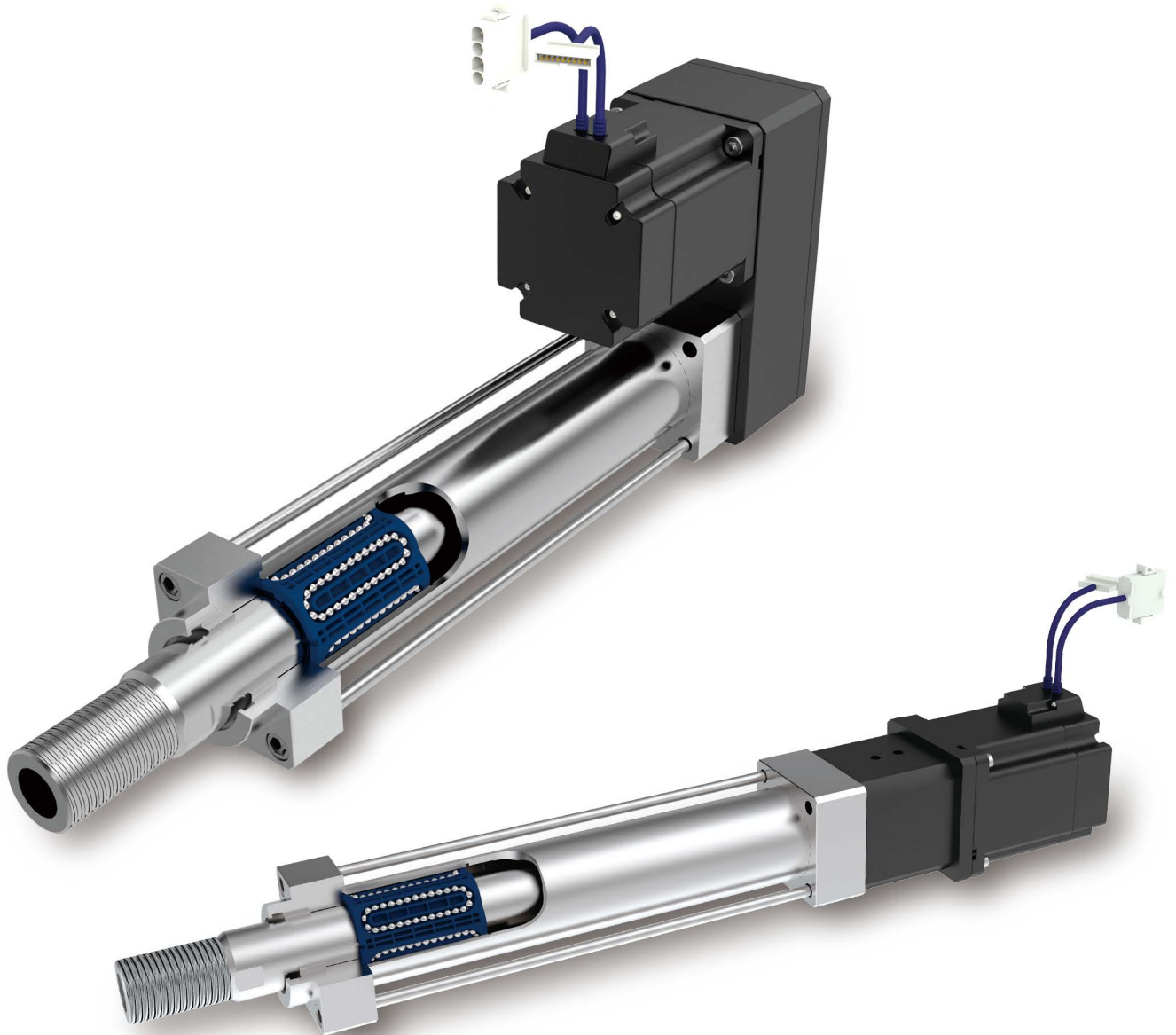


NEW

Servo Cylinder Series with linear bushing rod guide

# Servo Cylinder Series

Servo cylinders that can replace hydraulic or pneumatic cylinders

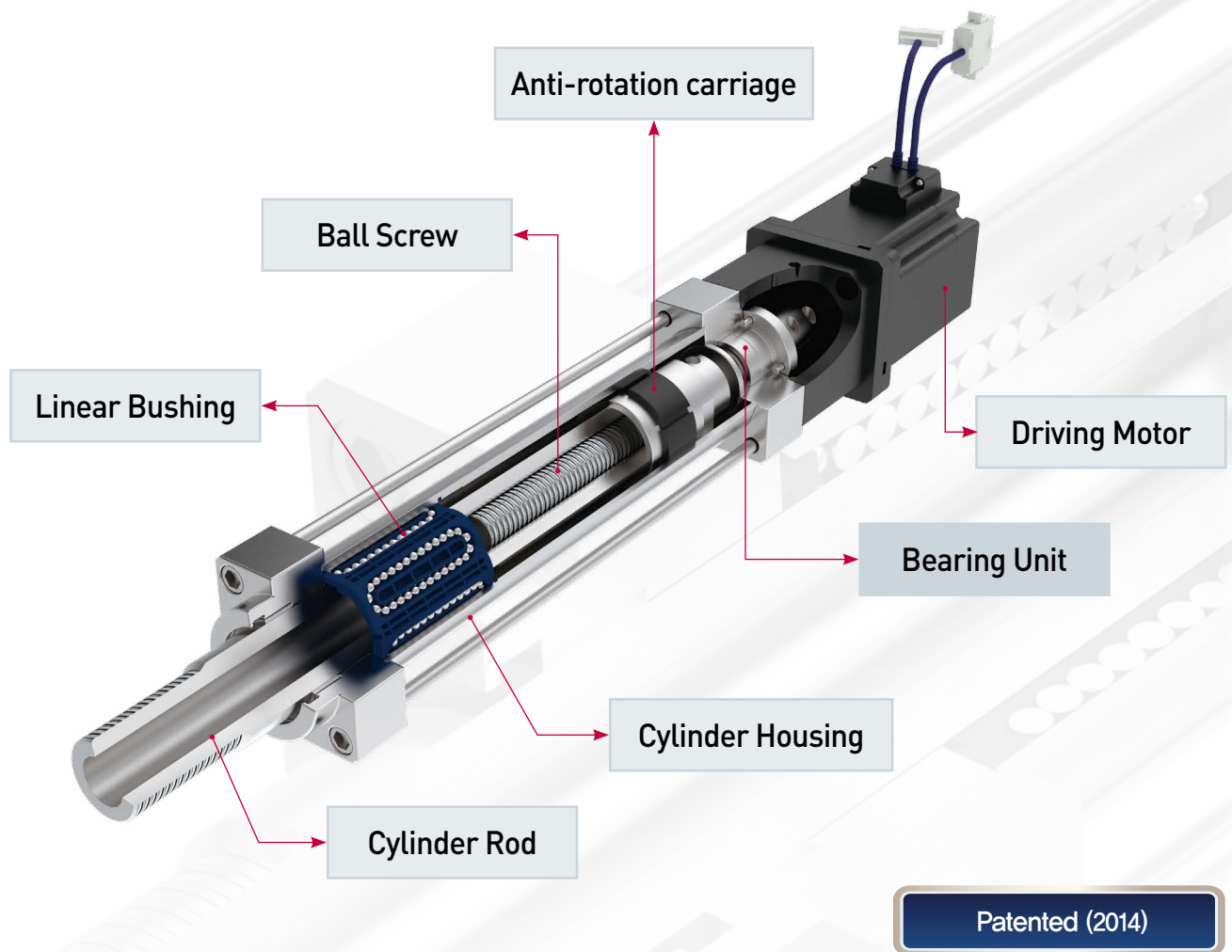


