

# RODLESS SCREW-DRIVE ELECTRIC ACTUATOR

# B3S

With large bending moment capacity, the B3S utilizes an integral recirculating ball bearing guidance system that provides durable performance and extremely long life.

### MULTIPLE SCREW TECHNOLOGIES

#### YOU CAN CHOOSE:

- Solid nuts of bronze or engineered resins offer quiet performance at the lowest cost; anti-backlash available
- Ball screws offer positioning accuracy and repeatability with longer life; low-backlash available



### LOAD-BEARING CARRIER DESIGN

Load and moments are transmitted directly to the actuator bearing system

### SCREW SUPPORT BEARINGS

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

### YOUR MOTOR HERE

#### YOU CAN CHOOSE:

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

### RECIRCULATING BALL BEARING SYSTEM



- Unique design incorporates hardened steel raceways integral to the aluminum extrusion providing optimum preload and smooth performance
- Recirculating ball bearing system provides guidance, high efficiency and durability

### STAINLESS STEEL SEALING BAND

IP44 protection prevents contaminants from entering the screw and nut area for extended performance

### Available Options:

#### Carrier Options

Auxiliary Carrier; Dual 180° Carrier

#### Mounting Options

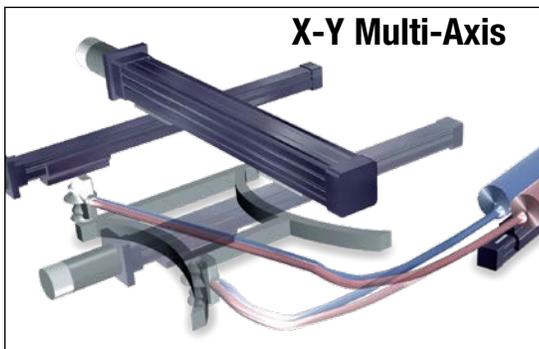
Surface Mount; Tube Supports; Mounting Plates

#### Metric Option

Provides metric tapped holes

#### Sensors

With integrated mounting bracket



X-Y Multi-Axis

### Applications:

- Adhesive dispensing
- Aligning
- Animation
- Assembly
- Automotive
- Camera positioning
- Conveyors
- Cutting
- Diverters
- Inspection
- Laser marking
- Material cutting
- Milling
- Packaging equipment
- Parts transfer
- Pick & place
- Positioning
- Product handling
- Slitting
- Sorting
- Spraying
- Stacking
- Table positioning
- Test stations
- Wire winding

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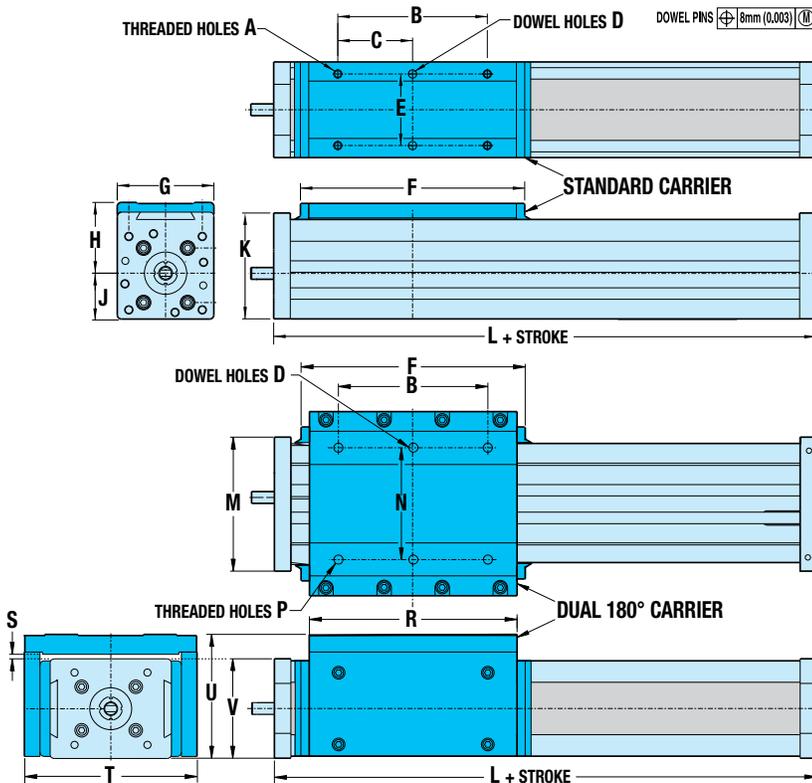
## SPECIFICATIONS

