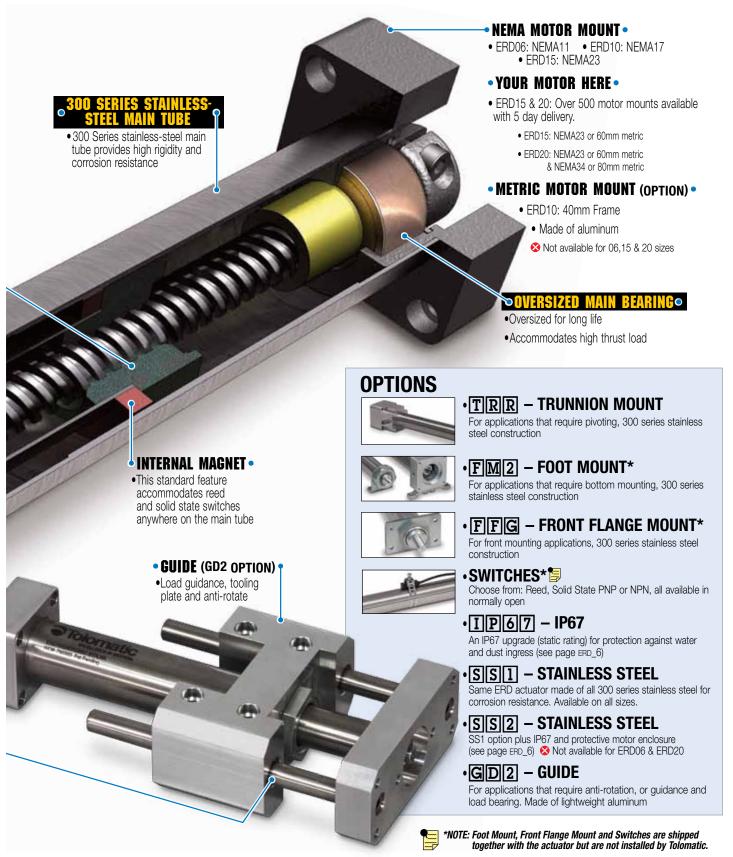
- Engineered resins for smooth operation
- Provides critical support of thrust rod

INTEGRAL GUIDE RODS AND BEARINGS

- •Stainless-steel guide rods provide high rigidity and low deflection
- •Four composite bearings support the load for smooth consistent motion



Tolomatic...MAXIMUM DURABILITY



Sold & Serviced By:

ELECTROMATE

SmartActuator ICR PLUS INTEGRATED CONTROL ROD-STYLE ACTUATOR

Endurance Technology features are designed for maximum durability to provide extended service life. This endurance technology symbol indicates our durability design features.



COMMUNICATION PORTS

- DeviceNet daisy chain up to 63 actuators
- Two ports for easy daisy chain wiring
- Optional CANopen daisy chain up to 127 actuators (CANopen device profile DSP-402)

The SmartActuator is a controller, drive and motor integrated into one compact, durable, lightweight actuator. Designed for simple extend and retract operation the ICR Basic can easily be installed and set up by anyone familiar with pneumatic or hydraulic cylinders. For flexibility, the Plus offers indexer programming and network communication capabilities for a wide variety of demanding applications. Built-to-order in stroke lengths up to 24 inches.

- Oversized ball screw selection for extremely long service life
- Lubricated for life of actuator at the factory with the highest quality synthetic grease



BEARING

Unique nose bearing

material allow smooth

operation and support

of the thrust rod

OINTERNAL BUMPERO

•Bumper protects the screw

damage at the end of stroke

and nut assembly from

MOTOR ORIENTATION

YOU CAN CHOOSE

• LMI In-line option directly couples the driving shaft and is a one-piece housing construction for optimum alignment and support of the motor



• RP Reverse-parallel option minimizes the overall length and offers 1:1 or 2:1 belt ratio

OTHRUST TUBEO

- •Hardened nickel plated steel rod ground and polished for greater durability than stainless steel
- Excellent corrosion resistance from many chemicals and resists incidental contact damage

OTHREADED ROD

- Nickel plated aluminum for corrosion resistance
- Provides a common interface to multiple rod end options

OANTI-ROTATE BEARING

- Engineered resin guide bearings provide anti-rotation of the thrust rod
- Support the thrust tube and nut assembly through entire stroke length

ICR SPECIFICATIONS: pg. 35 SIZES

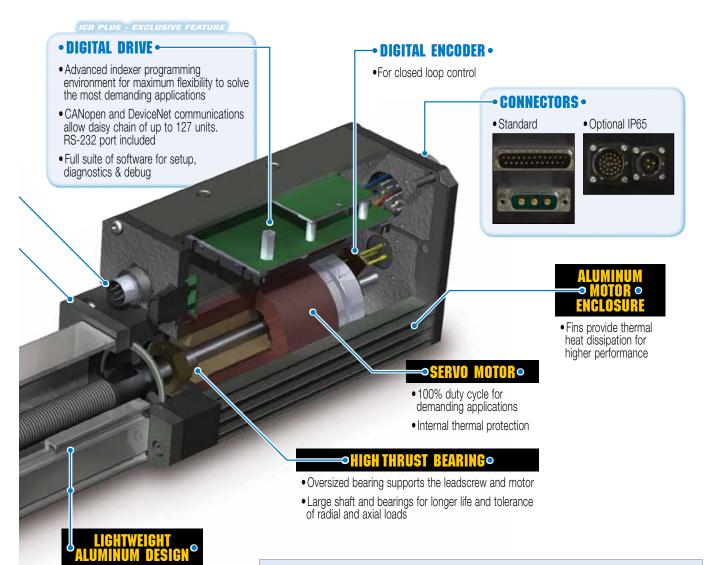
MAXIMUM

STROKE: 24" THRUST: 720 lbf SPEED: 25 in/sec

orod Wiper⊍

 Prevents contaminants from entering the housing for extended life of the actuator