*High-speed continuous operation /  
high rigidity / long service life / wide range of applications*

 **SAMICK**

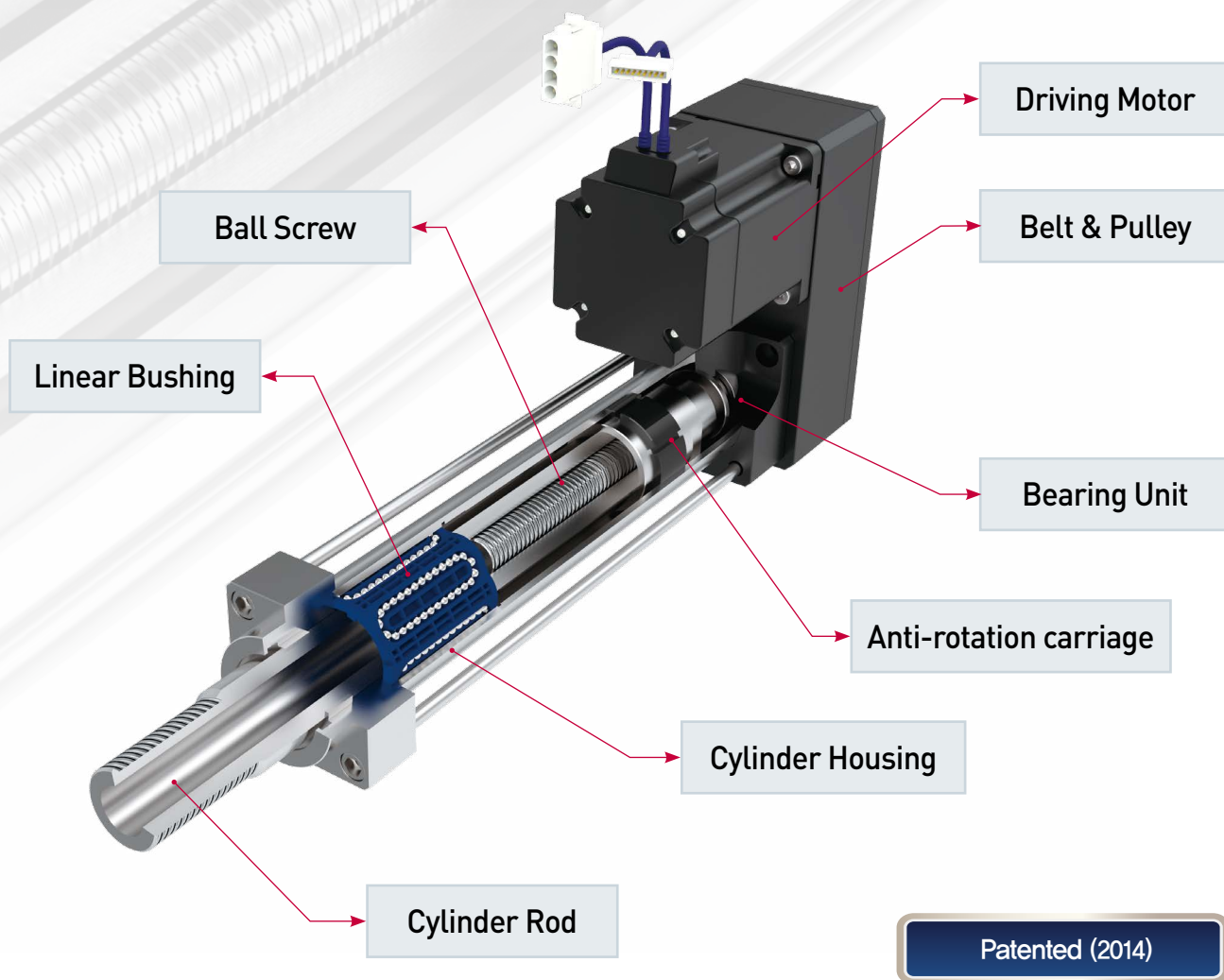
# Servo cylinder combined with SAMICK linear bushing expertise: high rigidity, high speed, long service life

