

# YLE series

Closed loop stepping motor electric actuator

## Mix-and-match from wide selections

TYPE: 6  
 CATEGORY: 69  
 VARIATION: 180

### YLEF Slider Type 11 types

**YLEFS Ball Screw Drive**  
 YLEFS16 YLEFS25 YLEFS32 YLEFS40

Basic Type  
 High Precision Type

Size	Stroke (mm)
16	50 to 500
25	50 to 800
32	50 to 1000
40	150 to 2000

Motor mounting position:  
 In-line      Parallel [Right] [Left]

**YLEFB Belt Drive**  
 YLEFB16 YLEFB25 YLEFB32

Size	Stroke (mm)
16	300 to 1000
25	300 to 2000
32	300 to 2000

### YLEY Rod Type 16 types

**YLEY Rod Type**  
 YLEY16 YLEY25 YLEY32 YLEY40

Size	Stroke (mm)
16	30 to 300
25	30 to 400
32	30 to 500
40	30 to 500

Motor mounting position:  
 In-line      Top/Parallel

**YLEYG Guide Rod Type**  
 YLEYG16 YLEYG25 YLEYG32 YLEYG40

Size	Stroke (mm)
16	30 to 200
25	30 to 300
32	30 to 300
40	30 to 300

Motor mounting position:  
 In-line      Top mounting

### YLES Slide Table Type 12 types

**YLES Compact**  
 YLES8 YLES16 YLES25

Size	Stroke (mm)
8	30 to 75
16	30 to 100
25	30 to 150

Symmetrical type (L type)      Basic type (R type)      In-line motor type (D type)

**YLESH High Rigidity**  
 YLESH8 YLESH16 YLESH25

Size	Stroke (mm)
8	50, 75
16	50, 100
25	50, 100, 150

Symmetrical type (L type)      Basic type (R type)      In-line motor type (D type)

### YLEP Miniature Type 4 types

**YLEPY Miniature Rod Type**  
 YLEPY6 YLEPY10

Size	Stroke (mm)
6	20, 50, 75
10	

**YLEPS Miniature Slide Table Type**  
 YLEPS6 YLEPS10

Size	Stroke (mm)
6	25, 50
10	

### YLER Rotary Table Type 6 types

**YLER Basic Type**  
 YLER10 YLER30 YLER50

Standard Specifications	320° / 310° / 180° / 90°
Continuous Rotation Specifications	360°



**YLERH High Precision Type**  
 YLERH10 YLERH30 YLERH50

Standard Specifications	320° / 310° / 180° / 90°
Continuous Rotation Specifications	360°



### YLEH Electric Gripper Type 20 types

**YLEHZ 2-Finger**

Size	Open and close stroke (mm)
10	4
16	6
20	10
25	14
32	22
40	30

**YLEHZJ 2-Finger With Dust Cover**

Size	Open and close stroke (mm)
10	4
16	6
20	10
25	14

**YLEHF 2-Finger Long Stroke**

Size	Open and close stroke (mm)
10	16 (32)
20	24 (48)
32	32 (64)
40	40 (80)

**YLEHS 3-Finger**

Size	Open and close stroke (mm)
10	4
20	6
32	8
40	12

Type	Model	Lead (mm)	Repeatability (mm)		Maximum payload (kg)		Maximum speed (mm/sec)	Stroke (mm)		
			Basic type	High-precision type	Horizontal	Vertical				
									Slider Type	
YLEFS Ball Screw Drive	YLEFS16	5	15	4						
		20	12	0.5						
	YLEFS25	12	25	7.5	1100	50 to 800				
		6	30	15						
	YLEFS32	24	20	4	1200	50 to 1000				
		16	45	10						
8		50	20							
YLEFS40	30	25	2	1200	150 to 1200					
	20	55	2							
	10	65	23							
YLEFB Belt Drive		+/-0.08	1	-	1100	300, 500, 600, 700, 800, 900, 1000	300, 500, 600, 700, 800, 900, 1000, 1200, 1500, 1800, 2000			
YLEFB16	48							10	-	1400
	YLEFB25							48	19	-
YLEFB32	48									