Sold & Serviced By: ELECTROMATE



- •Clear anodized extrusion design is optimized for rigidity and strength
- External switch channels and mounting channels along full length on both sides allow easy placement of position indicating switches and tube clamps/mounting plates

FLEXIBLE MOUNTING •

- Front face and bottom mounting holes are standard
- Options: front flange, plates, tube clamps, trunnions, rear clevis (RP models only)





RSA ROD-STYLE ACTUATOR

ENDURANCE TECHNOLOGY[™]

Endurance Technology features are designed for maximum durability to provide extended service life.

The RSA rod screw actuator is ideal for medium to high thrust applications of guided loads. The compact design and cylinder style operation make this solution ideal for applications that were historically solved with pneumatic or hydraulic power. Many mounting options are available allowing the actuator to be installed in numerous applications.

Built-to-order in stroke lengths up to 60 inches with your choice of screw technology.



MULTIPLE SCREW TECHNOLOGIES

YOU CAN CHOOSE:

- •Solid nuts of bronze or engineered resins offer quiet performance at the lowest cost; anti-backlash available
- •Ball nuts offer efficiency at a cost effective price; lowbacklash available
- •Roller nuts provide the highest thrust and life ratings available







•SCREW SUPPORT BEARING ←

 Engineered resin bearing provides continuous support of screw

othrust tube ←

- •Steel thrust tube supports extremely high force capabilities
- Salt bath nitride treatment provides excellent corrosion resistance, surface hardness and is very resistant to adherence of potential contaminants

OINTERNAL COMPERS

 Bumpers protect the screw and nut assembly from damage at both ends of stroke

• Provides a

• Provides a common interface to multiple rod end options

PECIFICATIONS: pg. 35 SIZES 64 50 32 24 16 12 MAXIMUM

STROKE: 60"

THRUST: 7,350 lbf SPEED: 123 in/sec

OPTIONAL GREASE ZERK

- Provided with roller nut/screw this relubrication system provides extended screw service life
- Convenient lubrication without disassembly

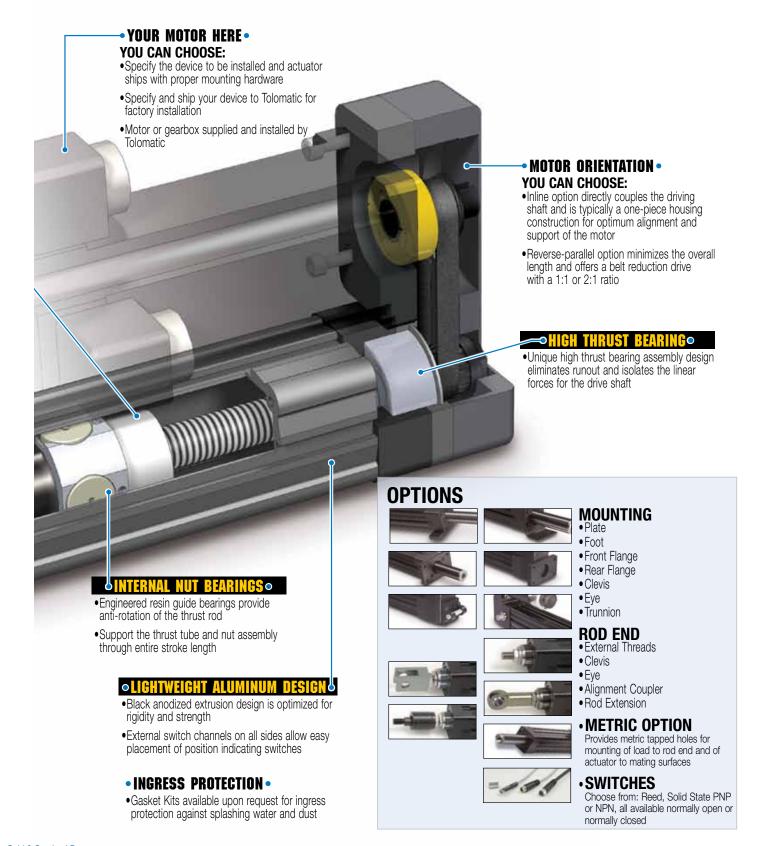
OROD WIPERO

- Prevents contaminants from entering the housing for extended life of the actuator
- Support the thrust tube and nut assembly through entire stroke length

NOSE BEARINGO

 Unique nose bearing material allows for smooth operation and support of the thrust rod







GSA GUIDED ROD-STYLE ACTUATOR

ENDURANCE TECHNOLOGY[™]

Endurance Technology features are designed for maximum durability to provide extended service life.