Direct drive



- Stable accuracy
- High rigidity and rod rotation control
- Easy driving motor operating

Parallel drive



- Stable accuracy
- High rigidity and rod rotation control
- Easy driving motor operating
- Highly space efficient

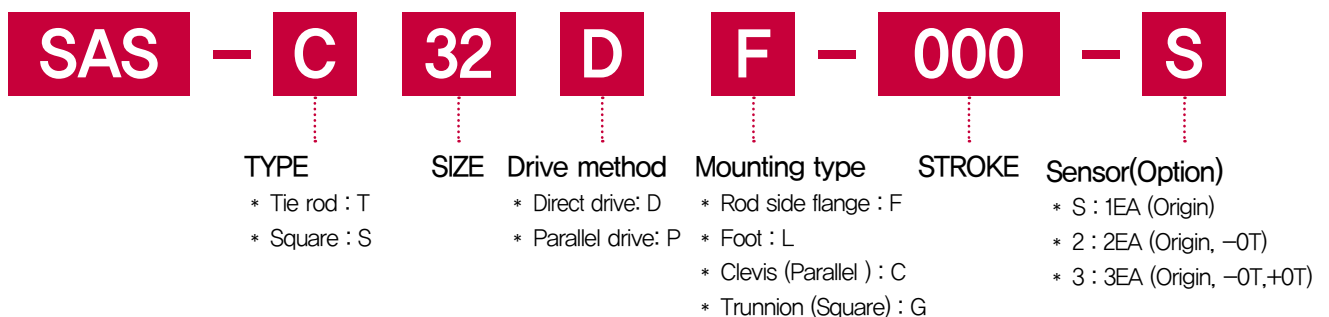
## Features

- 1) Using a linear bushing as a rod guide offers minimal friction resistance, smooth motion, high-speed operation, and long service life
- 2) Cylinder barrel and rod are made of highly rigid bearing steel, suitable for harsh industrial environments
- 3) Various interchangeable types available for manufacturing versatility and field customization
- 4) Suitable for use in closed-loop control systems

## Benefits

- 1) Exact path and position control
- 2) High holding torque
- 3) Excellent low-speed properties
- 4) Easy installation
- 5) Reduction of maintenance costs
- 6) Ideal for repeatability, vertical mounting, and compression applications

## Part number



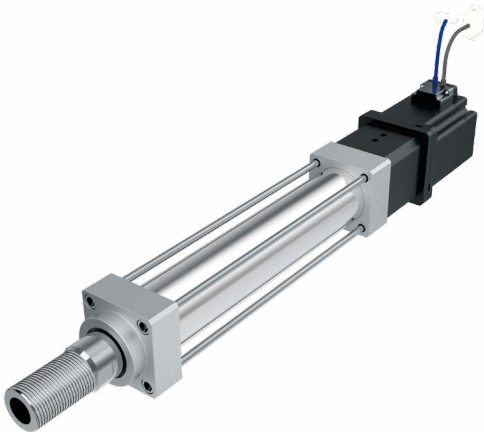
## Basic specification

Items	Φ32	Φ40	Φ60	Φ80
Ball Screw Lead (mm)	(2), 3, (4), (10)	(2), 4, (5)	5, (10), (20)	10
Ball Screw Dia. (mm)	10	12	20	20
Maximum thrust (kgf)	140	200	500	1,000
Maximum speed (mm/sec)	150 / 200	200 / 270	200 / 200	330 / 500
Stroke (st) (mm)	~ 400	~ 600	~ 800	~ 800
Maximum rotation angle of rod ( ° )	±0.2	±0.25	±0.25	±0.25
Repeatability (mm)	±0.02	±0.02	±0.02	±0.01
Servo Motor	50W, 100W	200W, 400W	750W	1KW, 1.5KW

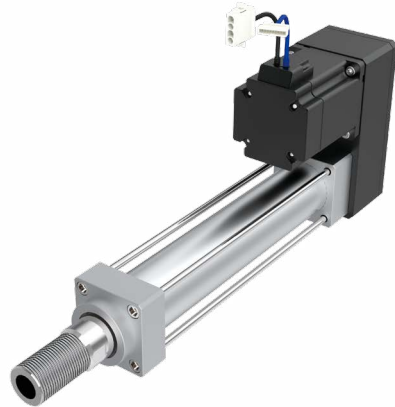
Note 1) The specification in parentheses of Ball Screw Lead are customer specifications

Note 2) The above specifications are for the product to be applied Standard Ball Screw Lead

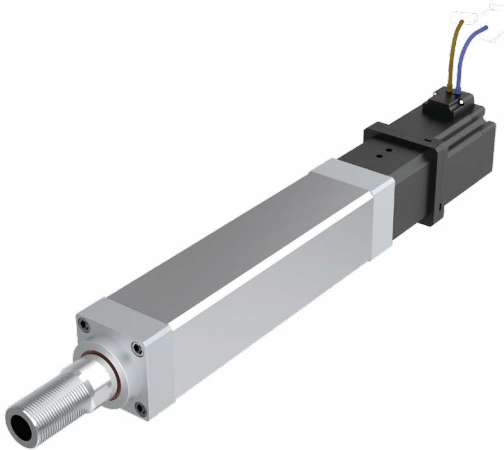
Examples of Basic type



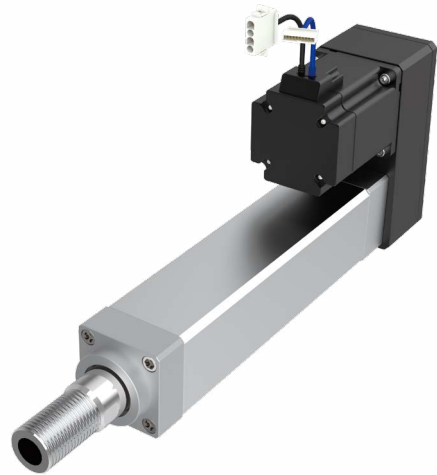
Tie rod Direct Basic  
(SAS-T \*\* DS- \*\*\*)