Type	Model	Lead (mm)	Repeatability (mm)	Maximum payload (kg)		Maximum speed (mm/sec)	Stroke (mm)	
				Horizontal	Vertical			
Rod Type	YLEY Rod Type	YLEY16	+/-0.02	10	2	500	30, 50, 100, 150, 200, 250, 300	
				5	23	4		250
				2.5	35	8		125
		YLEY25		12	30	8	500	30, 50, 100, 150, 200, 250, 300, 350, 400
				6	55	16	250	
				3	70	30	125	
	YLEY32	16	40	11	500	30, 50, 100, 150, 200, 250, 300, 350, 400, 450, 500		
		8	60	22	300			
		4	80	43	150			
	YLEY40	16	60	13	500	30, 50, 100, 150, 200, 250, 300, 350, 400, 450, 500		
		8	70	27	350			
		4	90	53	175			
YLEY Guide Rod Type	YLEYG16	+/-0.02	10	1.5	500	30, 50, 100, 150, 200		
			5	23	3.5		250	
			2.5	35	7.5		125	
			YLEYG25	12	30	7	500	30, 50, 100, 150, 200, 250, 300
				6	55	15	250	
				3	70	29	125	
	YLEYG32	16	40	9	500	30, 50, 100, 150, 200, 250, 300		
		8	60	20	300			
		4	80	41	150			
	YLEYG40	16	60	11	500	30, 50, 100, 150, 200, 250, 300		
		8	70	25	350			
		4	90	51	175			

Type	Model	Lead (mm)	Repeatability (mm)	Maximum payload (kg)		Maximum speed (mm/sec)	Stroke (mm)	
				Horizontal	Vertical			
Slide Table Type	YLES Compact	YLES8	+/-0.05	1	0.5	200	30, 50, 75	
					0.25	400		
		YLES16		5	3	3	200	30, 50, 75, 100
				10		1.5	400	
				8		5	200	
	YLES25	16		5	2.5	400	30, 50, 75, 100, 125, 150	
	YLES High Rigidity	YLES8		+/-0.05	2	0.5	200	50, 75
						1	0.25	
		YLES16			5	8	2	200
10			5		1		400	
8			12		4		150	
YLES25	16	8	2	400	50, 100, 150			

Type	Model	Lead (mm)	Maximum payload (kg)				Maximum speed (mm/sec)				Stroke (mm)	
			Horizontal		Vertical		Horizontal		Vertical			
			Basic	Compact	Basic	Compact	Basic	Compact	Basic	Compact		
Miniature Type	YLEPY Miniature Rod Type	YLEPY6	4	2	-	0.5	-	150	-	150	-	20, 50, 75
			8	1	-	0.25	-	300	-	300	-	
	YLEPY10	5	6	4	1.5	1.5	200	200	150	150		
		10	3	2	1.0	1.0	350	350	300	300		
YLEP	YLEPS Miniature Slide Table Type	YLEPS6	4	1.0	-	0.5	-	150	-	150	-	25, 50
			8	0.75	-	0.25	-	300	-	300	-	
	YLEPS10	5	2.0	2.0	1.5	1.5	200	200	150	150		
		10	1.5	1.5	1.0	1.0	350	350	300	300		

Type	Model	Oscillating angle (°)	Repeatability (°)		Torque type	Max. rotating torque (N·m)	Max. pushing torque (N·m)	Maximum speed (°/sec)		
			Basic type	High-precision type						
Rotary Table Type	Standard Specifications	YLER10	310	External stopper: 180/90	+/-0.05	Basic (J)	0.22	0.11	420	
										High torque (K)
		YLER30	320	External stopper: 180/90	+/-0.05	+/-0.03	Basic(J)	0.8	0.40	420
							High torque (K)	1.2	0.60	280
		YLER50	320	External stopper: 180/90	+/-0.05	+/-0.03	Basic (J)	6.6	3.3	420
	High torque (K)						10	5.0	280	
	High torque (K)						10	5.0	280	
	YLER Continuous Rotation Specifications	YLER10	360	+/-0.05	+/-0.03	Basic (J)	0.22	0.11	420	
						High torque (K)	0.32	0.16	280	
		YLER30	360	+/-0.05	+/-0.03	Basic (J)	0.8	0.40	420	
High torque (K)						1.2	0.60	280		
YLER50		360	+/-0.05	+/-0.03	Basic (J)	6.6	3.3	420		
High torque (K)	10	5.0	280							