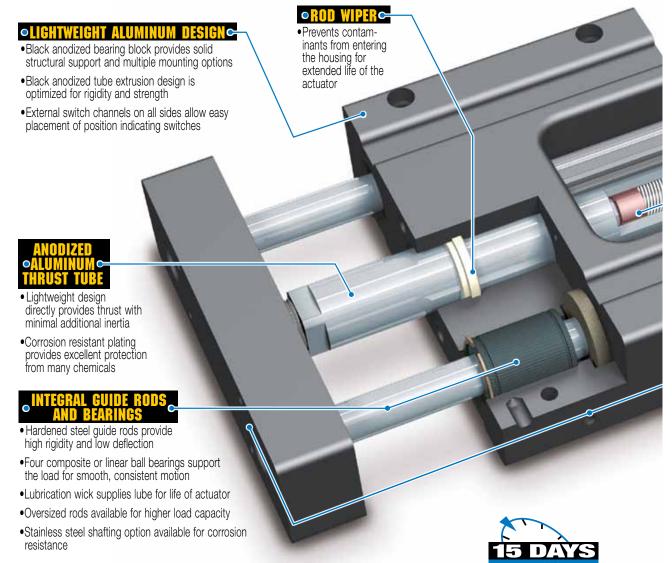
The GSA guided screw actuator is ideal for medium to high thrust applications. The self-contained guided rod design and cylinder slide style operation make this solution ideal for applications requiring guidance and support of the load. A robust, wide tooling plate allows easy mounting of the required end effectors for many applications. Built-to-order in stroke lengths up to 36 inches with your choice of screw technology.

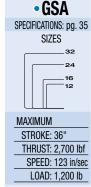
MULTIPLE SCREW TECHNOLOGIES

YOU CAN CHOOSE:

- Solid nuts of bronze or engineered resins offer quiet performance at the lowest cost; anti-backlash available
- •Ball nuts offer efficiency at a cost effective price; low-backlash available
- Roller nuts (available on request) provide the highest thrust and life ratings available

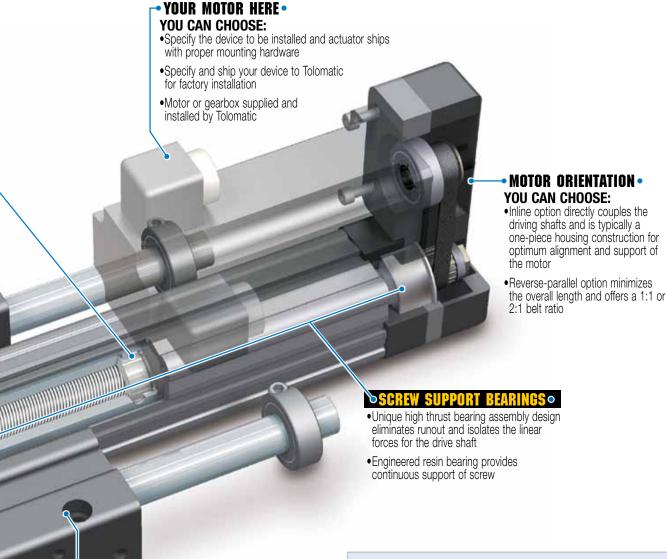






Sold & Serviced By:

ELECTROMATE



SPRECISION MACHINED SURFACES •

- •Extruded bearing housing is precision machined on two surfaces for true and easily aligned linear motion
- •Tooling plate is aligned and assembled to provide a precise mounting surface

INGRESS PROTECTION •

• Gasket Kits available upon request for ingress protection against splashing water and dust

OPTIONS



•OVERSIZED GUIDE RODS

Available for increased load capacity or decreased deflection





Provide a positive stop mechanism when required

·CORROSION RESISTANCE

Includes 316 stainless steel guide rods and fasteners for better environmental protection

METRIC OPTION

Provides metric tapped holes for mounting of load to tooling plate and of actuator to mating surfaces



•SWITCHES

Choose from: Reed, Solid State PNP or NPN, all available normally open or normally closed



IMA INTEGRATED MOTOR ACTUATOR

Endurance Technology features are designed for maximum durability to provide extended service life.

The IMA is a compact, durable, high force rod-style actuator. The IMA integrates a servo motor into a ball or roller screw-driven actuator to provide efficient high force in a compact lightweight design envelope. Our patent-pending design allows for easy re-lubrication without disassembly for extremely long service life. Builtto-order in stroke lengths up to 18 inches with your choice of screw technology.

MULTIPLE SCREW TECHNOLOGIES YOU CAN CHOOSE:

·Ball nuts offer efficiency at a cost effective price

•Roller nuts provide the highest thrust and life ratings available

ointernal bumperso

•Bumpers protect the screw

and nut assembly from damage at end of stroke





HIGH POSITIONAL ACCURACY

SCREW ACCURACY

Roller Nut ± 0.0004 "/ft. ± 0.0102 mm/300mm Ball Nut ± 0.002 "/ft. ± 0.051 mm/300mm

REPLACEABLE BEARING CARTRIDGE

•Doubles as a locating pilot for positioning actuator

 Prevents contaminants from entering the actuator for extended life

•GREASE PORT ○

- Patent pending screw relubrication system provides extended screw service life
- Convenient lubrication without disassembly

INTEGRAL MOUNTING

 Four metric threaded holes on front face are available for direct mounting or addition of customized options

