



# igus XYZ Gantries Overview

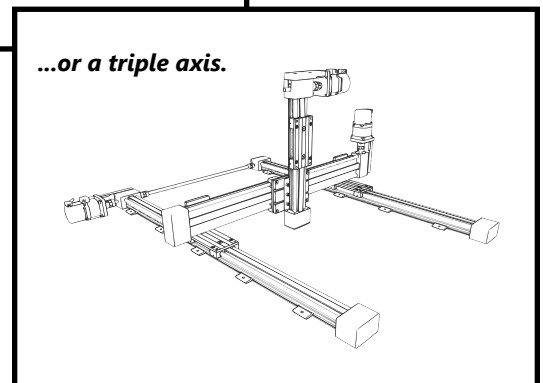
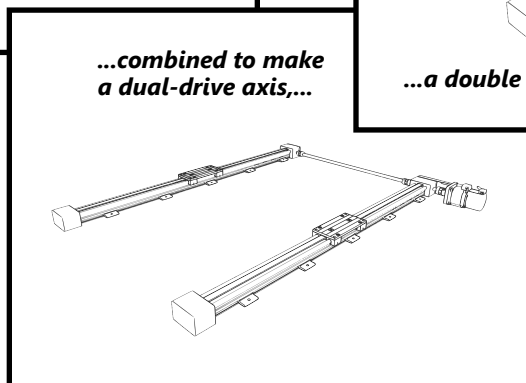
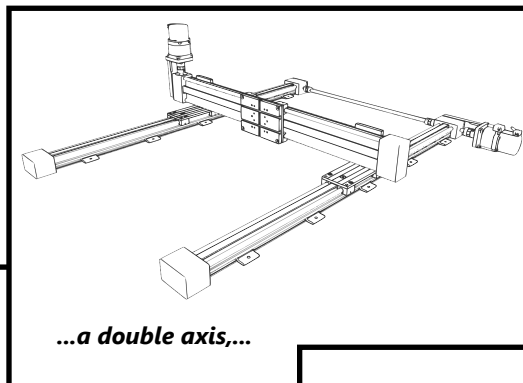
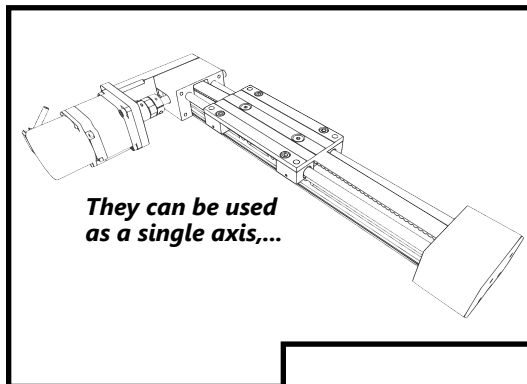
## Features:

- Maintenance and Lubrication free
- Base/Rail material: 6061-T6 Aluminum with hard anodize finish
- Carriage Block Bushing Material: Drylin® iglide®-J
- Drive Type: Belt Drive or Lead Screw
- Adjustable Carriage Block Clearance
- Stackable and easy to assemble
- T-slots enable limit switches to be positioned anywhere
- Up to 1,000 mm Stroke
- Motor mounts for SureServo servo motors and SureStep stepper motors



## Configurations

igus linear actuators can be mounted in any orientation. However, overhead provides the best protection against contamination.