Type	Model	Open and close stroke (mm)	Gripping force (N)		Open/close speed / Maximum pressing speed (mm/sec)	Repeatability (mm)	Main body weight (g)							
			Basic	Compact			Basic	Compact						
Electric Gripper Type	YLEHZ 2-Finger type	YLEHZ10	Basic	Compact	80/50	+/-0.02	Basic	Compact						
									4	6 to 14	2 to 6	165	135	
									6	6 to 14	3 to 8	220	190	
		YLEHZ20							10	16 to 40	11 to 28	430	365	
									YLEHZ25	14	16 to 40	11 to 28	585	520
										22	52 to 130	-	1120	-
	YLEHZJ 2-Finger With Dust Cover	YLEHZJ10	4	Basic	Compact	80/50	+/-0.02	Basic	Compact					
										6 to 14	3 to 6	170	140	
										6 to 14	4 to 8	230	200	
										16 to 40	11 to 28	440	375	
YLEHF 2-Finger Long Stroke	YLEHF10	Basic	Long stroke	Compact	80/20	+/-0.05	Basic	Long stroke						
									16	32	3 to 7	340	370	
									24	48	11 to 28	610	750	
									32	64	48 to 120	1625	1970	
YLEHS 3-Finger	YLEHS10	4	Basic	Compact	70/50	+/-0.02	Basic	Compact						
									6	2.2 to 5.5	1.4 to 3.5	185	150	
									8	9 to 22	7 to 17	410	345	
									12	36 to 90	-	975	-	
YLEH 2-Finger Long Stroke	YLEHF20	Basic	Long stroke	Compact	100/30	+/-0.05	Basic	Long stroke						
									32	48	11 to 28	1625	1970	
									40	64	48 to 120	1980	2500	
									80	72 to 180	-	-	-	
YLEH 2-Finger Long Stroke	YLEHF32	Basic	Long stroke	Compact	100/30	+/-0.05	Basic	Long stroke						
									32	48	11 to 28	1625	1970	
									40	64	48 to 120	1980	2500	
									80	72 to 180	-	-	-	
YLEH 2-Finger Long Stroke	YLEHF40	Basic	Long stroke	Compact	100/30	+/-0.05	Basic	Long stroke						
									32	48	11 to 28	1625	1970	
									40	64	48 to 120	1980	2500	
									80	72 to 180	-	-	-	



# YLEF

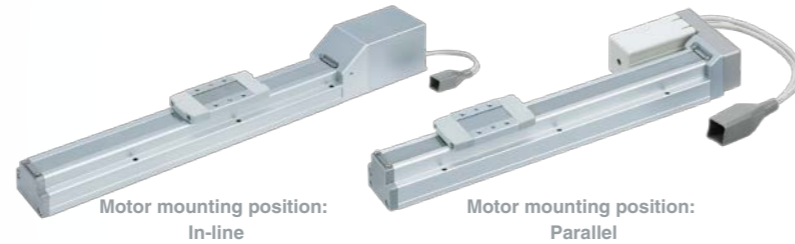
## Slider Type

Refer to the YAMAHA website for details on the specifications and outline drawings, etc.

### Ball Screw Drive YLEFS

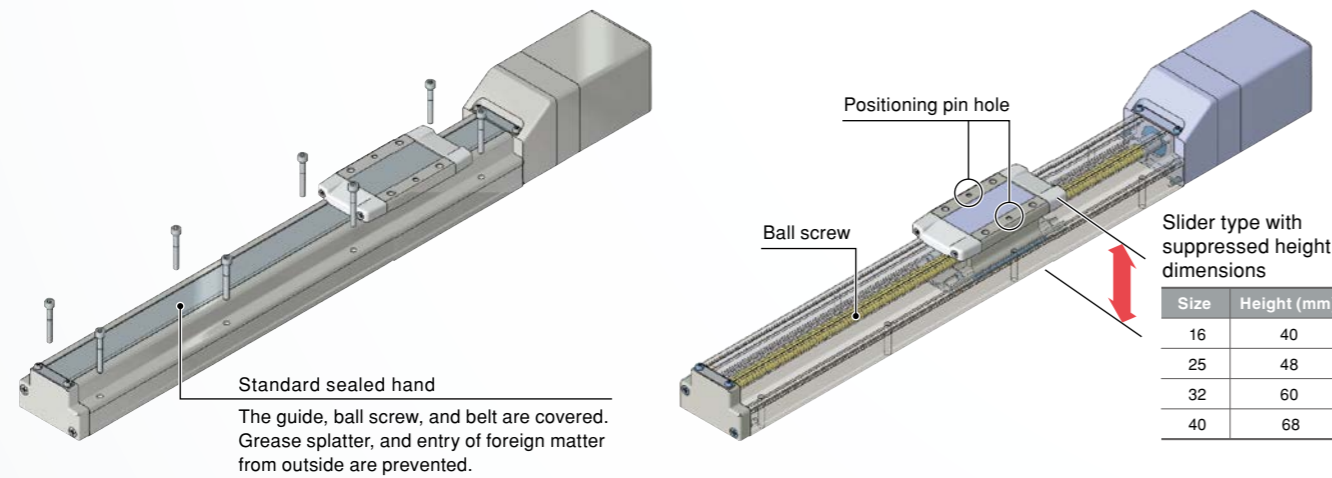
SIZE: 16, 25, 32, 40

Maximum payload: **65 kg**  
 Maximum speed: **1200 mm/s**  
 Repeatability: **+/-0.02 mm**  
 (High precision: **+/-0.015 mm**)



Reduce installation man-hours with the standard sealed hand

The body can be installed without removing exterior parts such as the cover.