Tie rod parallel Basic  
(SAS-T \*\* PS- \*\*\*)

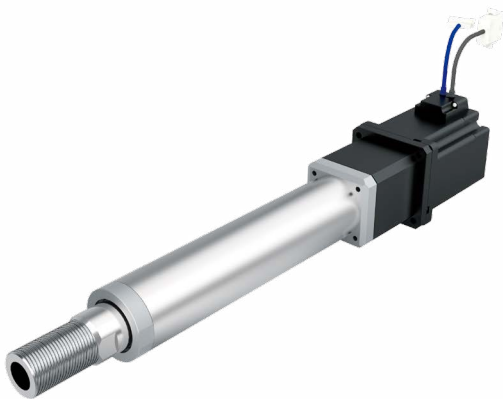


Square Direct Basic  
(SAS-S \*\* DS- \*\*\*)

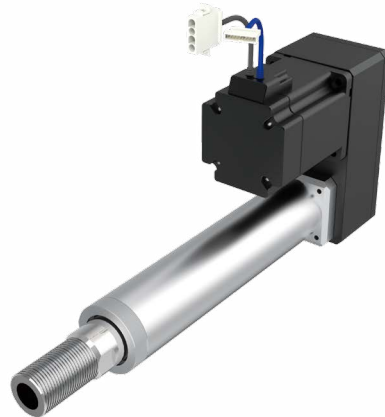


Square parallel Basic  
(SAS-S \*\* PS- \*\*\*)

Reference image

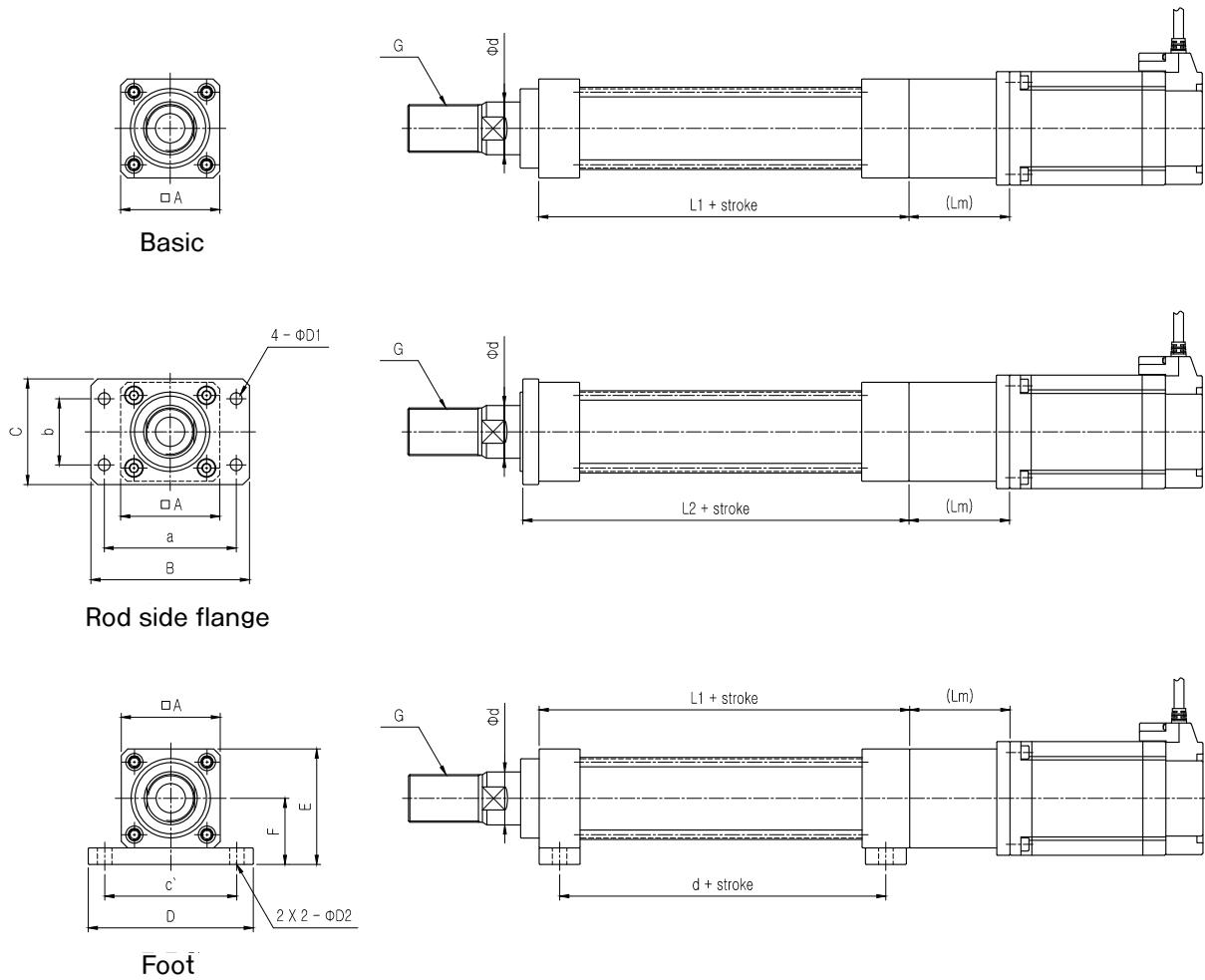


Standard Direct Basic  
(SAS-C \*\* DS- \*\*\*)