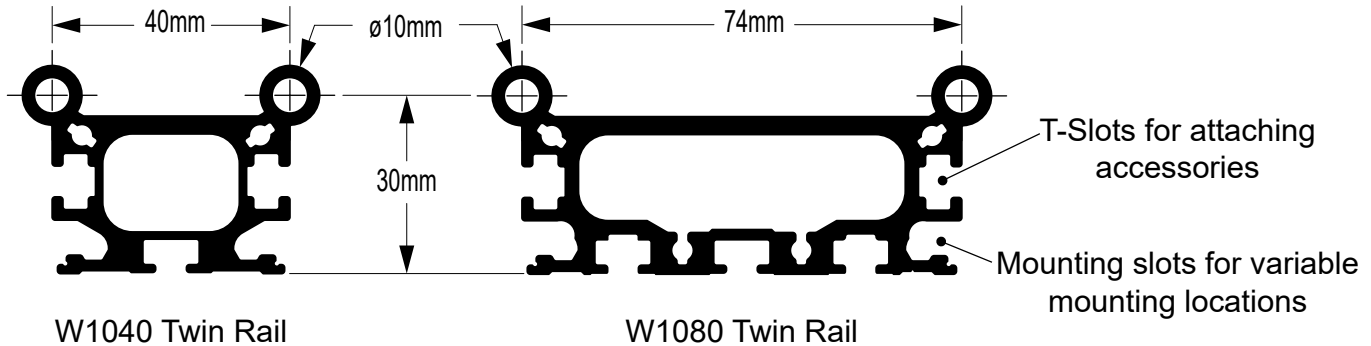




# igus XYZ Gantries Overview

## Rail Sizes

igus linear actuators are available in 2 rail sizes: W1040 and W1080.



## Drive Types

igus linear actuators are available in 2 drive types: ZLW (Belt Driven) and SAW (Lead Screw Driven).



**ZLW1040S-2**  
(Belt Driven)

### ZLW1040 & ZLW1080

- Belt Drive
- Max Linear Speed: 1.5 m/s [4.92 ft/s]
- Max Stroke: 1000mm
- Available Accessories
  - Servo Motor Brackets
  - Stepper Motor Brackets
  - XY Plate
  - YZ Plate
  - Dual X connecting Drive Shaft
  - Sensor Bracket
  - Replacement Carriage Block Liners



**SAW1040-2-B**  
(Lead Screw Driven)

### SAW1040 & SAW1080

- Lead Screw Drive
- Max Linear Speed: 0.15 m/s [0.49 ft/s]
- Max Stroke: 750mm
- Available Accessories
  - Servo Motor Brackets
  - Stepper Motor Brackets
  - XY Plate
  - YZ Plate
  - Sensor Bracket
  - Replacement Carriage Block Liners
  - Replacement Lead Nut

# igus XYZ Gantries

## ZLW Series (Belt Driven)

- Rail Material: 6061-T6 Aluminum, with Hard Anodize coating
- Carriage Block Bearing Material: iglide® J
- Belt Material: Polyurethane with steel cords, AT5 x 16mm wide
- ZLW1040 has Dual Input shafts, Ø10 mm
- ZLW1080 has Single Input shaft, Ø10 mm
- Adjustable clearance carriage blocks
- 8 T-slot nuts pre-installed, M5-0.8
- Mounting Clamps included