### Belt Drive YLEFB

SIZE: 16, 25, 32

Maximum stroke: **2000 mm supported**  
 Maximum speed: **2000 mm/s**



# YLEY

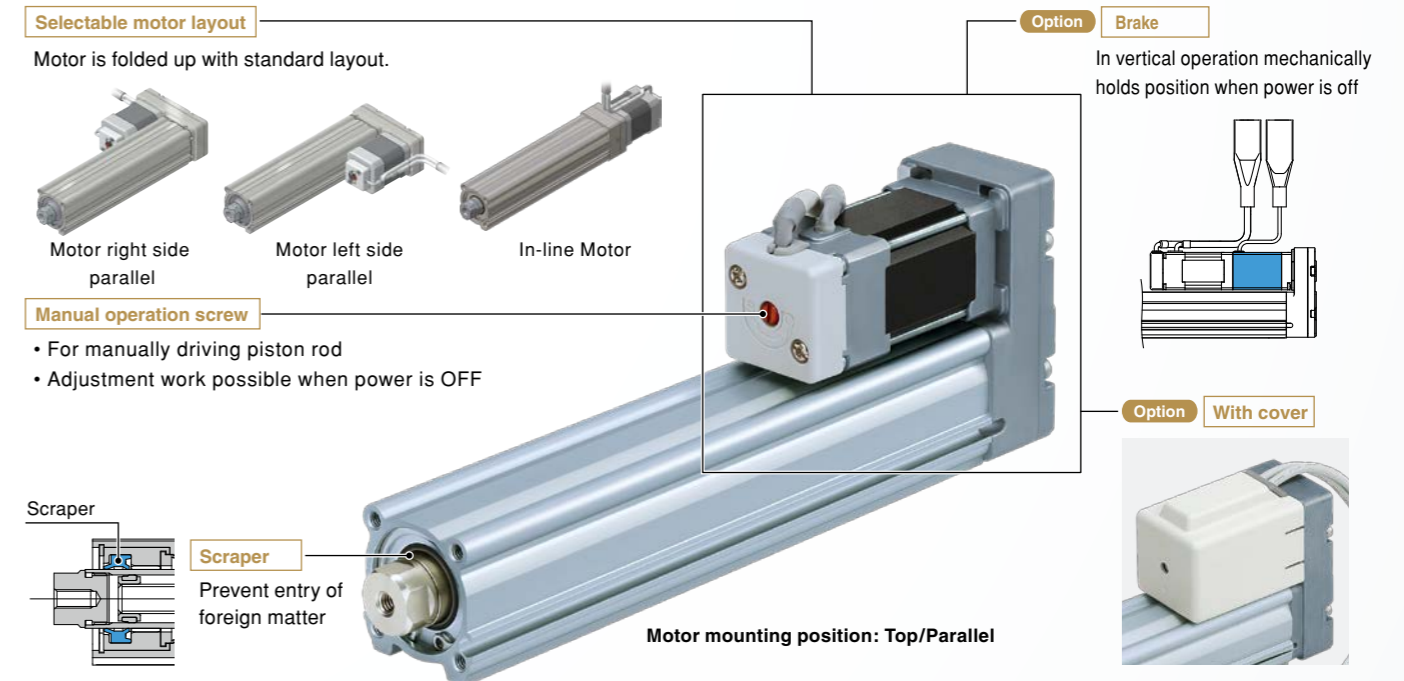
## Rod Type

Refer to the YAMAHA website for details on the specifications and outline drawings, etc.