Standard parallel Basic  
(SAS-C \*\* PS- \*\*\*)

## ■ Tie rod (Direct type)



### - Direct type

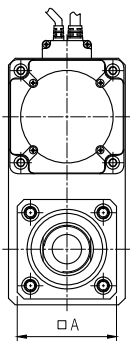
	□A	Φd	L1	L2	(Lm)	B * C	D * E * F	a * b * ΦD1	c' * d * ΦD2	G (※)
Φ32	46	20	156	166	(45)	79 * 50	82 * 56 * 33	64 * 32 * 7	62 * 129 * 7	M18×1.5
Φ40	52	25	182	192	(60)	90 * 55	90 * 62 * 36	72 * 36 * 9	70 * 154 * 9	M22×1.5
Φ60	75	40	234	246	(83.5)	120 * 80	125 * 87.5 * 50	100 * 50 * 9	100 * 200.5 * 11	M36×1.5
Φ80	100	50	290	310	(107)	160 * 110	165 * 120 * 70	130 * 76 * 14	130 * 242 * 14	M45×1.5

### - Parallel type

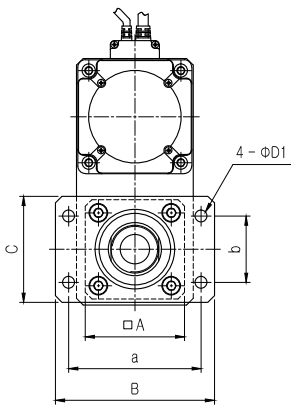
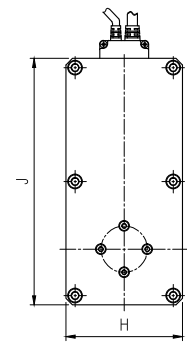
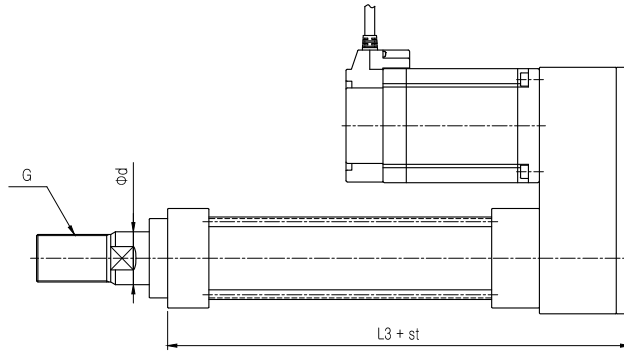
	L3	L4	H * J	ΦD3	K	L * M
Φ32	203	213	52 * 120	10	30	15 * 20
Φ40	234	244	62 * 136	12	35	18 * 24
Φ60	302	314	88 * 186	16	40	25 * 32
Φ80	373	393	130 * 260	22	52	30 * 45

Note 1. SAMICK can respond to customer specification on ROD tip(G) other than standard screw.

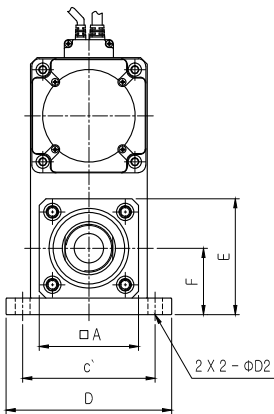
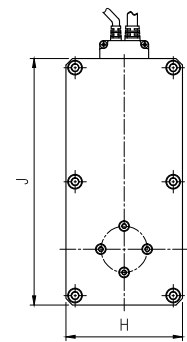
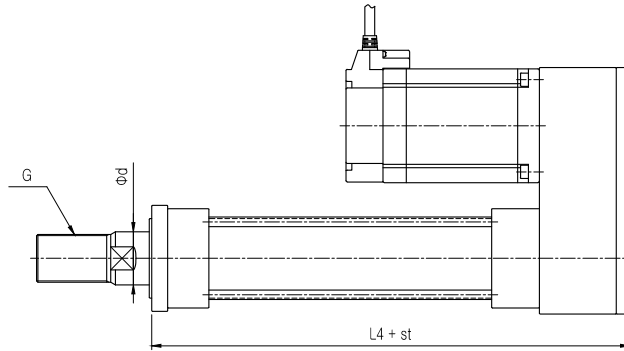
■ Tie rod (Parallel type)



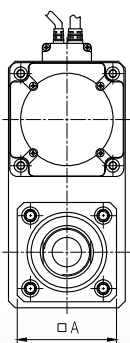
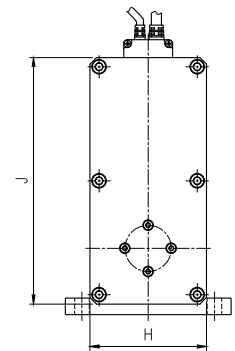
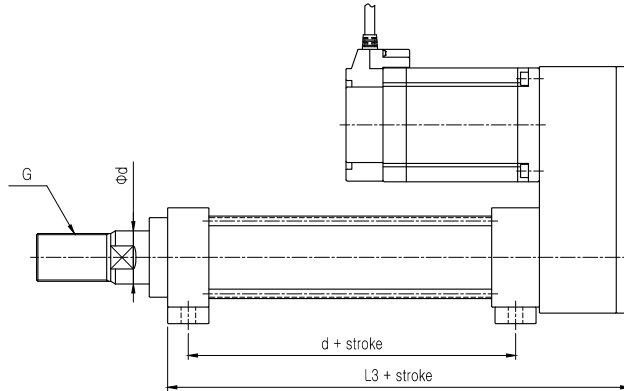
Basic