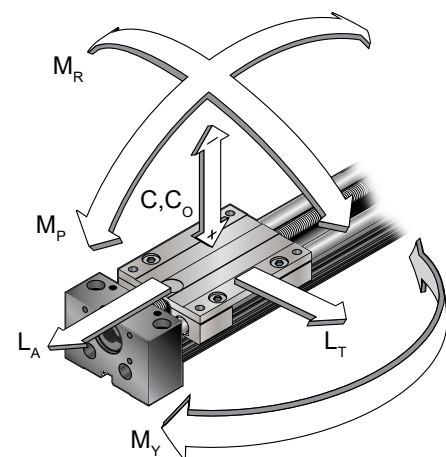
**ZLW1040S-2**

**ZLW1080S-2**

ZLW Series Linear Actuators (Belt Driven)											
Part Number	Price	Stroke (mm)	Mass (kg)	Backlash (in [mm])	Efficiency	Pitch (in/rev [mm/rev])	Max Linear Speed (ft/sec [m/sec])	Linear Position Accuracy (in [mm])	Linear Position Repeatability (in [mm])	Idle Torque (Nm)	Drawing Links
<a href="#">ZLW1040S-10</a>	\$500.00	1,000	1.8	0.008 [0.2]	83%	2.76 [70]	4.92 [1.5]	0.008 [0.2]	0.008 [0.2]	0.3	<a href="#">PDF</a>
<a href="#">ZLW1040S-2</a>	\$422.00	200	1.54								<a href="#">PDF</a>
<a href="#">ZLW1040S-3</a>	\$450.00	300	1.68								<a href="#">PDF</a>
<a href="#">ZLW1040S-4</a>	\$476.00	400	1.82								<a href="#">PDF</a>
<a href="#">ZLW1040S-5</a>	\$450.00	500	1.96								<a href="#">PDF</a>
<a href="#">ZLW1040S-6</a>	\$465.00	600	2.24								<a href="#">PDF</a>
<a href="#">ZLW1040S-8</a>	\$480.00	800	2.52								<a href="#">PDF</a>
<a href="#">ZLW1080S-10</a>	\$665.00	1,000	1.05								0.008 [0.2]
<a href="#">ZLW1080S-2</a>	\$620.00	200	2.01	<a href="#">PDF</a>							
<a href="#">ZLW1080S-3</a>	\$630.00	300	2.22	<a href="#">PDF</a>							
<a href="#">ZLW1080S-4</a>	\$635.00	400	2.43	<a href="#">PDF</a>							
<a href="#">ZLW1080S-5</a>	\$640.00	500	2.64	<a href="#">PDF</a>							
<a href="#">ZLW1080S-6</a>	\$650.00	600	3.06	<a href="#">PDF</a>							
<a href="#">ZLW1080S-8</a>	\$660.00	800	3.48	<a href="#">PDF</a>							

ZLW Series Linear Actuators (Belt Driven) Load Ratings		
Part Number	ZLW1040S-xx	ZLW1080S-xx
Dynamic Load Rating, $C$ (lbf [N])	112.41 [500]	
Static Load Rating, $C_o$ (lbf [N])	1079.14 [4800]	
Reverse Static Load Rating, $-C_o$ (lbf [N])	224.82 [1000]	
Lateral Load Rating, $L_T$ (lbf [N])	1079.14 [4800]	
Axial Load Rating, $L_A$ (lbf [N])	16.86 [75]	
Pitch Moment Rating, $M_P$ (lb-ft [N-m])	213.86 [290]	
Yaw Moment Rating, $M_Y$ (lb-ft [N-m])	125.37 [170]	213.86 [290]
Roll Moment Rating, $M_R$ (lb-ft [N-m])	70.8 [96]	131.27 [178]

Note: The end blocks should not be used as a mechanical stop. A buffer distance of 1 motor shaft revolution is recommended.



# igus XYZ Gantries

## SAW Series (Lead Screw Driven)

- Rail Material: 6061-T6 Aluminum, with Hard Anodize coating
- Carriage Block Bearing Material: iglide® J
- Lead Screw Material: 300 series Stainless Steel
- Lead Nut Material: iglide® J
- Adjustable clearance carriage blocks
- 8 T-slot nuts pre-installed, M5-0.8
- Mounting Clamps included