### Rod Type YLEY

SIZE: 16, 25, 32, 40

Long stroke support: Max. **500 mm** (YLEY32, 40)  
 High precision and repeatability ensured with ball screw: **+/-0.02 mm**



### Guide Rod Type YLEG

SIZE: 16, 25, 32, 40

Increased rigidity Tip lateral load: **5-fold\***

- Ball screw increases prevention
- Compact integrated guide rod enables lateral load resistance and high precision turn prevention
- Selectable motor layout: upward fold, straight
- Improved non-rotating precision ● Scraper to prevent entry of foreign matter

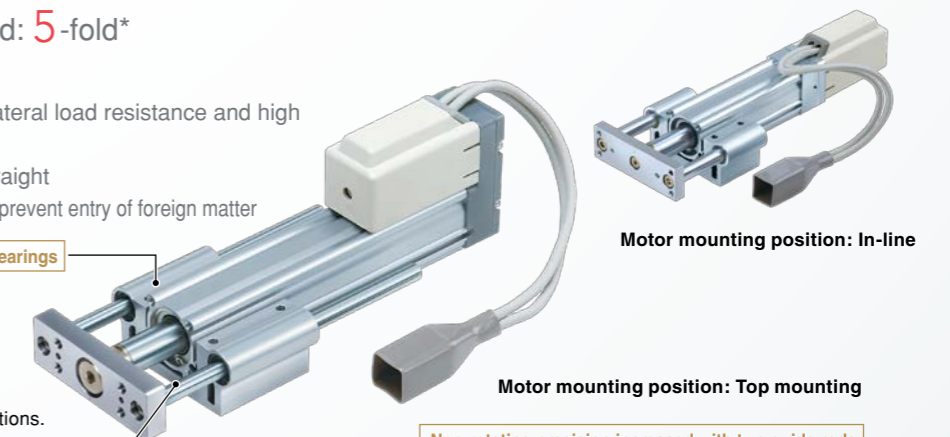
Compatible with sliding bearings and ball bushing bearings

#### Sliding bearing

Suitable for resisting lateral loads caused by impact of stopper, etc.

#### Ball bushing bearing

Suitable for pushers and lifters with smooth operations.



Non-rotating precision increased with two guide rods

Tube inside diameter (mm)	16	25	32
Sliding bearing	+/-0.06°	+/-0.05°	
Ball bushing bearing	+/-0.05°	+/-0.04°	

Non-rotating precision when pulling in cylinder (initial value), with no-load, and excluding guide rod deflection should be less than the value given in the table.

\* Comparison with rod type YLEY25, 100 stroke

# YLES

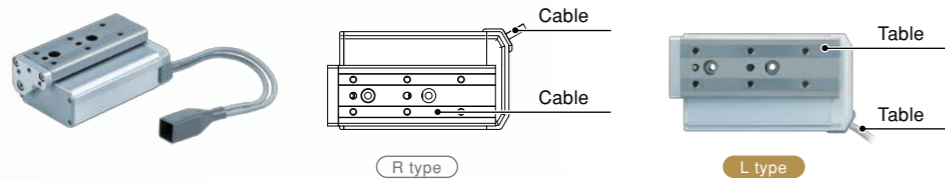
## Slide Table Type

Refer to the YAMAHA website for details on the specifications and outline drawings, etc.

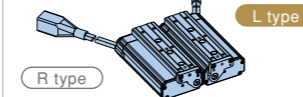
Choose from Symmetrical type / L type, In-line motor type / D type

### Symmetrical type / L type

The table and cable outlet positions are the opposite of the R type for user's convenience.

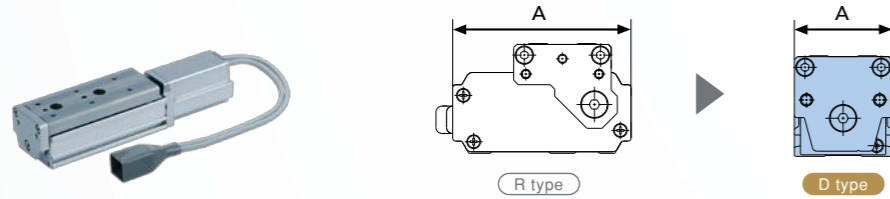


When installed in a row, space can be saved without cable interference.



### In-line motor type / D type

Smaller dimension width: maximum 45% reduction



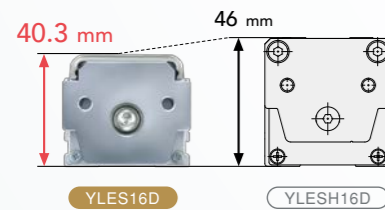
Size	D type	R/L type
8	32	58.5
16	45	72.5
25	61	106