THREADED

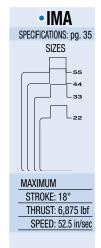
- Zinc plated alloy steel construction for
- Provides a common interface to multiple rod end options

corrosion resistance

THRUST TUBE

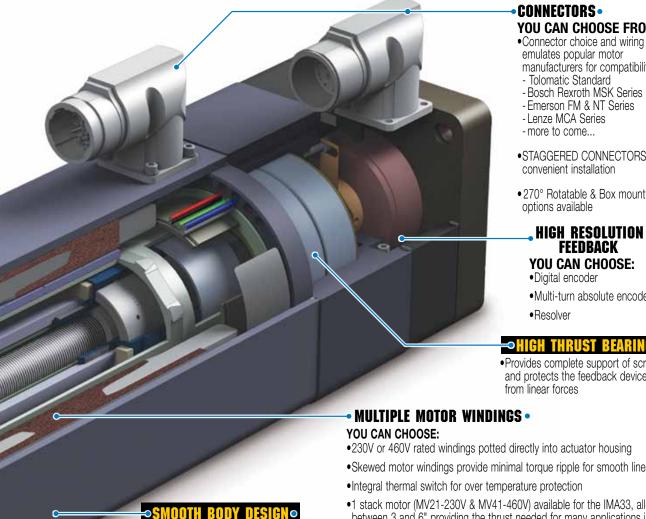
- Steel thrust tube supports extremely high force capabilities
- •Salt bath nitride treatment provides excellent corrosion resistance, surface hardness and is very resistant to adherence of weld slag, water and other potential contaminants

 Black anodized extrusion design is optimized for rigidity and strength





Tolomatic...MAXIMUM DURABILITY



CONNECTORS • YOU CAN CHOOSE FROM:

- emulates popular motor manufacturers for compatibility:
- Tolomatic Standard
- -Bosch Rexroth MSK Series

- •STAGGERED CONNECTORS for convenient installation
- 270° Rotatable & Box mount

HIGH RESOLUTION **FEEDBACK** YOU CAN CHOOSE:

•Multi-turn absolute encoder

⇒HIGH THRUST BEARING○

 Provides complete support of screw and protects the feedback device

- Skewed motor windings provide minimal torque ripple for smooth linear motion
- •1 stack motor (MV21-230V & MV41-460V) available for the IMA33, allows strokes between 3 and 6" providing the thrust needed for many applications in a more compact, lighter weight package



Modifications:

 Contact Tolomatic for white epoxy, stainless steel, food grade or mil-spec versions of the IMA

OPTIONS

• Side Mounting Holes,

2 sides & bottom (no photo)

• Eliminates potential contaminant

collection points

MOUNTING











• Front Flange

• Trunnion, Rear or Front

ROD END

Internal Thread - Standard



• External Threads







IP67 • For protection against water and dust ingress

CABLES

BRAKE



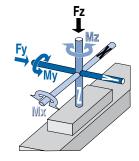
/ electronically released • Signal Cable (6m)

• 24V Spring held

ARO *Anti-Rotate







RODLESS SCREW DRIVE ACTUATORS

| | | | В | BENDING MOMENTS | | | | LOAD | | | | MAX. | | MAX. | | MAX. | |
|---------------------------------------|--------|--------|------|-----------------|------|--------|------|-------|-------|-------|-------|-------|--------|--------|--------|------|-------|
| | | М | X | M | у | M | lz | F | y | F | z | THE | UST | SP | EED | STI | ROKE |
| MODEL | SERIES | in-lbs | N-m | in-lbs | N-m | in-lbs | N-m | lb | Ν | lb | Ν | lbf | N | in/sec | mm/sec | in | mm |
| MXE-S | 16 | 22 | 2.5 | 19 | 2.1 | 25 | 2.8 | _ | _ | 35 | 156 | 45 | 200 | 42 | 1,067 | 31 | 787 |
| | 25 | 60 | 6.8 | 110 | 12.4 | 34 | 3.8 | _ | _ | 70 | 311 | 170 | 756 | 60 | 1,524 | 134 | 3,404 |
| | 32 | 100 | 11.3 | 350 | 39.5 | 140 | 15.8 | _ | _ | 150 | 667 | 170 | 756 | 60 | 1,524 | 133 | 3,378 |
| Standard | 40 | 275 | 31.1 | 600 | 67.8 | 220 | 24.9 | _ | _ | 225 | 1,001 | 800 | 3,559 | 60 | 1,524 | 131 | 3,327 |
| | 50 | 315 | 35.6 | 1,155 | 131 | 341 | 38.5 | _ | _ | 315 | 1,401 | 2,700 | 12,010 | 60 | 1,524 | 178 | 4,521 |
| | 63 | 585 | 66.1 | 2,340 | 264 | 520 | 58.8 | _ | _ | 520 | 2,313 | 4,300 | 19,127 | 50 | 1,270 | 125 | 3,175 |
| | 16-DC | 44 | 5.0 | 175 | 19.8 | 175 | 19.8 | _ | _ | 70 | 311 | 45 | 200 | 42 | 1,067 | 26 | 660 |
| | 25-DC | 120 | 13.6 | 420 | 47.5 | 420 | 47.5 | _ | _ | 140 | 623 | 170 | 756 | 60 | 1,524 | 78 | 1,981 |
| | 32-DC | 200 | 22.6 | 1,050 | 119 | 1,050 | 119 | _ | _ | 300 | 1,335 | 170 | 756 | 60 | 1,524 | 126 | 3,200 |
| Auxiliary Carrier | 40-DC | 550 | 62.1 | 1,913 | 216 | 1,913 | 216 | _ | _ | 450 | 2,002 | 800 | 3,559 | 60 | 1,524 | 122 | 3,099 |
| Auxiliary Garrier | 50-DC | 630 | 71.2 | 2,709 | 306 | 2,709 | 306 | _ | _ | 630 | 2,802 | 2,700 | 12,010 | 60 | 1,524 | 169 | 4,293 |
| | 63-DC | 1,170 | 132 | 6,760 | 764 | 6,760 | 764 | _ | _ | 1,040 | 4,626 | 4,300 | 19,127 | 50 | 1,270 | 112 | 2,845 |
| | | | | | | | | | | | | | | | | | |
| MXE-P | 16 | 39 | 4.4 | 339 | 38.3 | 339 | 38.3 | 217 | 965 | 217 | 965 | 45 | 200 | 42 | 1,067 | 31 | 787 |
| | 25 | 126 | 14.2 | 502 | 56.7 | 377 | 42.6 | 449 | 1,997 | 449 | 1,997 | 170 | 756 | 60 | 1,524 | 134 | 3,404 |
| 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 | 32 | 226 | 25.5 | 1,344 | 152 | 1,344 | 152 | 569 | 2,531 | 569 | 2,531 | 170 | 756 | 60 | 1,524 | 133 | 3,378 |
| Standard | 40 | 600 | 67.8 | 1,913 | 216 | 1,913 | 216 | 736 | 3,274 | 736 | 3,274 | 800 | 3,559 | 60 | 1,524 | 131 | 3,327 |
| | 50 | 811 | 92 | 3,483 | 394 | 3,483 | 394 | 1,014 | 4,511 | 1,014 | 4,511 | 2,700 | 12,010 | 60 | 1,524 | 178 | 4,521 |
| | 63 | 1,019 | 115 | 5,339 | 603 | 5,339 | 603 | 1,292 | 5,747 | 1,292 | 5,747 | 4,300 | 19,127 | 50 | 1,270 | 125 | 3,175 |
| | 16-DC | 79 | 8.9 | 620 | 70.1 | 620 | 70.1 | 434 | 1,931 | 434 | 1,931 | 45 | 200 | 42 | 1,067 | 26 | 660 |
| | 25-DC | 252 | 28.5 | 1,613 | 182 | 1,613 | 182 | 898 | 3,995 | 898 | 3,995 | 170 | 756 | 60 | 1,524 | 78 | 1,981 |
| | 32-DC | 457 | 51.6 | 2,202 | 249 | 2,202 | 249 | 1,138 | 5,062 | 1,138 | 5,062 | 170 | 756 | 60 | 1,524 | 126 | 3,200 |
| Auxiliary Carrier | 40-DC | 1,200 | 136 | 3,601 | 407 | 3,601 | 407 | 1,472 | 6,548 | 1,472 | 6,548 | 800 | 3,559 | 60 | 1,524 | 122 | 3,099 |