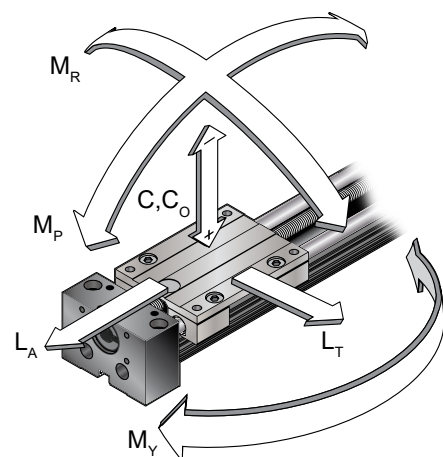
**SAW1040-2-B**

**SAW1080-2-A**

SAW Series Linear Actuators (Lead Screw Driven)											
Part Number	Price	Stroke (mm)	Mass (kg)	Backlash (in [mm])	Efficiency	Pitch (in/rev [mm/rev])	Max Linear Speed (ft/sec [m/sec])	Linear Position Accuracy (in [mm])	Linear Position Repeatability (in [mm])	Idle Torque (Nm)	Drawing Links
<a href="#">SAW1040-05-B</a>	\$355.00	50	1.1	0.004 [0.1]	67%	0.98 [25]	1.15 [0.35]	0.004 [0.1]	0.004 [0.1]	0.2	<a href="#">PDF</a>
<a href="#">SAW1040-1.5-B</a>	\$370.00	150	1.2				1.31 [0.4]				<a href="#">PDF</a>
<a href="#">SAW1040-1-B</a>	\$360.00	100	1.15				0.49 [0.15]				<a href="#">PDF</a>
<a href="#">SAW1040-2-B</a>	\$375.00	200	1.3				<a href="#">PDF</a>				
<a href="#">SAW1040-3-B</a>	\$385.00	300	2.9				<a href="#">PDF</a>				
<a href="#">SAW1080-1.5-A</a>	\$638.00	150	3.1	0.004 [0.1]	67%	0.98 [25]	0.49 [0.15]	0.004 [0.1]	0.004 [0.1]	0.3	<a href="#">PDF</a>
<a href="#">SAW1080-1-A</a>	\$630.00	100	3								<a href="#">PDF</a>
<a href="#">SAW1080-2-A</a>	\$637.00	200	3.3								<a href="#">PDF</a>
<a href="#">SAW1080-3-A</a>	\$651.00	300	3.5								<a href="#">PDF</a>
<a href="#">SAW1080-4-A</a>	\$675.00	400	3.7								<a href="#">PDF</a>
<a href="#">SAW1080-5-A</a>	\$700.00	500	3.9								<a href="#">PDF</a>
<a href="#">SAW1080-6-A</a>	\$725.00	600	4.1								<a href="#">PDF</a>
<a href="#">SAW1080-7.5-A</a>	\$750.00	750	4.5								<a href="#">PDF</a>

SAW Series Linear Actuators (Lead Screw Driven) Load Ratings		
Part Number	SAW1080-xx	SAW1040-xx
Dynamic Load Rating, $C$ (lbf [N])	168.62 [750]	
Static Load Rating, $C_o$ (lbf [N])	1079.14 [4800]	
Reverse Static Load Rating, $-C_o$ (lbf [N])	224.82 [1000]	
Lateral Load Rating, $L_T$ (lbf [N])	1079.14 [4800]	
Axial Load Rating, $L_A$ (lbf [N])	44.96 [200]	56.21 [250]
Pitch Moment Rating, $M_P$ (lb-ft [N-m])	213.86 [290]	125.37 [170]
Yaw Moment Rating, $M_Y$ (lb-ft [N-m])	213.86 [290]	125.37 [170]
Roll Moment Rating, $M_R$ (lb-ft [N-m])	131.27 [178]	70.8 [96]

Note: The end blocks should not be used as a mechanical stop. A buffer distance of 1 motor shaft revolution is recommended.



## Motor Brackets

- Material: Aluminum
- Open frame for ease of assembly
- Available sizes for Stepper and Server motors

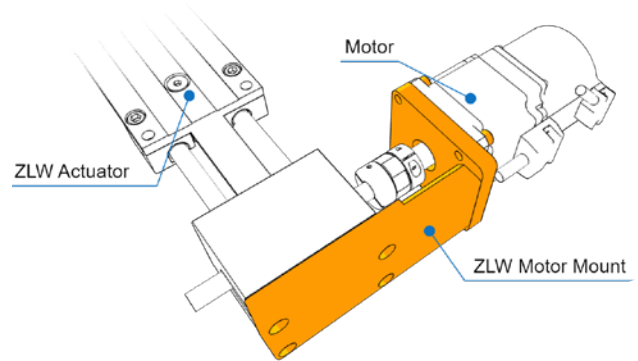
igus ZLW Motor Brackets					
Part Number	Price	Fits Motor	Recommended ADC Coupling Parts*		Drawing Links
			1040	1080	
<a href="#">STP17-ZLW</a>	\$145.00	NEMA 17 stepper motors	<a href="#">SJCA-30C-5</a> <a href="#">SJCA-30C-10</a> <a href="#">SJC-30-RD-SLEEVE</a>		<a href="#">PDF</a>
<a href="#">STP23-ZLW</a>	\$145.00	NEMA 23 stepper motors	<a href="#">SJCA-30C-6.35</a> <a href="#">SJCA-30C-10</a> <a href="#">SJC-30-RD-SLEEVE</a>		<a href="#">PDF</a>
<a href="#">SVL201-ZLW</a>	\$175.00	<a href="#">SVL-201</a> <a href="#">SVL-201B</a> <a href="#">SV2L-201B</a> <a href="#">SV2L-201N</a>	<a href="#">SJCA-30C-8</a> <a href="#">SJCA-30C-10</a> <a href="#">SJC-30-RD-SLEEVE</a>		<a href="#">PDF</a>
<a href="#">SVL202-ZLW</a>	\$250.00	<a href="#">SVL-202</a> <a href="#">SVL-202B</a> <a href="#">SV2L-202B</a> <a href="#">SV2L-202N</a>	<a href="#">SJCA-30C-14</a> <a href="#">SJCA-30C-10</a> <a href="#">SJC-30-RD-SLEEVE</a>		<a href="#">PDF</a>