### Compact YLES

SIZE: 8, 16, 25

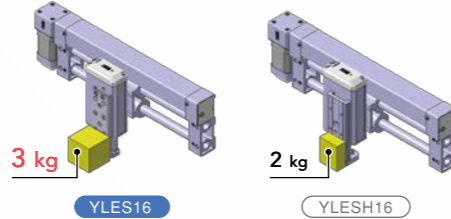
Compact: Max. 12% reduction

\* Workpiece mounting height \* Comparison with YLESH16D



Increased vertical payload: Max. 50% increase

\* Through reduction of moving part weight \* Comparison with YLESH16



Light weight: Max. 29% reduction

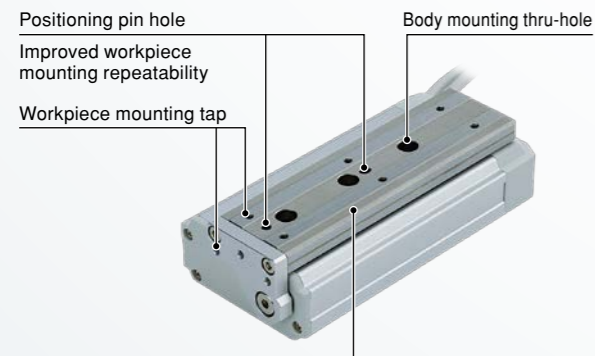
Model	Weight (kg)	Reduced amount
YLES16D-100	1.20	-0.50 kg
YLES16D-100	1.70	

### High rigidity YLESH

SIZE: 8, 16, 25

Deflection amount: 0.016 mm\*

\* YLESH16-50 with 25 N load



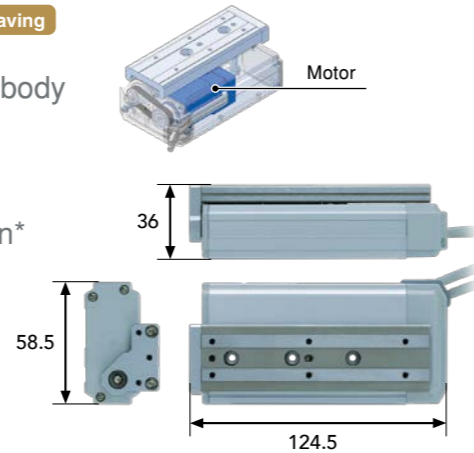
### Compact and space saving

Motor built into body

Volume ratio: 61% reduction\*

\* Compared with YLESH16-50  
\* For R/L type

For YLESH8 R/L 50 m stroke



# YLEP

## Miniature Type

Refer to the YAMAHA website for details on the specifications and outline drawings, etc.

### Miniature Rod YLEPY

SIZE: 6, 10

Weight: 240 g

\* For LEPY6□-25



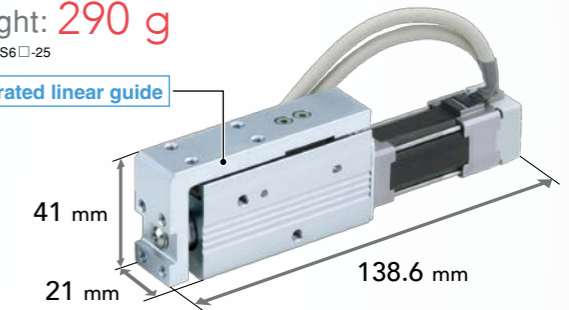
### Miniature Slide Table YLEPS

SIZE: 6, 10

Weight: 290 g

\* For LEPS6□-25

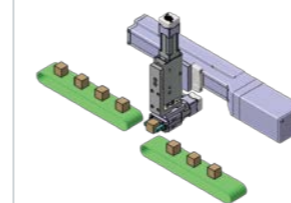
#### Integrated linear guide



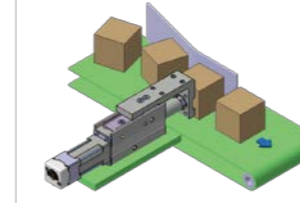
### Example of applications

#### Pick & Place

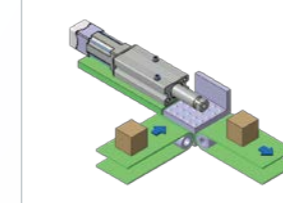
Repeatability: +/-0.02 mm



#### Positioning

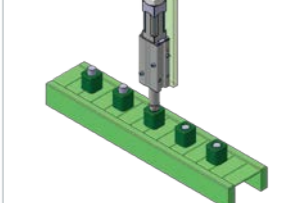


#### Unloading



#### Press fit

Maximum pressing thrust: 50 N

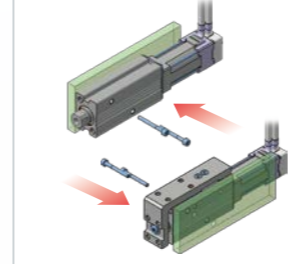


### Mounting method

#### Multiple methods to choose from

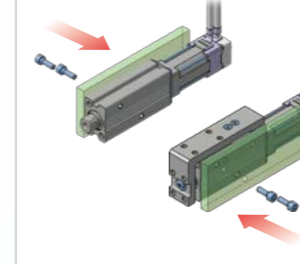
#### Horizontal mounting [Body through hole]