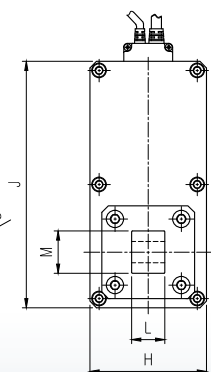
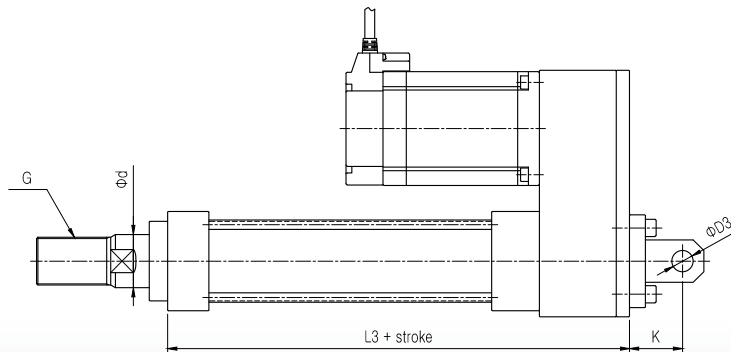
Rod side flange



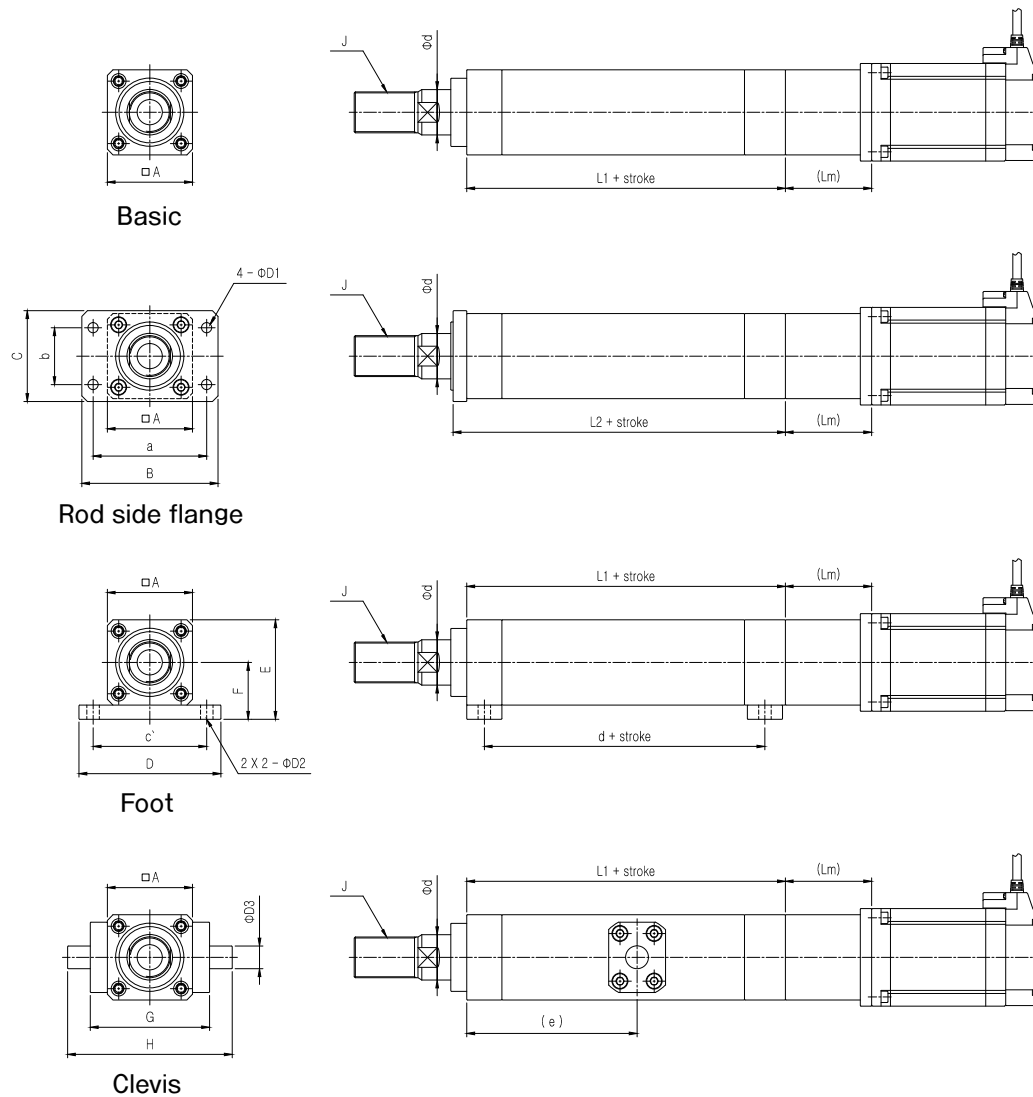
Foot



Clevis



## ■ Square (Direct type)



### - Direct type

	$\square A$	$\phi d$	L1	L2	(Lm)	B * C	D * E * F	G * H	a * b * $\phi D1$	c * d * $\phi D2$	(e) * $\phi D3$	J (※)
$\phi 32$	46	20	156	166	(45)	79 * 50	82 * 56 * 33	66 * 90	64 * 32 * 7	62 * 129 * 7	(103) * 12	M18×1.5
$\phi 40$	52	25	182	192	(60)	90 * 55	90 * 62 * 36	72 * 104	72 * 36 * 9	70 * 154 * 9	(128) * 16	M22×1.5
$\phi 60$	75	40	234	246	(83.5)	120 * 80	125 * 87.5 * 50	105 * 145	100 * 50 * 9	100 * 200.5 * 11	(166) * 20	M36×1.5
$\phi 80$	100	50	290	310	(107)	160 * 110	165 * 120 * 70	140 * 190	130 * 76 * 14	130 * 242 * 14	(201) * 25	M45×1.5