2,028

9,021

2,028

2,583 11,490 2,583 11,490 4,300 19,127

9,021

2,700 12,010

60 1,524

50 1,270

169 4,293112 2,845

The values listed are independent maximums for each force or moment load acting upon the actuator carrier. In applications where more than one force is acting upon the carrier, a loading combination factor must be used to determine if the forces are excessive. The Tolomatic sizing software properly applies the loading factor after entering the application's loads and forces. Contact your local distributor or Tolomatic for more information.

9,508 1,074

4,966

561



50-DC

63-DC

1,623

2,038

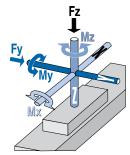
183

230

4,966

561

9,508 1,074



RODLESS SCREW DRIVE ACTUATORS

| | | | В | ENDING | MOMENT | S | | | LOAD | | | | AX. | M | AX. | M | AX. |
|-------------------|--------|--------|-------|--------|--------|--------|-------|-------|--------|-------|--------|-------|--------|--------|--------|-----|-------|
| | | N | lχ | M | y | N | 1z | F | y | F | z | THR | | | EED | | ROKE |
| MODEL | SERIES | in-lbs | N-m | in-lbs | N-m | in-lbs | N-m | lb | N | lb | N | lbf | N | in/sec | mm/sec | in | mm |
| B3S / M3S | 10 | 250 | 28.2 | 269 | 30.4 | 156 | 17.6 | 341 | 1,517 | 591 | 2,629 | 170 | 756 | 60 | 1,524 | 136 | 3,454 |
| | 15 | 859 | 97 | 1,033 | 117 | 596 | 67.3 | 840 | 3,737 | 1,454 | 6,468 | 800 | 3,559 | 60 | 1,524 | 133 | 3,378 |
| Standard | 20 | 1,662 | 188 | 1,472 | 166 | 850 | 96 | 1,159 | 5,156 | 2,008 | 8,932 | 2,700 | 12,010 | 60 | 1,524 | 179 | 4,547 |
| | 10-DC | 500 | 56.5 | 2,825 | 319 | 1,630 | 184 | 682 | 3,034 | 1,182 | 5,258 | 170 | 756 | 60 | 1,524 | 131 | 3,327 |
| | 15-DC | 1,718 | 194 | 11,734 | 1,326 | 6,779 | 766 | 1,680 | 7,473 | 2,908 | 12,936 | 800 | 3,559 | 60 | 1,524 | 125 | 3,175 |
| Auxiliary Carrier | 20-DC | 3,324 | 376 | 16,265 | 1,838 | 9,388 | 1,061 | 2,318 | 10,311 | 4,016 | 17,864 | 2,700 | 12,010 | 60 | 1,524 | 171 | 4,343 |
| 33SD / M3SD | D10 | 657 | 74.2 | 312 | 35.3 | 538 | 60.8 | 1,182 | 5,258 | 682 | 3,034 | 170 | 756 | 60 | 1,524 | 136 | 3,454 |
| | D15 | 2,468 | 279 | 1,192 | 135 | 2,066 | 233 | 2,908 | 12,936 | 1,680 | 7,473 | 800 | 3,559 | 60 | 1,524 | 133 | 3,378 |
| Standard | D20 | 4,527 | 512 | 1,700 | 192 | 2,944 | 333 | 4,016 | 17,864 | 2,318 | 10,311 | 2,700 | 12,010 | 60 | 1,524 | 179 | 4,547 |
| | D10-DC | 1,314 | 149 | 3,328 | 376 | 5,768 | 652 | 2,364 | 10,516 | 1,364 | 6,067 | 170 | 756 | 60 | 1,524 | 131 | 3,327 |
| T. | D15-DC | 4,936 | 558 | 13,558 | 1,532 | 23,468 | 2,652 | 5,816 | 25,871 | 3,360 | 14,946 | 800 | 3,559 | 60 | 1,524 | 125 | 3,175 |
| Auxiliary Carrier | D20-DC | 9,054 | 1,023 | 18,776 | 2,122 | 32,530 | 3,676 | 8,032 | 35,728 | 4,636 | 20,622 | 2,700 | 12,010 | 60 | 1,524 | 171 | 4,343 |
| | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |

| TKS | 10 | 85 | 9.6 | 234 | 26.4 | 234 | 26.4 | 100 | 445 | 100 | 445 | 230 | 1,023 | 30 | 762 | 96 | 2,438 |
|-------------------|-------|-------|------|-------|------|-------|------|-------|-------|-------|-------|-------|--------|----|-------|----|-------|
| | 25 | 721 | 82 | 1,014 | 115 | 915 | 103 | 250 | 1,112 | 250 | 1,112 | 1,590 | 7,073 | 30 | 762 | 96 | 2,438 |
| Standard | 50 | 971 | 110 | 1,442 | 163 | 1,301 | 147 | 500 | 2,224 | 500 | 2,224 | 2,830 | 12,589 | 60 | 1,524 | 96 | 2,438 |
| | 75 | 1,151 | 130 | 1,477 | 167 | 1,332 | 151 | 750 | 3,336 | 750 | 3,336 | 3,260 | 14,501 | 40 | 1,016 | 96 | 2,438 |
| | 10-DC | 170 | 19.2 | 563 | 63.6 | 563 | 63.6 | 200 | 890 | 200 | 890 | 230 | 1,023 | 30 | 762 | 88 | 2,235 |
| | 25-DC | 1,442 | 163 | 1,733 | 196 | 1,733 | 196 | 500 | 2,224 | 500 | 2,224 | 1,590 | 7,073 | 30 | 762 | 88 | 2,235 |
| Auxiliary Carrier | 50-DC | 1,942 | 219 | 3,810 | 431 | 3,810 | 431 | 1,000 | 4,448 | 1,000 | 4,448 | 2,830 | 12,589 | 60 | 1,524 | 88 | 2,235 |
| , | 75-DC | 2,302 | 260 | 3,875 | 438 | 3,875 | 438 | 1,500 | 6,672 | 1,500 | 6,672 | 3,260 | 14,501 | 40 | 1,016 | 88 | 2,235 |

The values listed are independent maximums for each force or moment load acting upon the actuator carrier.

In applications where more than one force is acting upon the carrier, a loading combination factor must be used to determine if the forces are excessive. The Tolomatic sizing software properly applies the loading factor after entering the application's loads and forces. Contact your local distributor or Tolomatic for more information.



RODLESS BELT DRIVE ACTUATORS

| | | | | | | | | | | | | | | \leftarrow | | | |
|-------|--------|--------|-----|--------|--------|--------|-----|----|----|----|---|-----|-------|--------------|-------------|-----|-------|
| | | | В | ENDING | MOMEN1 | S | | | LO | AD | | MA | Y | M | AX. | M | AX. |
| | | N | 1x | M | ly | N | Λz | F | у | F | z | THR | ŬŜT | SP | E ÊD | STI | ROKE |
| MODEL | SERIES | in-lbs | N-m | in-lbs | N-m | in-lbs | N-m | lb | N | lb | N | lbf | Ν | in/sec | mm/sec | in | mm |
| MXB-U | 16 | _ | _ | _ | _ | _ | _ | _ | _ | _ | _ | 38 | 169 | 200 | 5,080 | 230 | 5,842 |
| | 25 | _ | _ | _ | _ | _ | _ | _ | _ | _ | _ | 151 | 672 | 200 | 5,080 | 200 | 5,080 |
| 1000 | 32 | _ | _ | _ | _ | _ | _ | _ | _ | _ | _ | 209 | 930 | 200 | 5,080 | 200 | 5,080 |
| | 40 | _ | _ | _ | _ | _ | _ | _ | _ | _ | _ | 250 | 1,112 | 200 | 5,080 | 200 | 5,080 |
| | 50 | _ | _ | _ | _ | | _ | _ | _ | _ | _ | 325 | 1,446 | 200 | 5,080 | 200 | 5,080 |
| | 63 | | _ | | _ | | _ | | _ | | _ | 418 | 1,859 | 200 | 5,080 | 100 | 2,540 |