Slide table type can be mounted on both sides

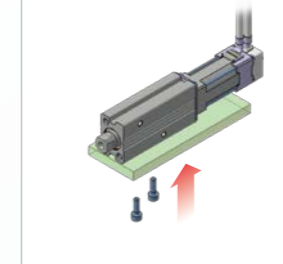


#### Horizontal mounting [Body tap]

Slide table type has body taps on both sides

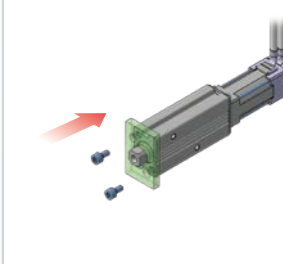


#### Vertical mounting [Body tap]



#### Axial direction mounting

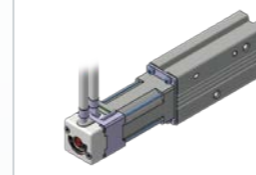
\* Only rod type [Body tap]



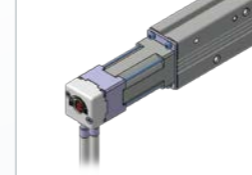
### Motor cable outlet orientation

#### Choose from four directions

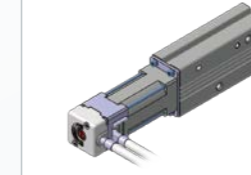
#### Exit to top [Basic style]



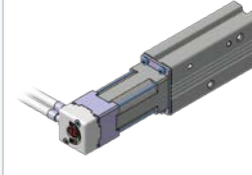
#### Exit to bottom [When U is selected]



#### Exit to right [When R is selected]



#### Exit to left [When L is selected]





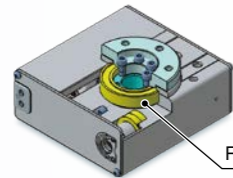
# YLER

## Rotary Table Type

Refer to the YAMAHA website for details on the specifications and outline drawings, etc.

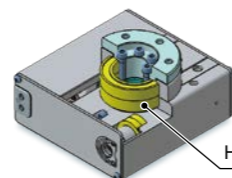
Basic type YLER | High precision type YLERH

### Basic type YLER



Rolling bearing

### High precision type YLERH



High-precision bearing

The table's displacement to the radial and thrust directions is reduced by adopting highly rigid bearings.

#### Oscillating angle

360°, 320° (310°)\*, 180°, 90°  
\* LER10 only

#### High torque

**Gear ratio 30-fold**  
Special worm gears that reduce backlash

**Two torque value to choose from**  
Two reduction rates

Model	(N·m)	
	Basic	High torque
YLER10	0.22	0.32
YLER30	0.8	1.2
YLER50	6.6	10.0

#### Built-in stepping motor (servo 24 VDC)

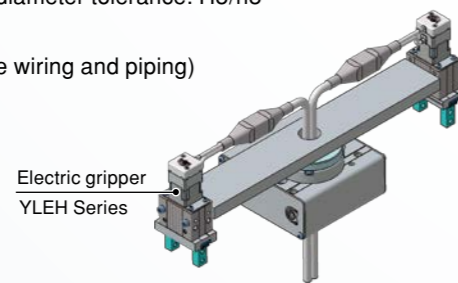
Compact type

#### Manual operation screw / both sides

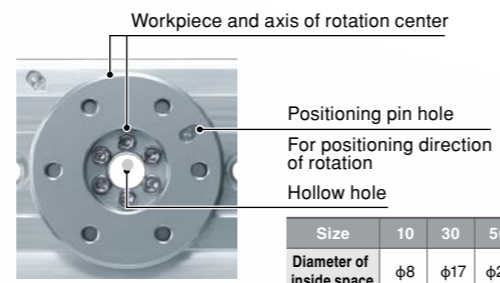
The table can be manually rotated even when the power is OFF

### Easily installation of tooling

- Table inside diameter/outer diameter tolerance: H8/h8
- Positioning pin hole
- Hollow hole (store workpiece wiring and piping)