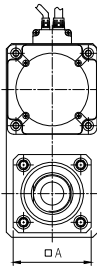
### - Parallel type

	L3	L4	K * L	$\phi D4$	M	N * P
$\phi 32$	203	213	52 * 120	10	30	15 * 20
$\phi 40$	234	244	62 * 136	12	35	18 * 24
$\phi 60$	302	314	88 * 186	16	40	25 * 32
$\phi 80$	373	393	130 * 260	22	52	30 * 45

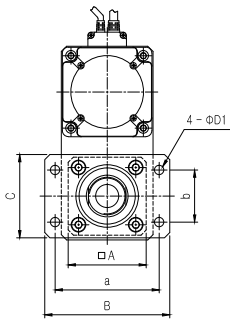
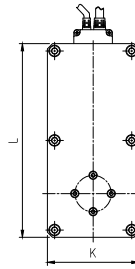
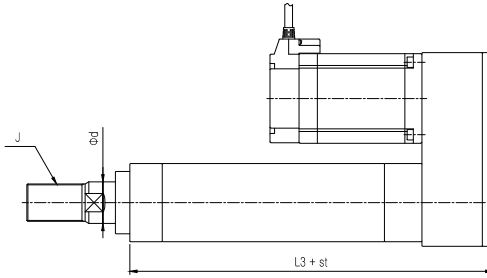
Note 1. SAMICK can respond to customer specification on ROD tip(J) other than standard screw.



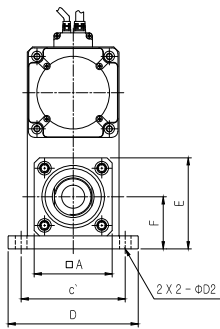
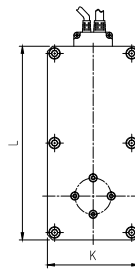
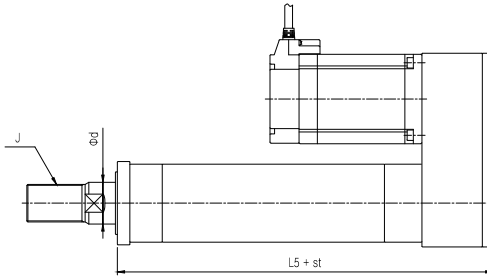
■ Square (Parallel type)



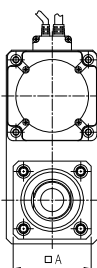
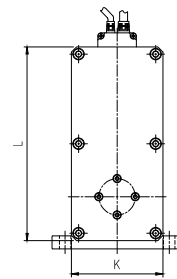
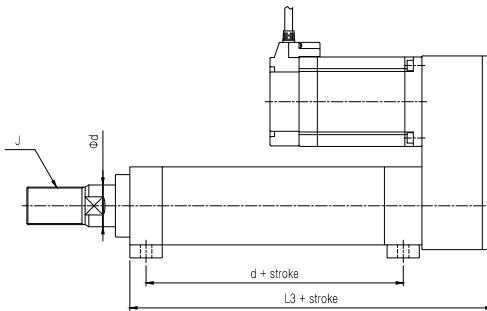
Basic



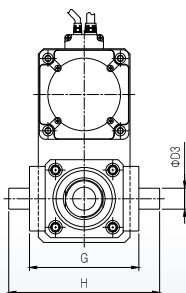
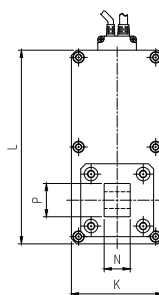
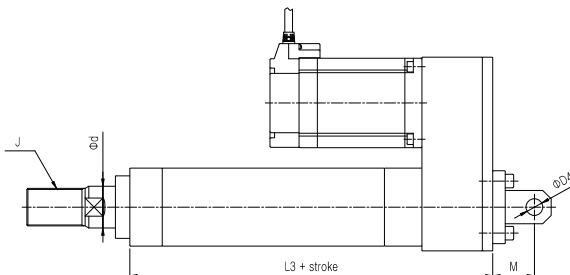
Rod side flange



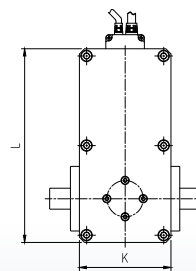
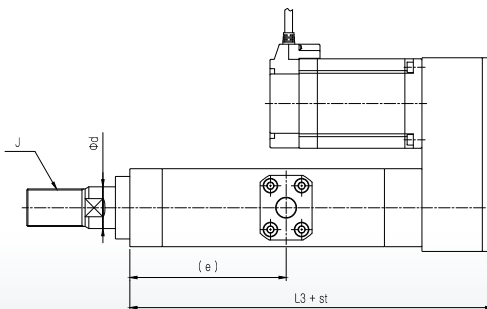
Foot