| | | | | | | | | _ | | | | | | | | | |
|-------------------|-------|-------|------|-------|-------|-------|-------|-------|--------|-------|--------|-----|-------|-----|-------|-----|-------|
| МХВ-Р | 16 | 39 | 4.4 | 339 | 38.3 | 339 | 38.3 | 217 | 965 | 217 | 965 | 38 | 169 | 150 | 3,810 | 230 | 5,842 |
| | 25 | 126 | 14.2 | 502 | 56.7 | 377 | 42.6 | 449 | 1,997 | 449 | 1,997 | 151 | 672 | 150 | 3,810 | 200 | 5,080 |
| - 6 | 32 | 226 | 25.5 | 1,344 | 152 | 1,344 | 152 | 569 | 2,531 | 569 | 2,531 | 209 | 930 | 150 | 3,810 | 200 | 5,080 |
| Standard | 40 | 600 | 67.8 | 1,913 | 216 | 1,913 | 216 | 736 | 3,274 | 736 | 3,274 | 250 | 1,112 | 150 | 3,810 | 200 | 5,080 |
| | 50 | 811 | 92 | 3,483 | 394 | 3,483 | 394 | 1,014 | 4,511 | 1,014 | 4,511 | 325 | 1,446 | 150 | 3,810 | 200 | 5,080 |
| | 63 | 1,019 | 115 | 5,339 | 603 | 5,339 | 603 | 1,292 | 5,747 | 1,292 | 5,747 | 418 | 1,859 | 150 | 3,810 | 100 | 2,540 |
| | 16-DC | 79 | 8.9 | 620 | 70.1 | 620 | 70.1 | 434 | 1,931 | 434 | 1,931 | 38 | 169 | 150 | 3,810 | 225 | 5,715 |
| | 25-DC | 252 | 28.5 | 1,613 | 182 | 1,613 | 182 | 898 | 3,995 | 898 | 3,995 | 151 | 672 | 150 | 3,810 | 194 | 4,927 |
| No. of | 32-DC | 457 | 51.6 | 2,202 | 249 | 2,202 | 249 | 1,138 | 5,062 | 1,138 | 5,062 | 209 | 930 | 150 | 3,810 | 193 | 4,902 |
| Auxiliary Carrier | 40-DC | 1,200 | 136 | 3,601 | 407 | 3,601 | 407 | 1,472 | 6,548 | 1,472 | 6,548 | 250 | 1,112 | 150 | 3,810 | 191 | 4,851 |
| | 50-DC | 1,623 | 183 | 4,966 | 561 | 4,966 | 561 | 2,028 | 9,021 | 2,028 | 9,021 | 325 | 1,446 | 150 | 3,810 | 191 | 4,851 |
| | 63-DC | 2,038 | 230 | 9,508 | 1,074 | 9,508 | 1,074 | 2,583 | 11,490 | 2,583 | 11,490 | 418 | 1,859 | 150 | 3,810 | 87 | 2,209 |

| B3W | 10 | 250 | 28.2 | 269 | 30.4 | 156 | 17.6 | 341 | 1,517 | 591 | 2,629 | 150 | 667 | 200 | 5,080 | 292 | 7,417 |
|-------------------|--------|-------|-------|--------|-------|--------|-------|-------|--------|-------|--------|-----|-------|-----|-------|-----|-------|
| | 15 | 859 | 97 | 1,033 | 117 | 596 | 67.3 | 840 | 3,737 | 1,454 | 6,468 | 250 | 1,112 | 200 | 5,080 | 204 | 5,182 |
| Standard | 20 | 1,662 | 188 | 1,472 | 166 | 850 | 96 | 1,159 | 5,156 | 2,008 | 8,932 | 325 | 1,446 | 200 | 5,080 | 156 | 3,962 |
| | 10-DC | 500 | 56.5 | 2,825 | 319 | 1,630 | 184 | 682 | 3,034 | 1,182 | 5,258 | 150 | 667 | 200 | 5,080 | 287 | 7,290 |
| - | 15-DC | 1,718 | 194 | 11,734 | 1,326 | 6,779 | 766 | 1,680 | 7,473 | 2,908 | 12,936 | 250 | 1,112 | 200 | 5,080 | 196 | 4,978 |
| Auxiliary Carrier | 20-DC | 3,324 | 376 | 16,265 | 1,838 | 9,388 | 1,061 | 2,318 | 10,311 | 4,016 | 17,864 | 325 | 1,446 | 200 | 5,080 | 148 | 3,759 |
| B3WD | D10 | 657 | 74.2 | 312 | 35.3 | 538 | 60.8 | 1,182 | 5,258 | 682 | 3,034 | 150 | 667 | 200 | 5,080 | 292 | 7,417 |
| | D15 | 2,468 | 279 | 1,192 | 135 | 2,066 | 233 | 2,908 | 12,936 | 1,680 | 7,473 | 250 | 1,112 | 200 | 5,080 | 204 | 5,182 |
| Standard | D20 | 4,527 | 512 | 1,700 | 192 | 2,944 | 333 | 4,016 | 17,864 | 2,318 | 10,311 | 325 | 1,446 | 200 | 5,080 | 156 | 3,962 |
| | D10-DC | 1,314 | 149 | 3,328 | 376 | 5,768 | 652 | 2,364 | 10,516 | 1,364 | 6,067 | 150 | 667 | 200 | 5,080 | 287 | 7,290 |
| 1 | D15-DC | 4,936 | 558 | 13,558 | 1,532 | 23,468 | 2,652 | 5,816 | 25,871 | 3,360 | 14,946 | 250 | 1,112 | 200 | 5,080 | 196 | 4,978 |
| Auxiliary Carrier | D20-DC | 9,054 | 1,023 | 18,776 | 2,122 | 32,530 | 3,676 | 8,032 | 35,728 | 4,636 | 20,622 | 325 | 1,446 | 200 | 5,080 | 148 | 3,759 |

The values listed are independent maximums for each force or moment load acting upon the actuator carrier.