# B3S

CARRIER	SIZE	MAXIMUM BENDING MOMENTS						MAX. LOAD				MAX. THRUST			
		M <sub>x</sub>		M <sub>y</sub>		M <sub>z</sub>		F <sub>y</sub>		F <sub>z</sub>		Solid Nut		Ball Screw	
		N-m	in-lbs	N-m	in-lbs	N-m	in-lbs	N	lb	N	lb	N	lbf	N	lbf
Standard	10	28.2	250	30.4	269	17.6	156	1517	341	2629	591	800	170	1800	410
	15	97	859	117	1033	67	596	3737	840	6468	1454	1400	300	7300	800
	20	188	1662	166	1472	96	850	5155	1159	8932	2008	1400	300	11700	2700
Dual 180°	10	74	657	35.3	312	61	538	5258	1182	3034	682	800	170	1800	410
	15	279	2468	135	1192	233	2066	12935	2908	7473	1680	1400	300	7300	800
	20	512	4527	192	1700	333	2944	17864	4016	10311	2318	1400	300	11700	2700

NOTE: Auxiliary Carrier option increases maximum bending moments and load, see B3 brochure 3600-4176 for complete details.

## Dimensions



	10	15	20
<b>A</b>	M6-1.0 9.4 DP	M6-1.0 10.2 DP	M8-1.25 14.2 DP
<b>B</b>	57.15	114.3	120.65
<b>C</b>	28.58	57.15	60.33
<b>D</b>	6.045/ 6.4 DP	6.045/ 6.4 DP	6.045/ 6.4 DP
<b>E</b>	45.24	54.76	79.30
<b>F</b>	103.6	171.5	184.1
<b>G</b>	57.2	73.0	107.9
<b>H</b>	39.1	53.4	67.5
<b>J</b>	20.6	34.7	45.2
<b>K</b>	56.4	80.8	106.6
<b>L</b>	142.8	213.8	267.2
<b>L*</b>	193.6	-	-
<b>M</b>	72.9	102.6	133.4
<b>N</b>	61.90	85.73	130.18
<b>P</b>	M6-1.0 THRU	M8-1.25 THRU	M10-1.5 THRU
<b>R</b>	93.2	158.5	171.5
<b>S</b>	3.6	3.6	3.2
<b>T</b>	109.5	152.4	188.2
<b>U</b>	71.8	94.9	122.7
<b>V</b>	57.2	76.2	108.0

Dimensions in millimeters  
For reference only. Use CAD files for  
any critical dimensions  
\* = L Maximum



MADE IN U.S.A.

# Tolomatic

EXCELLENCE IN MOTION

COMPANY WITH  
QUALITY SYSTEM  
CERTIFIED BY DNV  
= ISO 9001 =  
Certified site: Hamel, MN

### USA - Headquarters

**Tolomatic Inc.**  
3800 County Road 116  
Hamel, MN 55340, USA  
**Phone:** (763) 478-8000  
Toll-Free: **1-800-328-2174**  
sales@tolomatic.com  
[www.tolomatic.com](http://www.tolomatic.com)

### MEXICO

**Centro de Servicio**  
Parque Tecnológico Innovación  
Int. 23, Lateral Estatal 431,  
Santiago de Querétaro,  
El Marqués, México, C.P. 76246  
**Phone:** +1 (763) 478-8000  
help@tolomatic.com

### EUROPE

**Tolomatic Europe GmbH**  
Elisabethenstr. 20  
65428 Rüsselsheim  
Germany  
**Phone:** +49 6142 17604-0  
help@tolomatic.eu  
[www.tolomatic.com/de-de](http://www.tolomatic.com/de-de)

### CHINA

**Tolomatic Automation Products  
(Suzhou) Co. Ltd.**  
No. 60 Chuangye Street, Building 2  
Huqiu District, SND Suzhou  
Jiangsu 215011 - P.R. China  
**Phone:** +86 (512) 6750-8506  
Tolomatic\_China@tolomatic.com

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