Includes Mounting Hardware.

\*Drive coupling parts sold separately. 2 coupling jaws and 1 spider required for complete coupling subassembly.



**SVL201-ZLW**



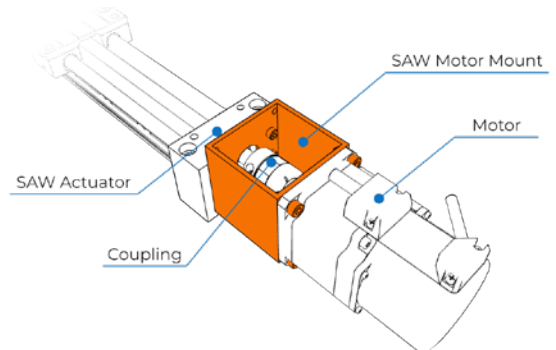
igus SAW Motor Brackets					
Part Number	Price	Fits Motor	Recommended ADC Coupling Parts*		Drawing Links
			1040	1080	
<a href="#">STP17-SAW</a>	\$115.00	NEMA 17 stepper motors	<a href="#">SJCA-30C-5</a> <a href="#">SJCA-30C-10</a> <a href="#">SJC-30-RD-SLEEVE</a>	<a href="#">SJCA-30C-5</a> <a href="#">SJCA-30C-8</a> <a href="#">SJC-30-RD-SLEEVE</a>	<a href="#">PDF</a>
<a href="#">STP23-SAW</a>	\$115.00	NEMA 23 stepper motors	<a href="#">SJCA-30C-6.35</a> <a href="#">SJCA-30C-10</a> <a href="#">SJC-30-RD-SLEEVE</a>	<a href="#">SJCA-30C-6.35</a> <a href="#">SJCA-30C-8</a> <a href="#">SJC-30-RD-SLEEVE</a>	<a href="#">PDF</a>
<a href="#">SVL201-SAW</a>	\$140.00	<a href="#">SVL-201</a> <a href="#">SVL-201B</a> <a href="#">SV2L-201B</a> <a href="#">SV2L-201N</a>	<a href="#">SJCA-30C-8</a> <a href="#">SJCA-30C-10</a> <a href="#">SJC-30-RD-SLEEVE</a>	<a href="#">SJCA-30C-8 (x2)</a> <a href="#">SJC-30-RD-SLEEVE</a>	<a href="#">PDF</a>
<a href="#">SVL202-SAW</a>	\$125.00	<a href="#">SVL-202</a> <a href="#">SVL-202B</a> <a href="#">SV2L-202B</a> <a href="#">SV2L-202N</a>	<a href="#">SJCA-30C-10</a> <a href="#">SJCA-30C-14</a> <a href="#">SJC-30-RD-SLEEVE</a>	<a href="#">SJCA-30C-14</a> <a href="#">SJCA-30C-8</a> <a href="#">SJC-30-RD-SLEEVE</a>	<a href="#">PDF</a>

Includes Mounting Hardware.

\*Drive coupling parts sold separately. 2 coupling jaws and 1 spider required for complete coupling subassembly.



