

# RODLESS BELT-DRIVE ELECTRIC ACTUATOR B3W

With large bending moment capacity, the B3W utilizes an integral recirculating ball bearing guidance system that provides durable performance and extremely long life.

### OVERSIZED PULLEY BEARINGS

Drive shaft assembly incorporates sealed ball bearings for complete support of the increased belt tension at high speeds

### STAINLESS STEEL SEALING BAND

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

### LOAD-BEARING CARRIER DESIGN

Load and moments are transmitted directly to the actuator bearing system

### 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

### 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

### 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
- Direct or reduction drive mounting

### MULTIPLE BELT TECHNOLOGIES

#### YOU CAN CHOOSE:

- Polyurethane steel-cord reinforced HTD style belt (standard)
- Polyurethane Kevlar reinforced HTD style belt



### Available Options:

#### Carrier Options

Auxiliary Carrier; Dual 180° Carrier

#### Mounting Options

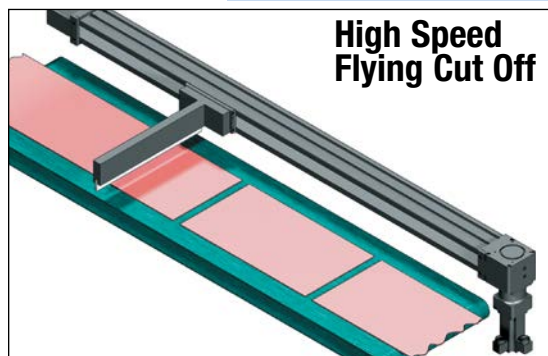
Surface Mount; Tube Supports; Mounting Plates

#### Metric Option

Provides metric tapped holes

#### Sensors

With integrated mounting bracket



**High Speed Flying Cut Off**

### 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
- X-Y Gantry/ Multi-Axis

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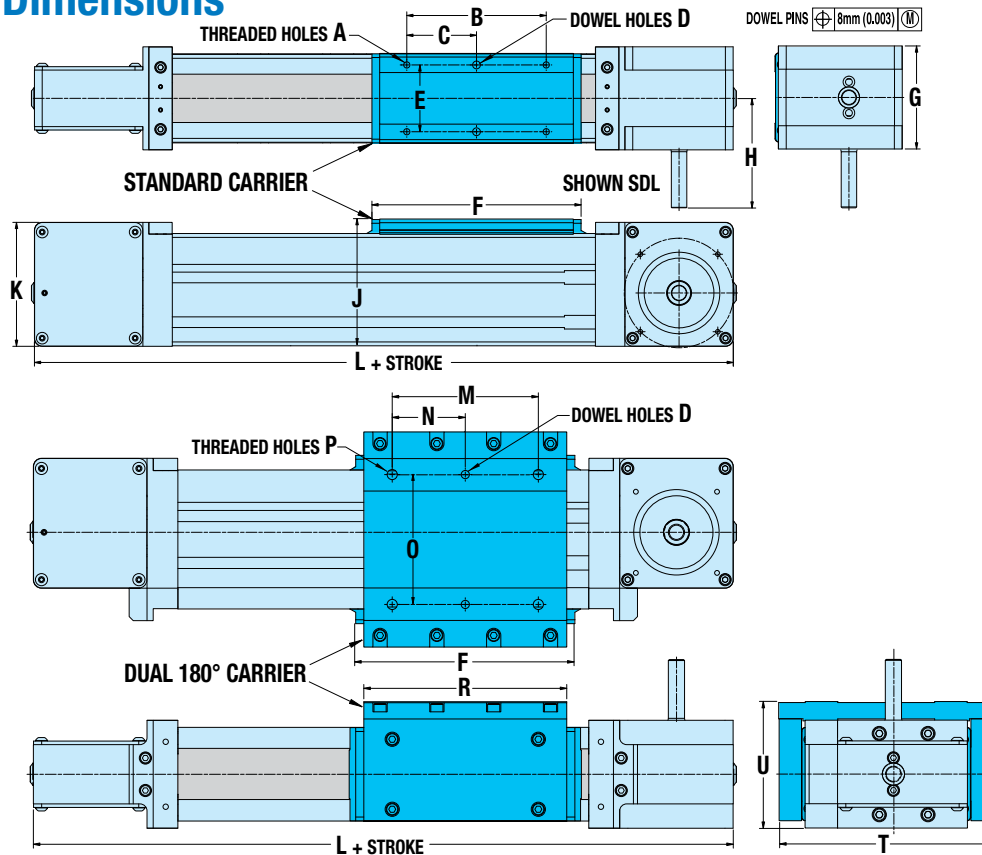
## SPECIFICATIONS

# B3W

| 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> |      | N           |     |
|           |      | N-m                     | in-lbs | N-m            | in-lbs | N-m            | in-lbs | N              | lb   | N              | lb   | N           | lbf |
| Standard  | 10   | 28.2                    | 250    | 30.4           | 269    | 17.6           | 156    | 1517           | 341  | 2629           | 591  | 667         | 150 |
|           | 15   | 97                      | 859    | 117            | 1033   | 67             | 596    | 3737           | 840  | 6468           | 1454 | 1112        | 250 |
|           | 20   | 188                     | 1662   | 166            | 1472   | 96             | 850    | 5155           | 1159 | 8932           | 2008 | 1440        | 325 |
| Dual 180° | 10   | 74                      | 657    | 35.3           | 312    | 61             | 538    | 5258           | 1182 | 3034           | 682  | 667         | 150 |
|           | 15   | 279                     | 2468   | 135            | 1192   | 233            | 2066   | 12935          | 2908 | 7473           | 1680 | 1112        | 250 |
|           | 20   | 512                     | 4527   | 192            | 1700   | 333            | 2944   | 17864          | 4016 | 10311          | 2318 | 1440        | 325 |

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

## Dimensions



|   | 10                        | 15                        | 20                        |
|---|---------------------------|---------------------------|---------------------------|
| A | M6-1.0<br>9.4 DP          | M6-1.0<br>10.2 DP         | M8-1.25<br>14.2 DP        |
| B | 57.15                     | 114.3                     | 120.65                    |
| C | 28.58                     | 57.15                     | 60.33                     |
| D | 6.045/<br>6.020<br>6.4 DP | 6.045/<br>6.020<br>6.4 DP | 6.045/<br>6.020<br>6.4 DP |
| E | 45.24                     | 54.76                     | 79.30                     |
| F | 103.6                     | 171.5                     | 184.1                     |
| G | 57.2                      | 73.0                      | 107.9                     |
| H | 76.1                      | 89.7                      | 98.3                      |
| J | 82.0                      | 104.3                     | 117.9                     |
| K | 79.4                      | 101.6                     | 114.3                     |
| L | 316.2                     | 420.2                     | 431.6                     |
| M | 77.77                     | 114.30                    | 152.40                    |
| N | 38.89                     | 57.15                     | 76.20                     |
| O | 82.55                     | 101.60                    | 136.53                    |
| P | M6-1.0<br>6.4 DP          | M8-1.25<br>15.0 DP        | M10-1.5<br>16.8 DP        |
| R | 93.3                      | 158.8                     | 171.5                     |
| T | 131.1                     | 168.3                     | 192.8                     |
| U | 72.6                      | 99.0                      | 119.5                     |

Dimensions in millimeters  
For reference only. Use CAD files for  
any critical dimensions

**Tolomatic**<sup>TM</sup>  
EXCELLENCE IN MOTION

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

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