In applications where more than one force is acting upon the carrier, a loading combination factor must be used to determine if the forces are excessive. The Tolomatic sizing software properly applies the loading factor after entering the application's loads and forces. Contact your local distributor or Tolomatic for more information.





| | | | В | ENDING | MOMENT | S | | | LO | AD | | M.A | \Y | M | AX. | M | AX. |
|-------------------|--------|--------|------|--------|--------|--------|------|-------|-------|-------|-------|-----|-------|--------|--------|----|-------|
| | | M | lx | M | у | M | z | F | у | F | z | THR | | SP | EÉD | ST | ROKE |
| MODEL | SERIES | in-lbs | N-m | in-lbs | N-m | in-lbs | N-m | lb | Ν | lb | Ν | lbf | Ν | in/sec | mm/sec | in | mm |
| ТКВ | 10 | 85 | 9.6 | 234 | 26.4 | 234 | 26.4 | 100 | 445 | 100 | 445 | 75 | 334 | 100 | 2,540 | 96 | 2,438 |
| | 15 | 721 | 82 | 1,014 | 115 | 915 | 103 | 250 | 1,112 | 250 | 1,112 | 120 | 534 | 100 | 2,540 | 96 | 2,438 |
| Standard | 50 | 971 | 110 | 1,442 | 163 | 1,301 | 147 | 500 | 2,224 | 500 | 2,224 | 195 | 867 | 100 | 2,540 | 96 | 2,438 |
| | 75 | 1,151 | 130 | 1,477 | 167 | 1,332 | 151 | 750 | 3,336 | 750 | 3,336 | 245 | 1,090 | 100 | 2,540 | 96 | 2,438 |
| | 10-DC | 170 | 19.2 | 563 | 63.6 | 563 | 63.6 | 200 | 890 | 200 | 890 | 75 | 334 | 100 | 2,540 | 88 | 2,235 |
| | 25-DC | 1,442 | 163 | 1,733 | 196 | 1,733 | 196 | 500 | 2,224 | 500 | 2,224 | 120 | 534 | 100 | 2,540 | 88 | 2,235 |
| Auxiliary Carrier | 50-DC | 1,942 | 219 | 3,810 | 431 | 3,810 | 431 | 1,000 | 4,448 | 1,000 | 4,448 | 195 | 867 | 100 | 2,540 | 88 | 2,235 |
| | 75-DC | 2,302 | 260 | 3,875 | 438 | 3,875 | 438 | 1,500 | 6,672 | 1,500 | 6,672 | 245 | 1,090 | 100 | 2,540 | 88 | 2,235 |

ROD STYLE SCREW DRIVE ACTUATORS

| | | MAX. THRUST | | | AX. EED | MAX. STROKE | | |
|-------|-----------------|----------------|--------|--------|------------|----------------|-----|--|
| MODEL | SERIES | lbf | N | in/sec | mm/sec | in | mm | |
| ERD | 06 | 20 | 89 | 40 | 1,016 | 8 | 203 | |
| | 10 | 100 | 445 | 40 | 1,016 | 10 | 254 | |
| | []] 15 | 200 | 890 | 40 | 1,016 | 24 | 610 | |
| | 20 | 500 | 2,224 | 20 | 508 | 24 | 610 | |
| | 25 | 3,300 | 14,679 | 40 | 1,016 | 36 | 914 | |
| | 30 | 4,500 | 20,017 | 40 | 1,016 | 36 | 914 | |

| ICR | | | | | | |
|-----|-----|-------|----|-----|----|-----|
| 20 | 720 | 3,203 | 24 | 609 | 24 | 609 |

| RSA | 12 | 130 | 578 | 123 | 3,124 | 18 | 457 |
|-----|----|-------|--------|-----|-------|----|-------|
| . 3 | 16 | 471 | 2,095 | 123 | 3,124 | 18 | 457 |
| | 24 | 1,700 | 7,562 | 29 | 737 | 24 | 610 |
| | 32 | 3,300 | 14,679 | 50 | 1,270 | 36 | 914 |
| | 50 | 4,109 | 18,278 | 50 | 1,270 | 48 | 1,219 |
| | 64 | 7,350 | 32,695 | 58 | 1,473 | 60 | 1,524 |

| | | M/ THR | AX. UST | | AX. EED | MAX. Stroke | | |
|-------|---------------|-----------|------------|--------|------------|----------------|-----|--|
| MODEL | SERIES | lbf | Ν | in/sec | mm/sec | in | mm | |
| GSA | 12 | 130 | 578 | 123 | 3,124 | 18 | 457 | |
| 94 | 16 | 471 | 2,095 | 123 | 3,124 | 24 | 609 | |
| 450 | 24 | 850 | 3,781 | 29 | 737 | 30 | 762 | |
| | 32 | 2,670 | 11,877 | 50 | 1,270 | 36 | 914 | |

| IMA | 22 | 325 | 1,446 | 28 | 711 | 18 | 457 |
|-----|----|-------|--------|------|-------|----|-----|
| | 33 | 1,700 | 7,562 | 48 | 1,219 | 18 | 457 |
| | 44 | 3,300 | 14,679 | 52.5 | 1,334 | 18 | 457 |
| | 55 | 6,875 | 30,594 | 31.4 | 787 | 18 | 457 |

The values listed are independent maximums for each force or moment load acting upon the actuator carrier.

In applications where more than one force is acting upon the carrier, a loading combination factor must be used to determine if the forces are excessive. The Tolomatic sizing software properly applies the loading factor after entering the application's loads and forces. Contact your local distributor or Tolomatic for more information.



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