**SVL201-SAW**



## Mounting Brackets

- Material: Aluminum
- Mounts directly to Carriage Plate

igus Mounting Brackets					
Part Number	Price	Description	Holds Linear Actuator	Fits Linear Actuator Carriage Plate	Drawing Links
<b>A-SWY108003150</b>	\$136.00	Y or Z Adapter Plate (Qty. 2)	ZLW1040 and SAW1040	ZLW1080 and SAW1080 series actuators.	<a href="#">PDF</a>
<b>A-AK-0026</b>	\$155.00	Y Mounting Bracket (Qty. 2)	ZLW080 and SAW1080	ZLW1040 and SAW1040 series actuators.	<a href="#">PDF</a>
<b>A-ZSY-104026</b>	\$3.50	Mounting Clamp (Qty. 2)*	All ZLW and SAW series actuators.	All ZLW and SAW series actuators.	<a href="#">PDF</a>

Includes Mounting Hardware.  
\*Mounts to Y or Z Adapter Plate.



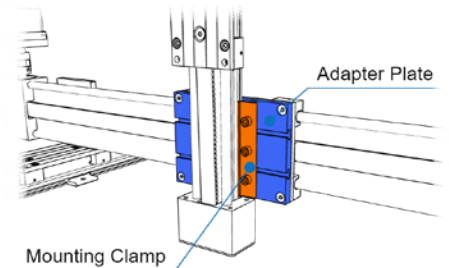
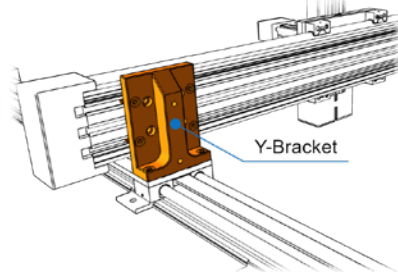
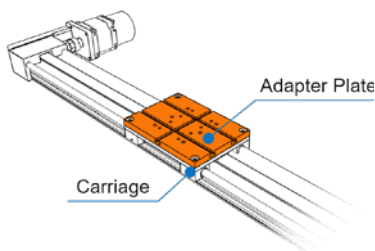
**A-SWY108003150**



**A-AK-0026**



**A-ZSY-104026**





# igus XYZ Gantries

## Accessories

igus Accessories							
Part Number	Price	Description	Material	For Use With	Qty	Photo	Drawing Links
<a href="#"><u>A-AWM-10-1000</u></a>	\$33.00	Drylin R Series Shaft: round connecting, 10mm diameter, 1000mm length	6060/6061 aluminum	All ZLW series actuators	1		<a href="#"><u>PDF</u></a>
<a href="#"><u>A-AWM-10-500</u></a>	\$15.00	Drylin R Series Shaft: round connecting, 10mm diameter, 500mm length	6060/6061 aluminum	All ZLW series actuators	1		<a href="#"><u>PDF</u></a>
<a href="#"><u>A-KSTM-10</u></a>	\$6.00	Igubal K Series Mounted Spherical Bearing: 10mm inside diameter, pillow block	Ball: Type L280 polymer Housing:	Drylin R series 10mm shafts	1		<a href="#"><u>PDF</u></a>
<a href="#"><u>A-JUME-01-10</u></a>	\$4.50	Bearing Liner: for ZLW1040 and ZLW1080 series actuators	iglide® J	ZLW1040 and ZLW1080 series actuators	4		N/A
<a href="#"><u>A-NOR-20634</u></a>	\$2.50	M5 Slot Nut: for all ZLW and SAW series actuators	zinc plated steel	All ZLW and SAW series actuators	8		<a href="#"><u>PDF</u></a>
<a href="#"><u>IGUS-SENSBKT</u></a>	\$25.00	Sensor Bracket: for all ZLW and SAW series actuators	anodized aluminum	All ZLW and SAW series actuators  Compatible Sensors: <a href="#"><u>P8-AN-2A</u></a> , <a href="#"><u>P8-AP-2F</u></a> , <a href="#"><u>P8-CP-2E</u></a>	1		<a href="#"><u>PDF</u></a>
<a href="#"><u>NUT1040-25</u></a>	\$27.00	Lead Nut: for SAW1040 series actuators	iglide® J	SAW1040 series actuators	1		N/A
<a href="#"><u>NUT1080-25</u></a>	\$65.00	Lead Nut: for SAW1080 series actuators	iglide® J	SAW1080 series actuators	1		N/A

Includes Mounting Hardware.