Electric gripper  
YLEH Series



Workpiece and axis of rotation center

Positioning pin hole  
For positioning direction of rotation  
Hollow hole

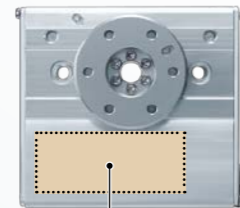
Size	10	30	50
Diameter of inside space	φ8	φ17	φ20

### Compact type



Basic type (mm)	
Model	H
YLER10	42
YLER30	53
YLER50	68

### Space saving

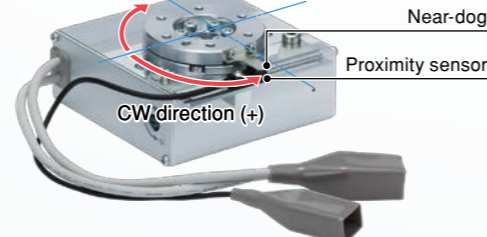


High precision type (mm)	
Model	H
YLERH10	49
YLERH30	62
YLERH50	78

Built-in motor  
Space saving

### Continuous Rotation Specifications

- Oscillating angle: 360°
- Return-to-origin with proximity sensor  
CCW direction (-)



Near-dog

Proximity sensor

CW direction (+)

# YLEH

## Electric Gripper Type

Refer to the YAMAHA website for details on the specifications and outline drawings, etc.

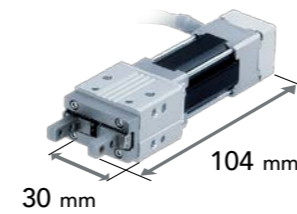
2-Finger YLEHZ

Compact | Light weight

SIZE: 10, 16, 20, 25, 32, 40

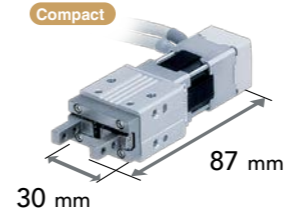
Weight: 165 g

\* For YLEHZ10

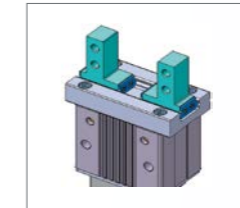


Weight: 135 g

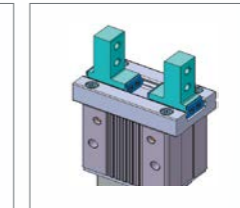
\* For YLEHZ10L



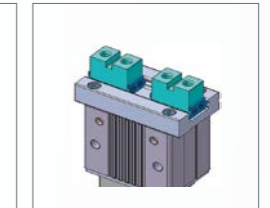
#### Finger option



Side tap mounting method



Open/close direction through-hole method



Flat type finger method

2-Finger With Dust Cover YLEHZJ

SIZE: 10, 16, 20, 25

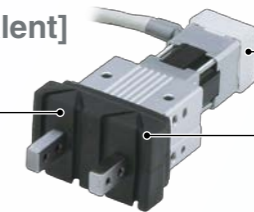
### With sealed structure dust cover [IP50 or equivalent]

- Prevent cutting chips and dust, etc., from entering
- Prevent grease from splattering, etc.

#### Three types of cover matters (only finger section)

Chloroprene rubber: Black  
Fluororubber: Black  
Silicone rubber: Ivory

Standard  
Option  
Option



Encoder dust cover

Projection-free cover shape

The cover does not create projections when opening or closing. The structure folds inward to prevent interface with other devices.

2-Finger Long Stroke YLEHF

SIZE: 10, 20, 32, 40

### Long stroke supports various workpieces

Stroke: 40 mm



Stroke: 80 mm

Long stroke



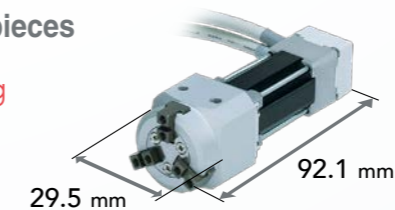
3-Finger YLEHS

SIZE: 10, 20, 32, 40

### For round workpieces

Weight: 185 g

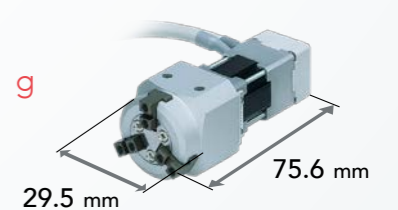
\* For YLEHS10



Weight: 150 g

\* For YLEHS10L

Compact



### Drop prevention function (self-locking function)

- Maintains gripping force when stopped and restarting
- Energy saving with lower power consumption
- Workpiece can be released with manual operations

### Selectable motor cable exit direction

### Diverse mounting variations