Clevis

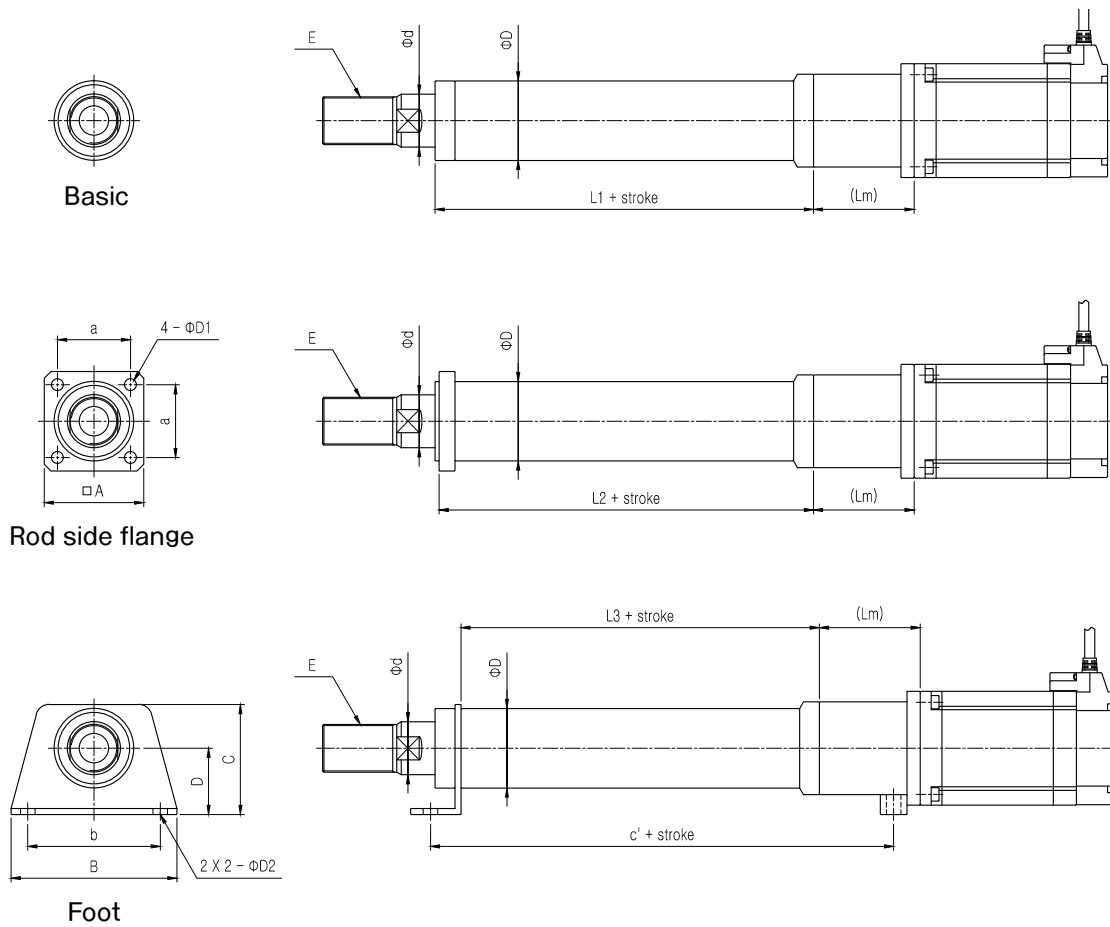


Trunnion



## Dimensions

### ■ Standard (Direct type)



### - Direct type

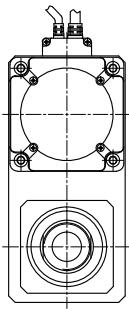
	ΦD	Φd	L1	L2	L3	(Lm)	□A	B * C * D	a * a * ΦD1	b * c' * ΦD2	E
Φ32	32	20	161.5	156.5	146.5	(45)	46	82 * 52 * 33	32.5 * 32.5 * 7	62 * 182.5 * 7	M18×1.5
Φ40	40	25	186	181	171	(60)	55	90 * 59 * 36	40 * 40 * 9	70 * 219 * 9	M22×1.5
Φ60	60	40	239	236	224	(83.5)	75	125 * 83 * 50	55 * 55 * 9	100 * 297 * 11	M36×1.5
Φ80	80	50	293	290	270	(107)	100	165 * 115 * 70	75 * 75 * 14	130 * 359 * 14	M45×1.5

### - Parallel type

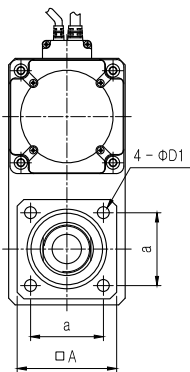
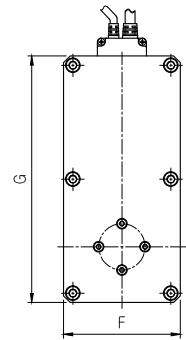
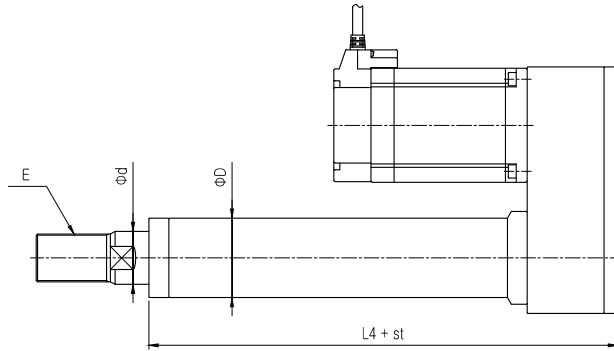
	L4	L5	L6	F * G	b * d * ΦD2	ΦD3	H	J * K
Φ32	108.5	203.5	205.5	52 * 120	62 * 216.5 * 7	10	30	15 * 20
Φ40	238	233	238	62 * 136	70 * 247.5 * 9	12	35	18 * 24
Φ60	307	304	312	88 * 186	100 * 325 * 11	16	40	25 * 32
Φ80	376	373	381	130 * 258	130 * 393 * 14	22	52	30 * 45

Note 1. SAMICK can respond to customer specification on ROD tip(E) other than standard screw.

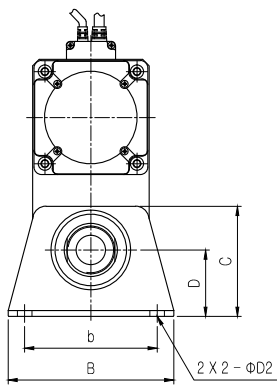
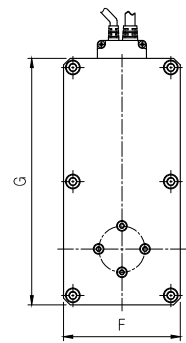
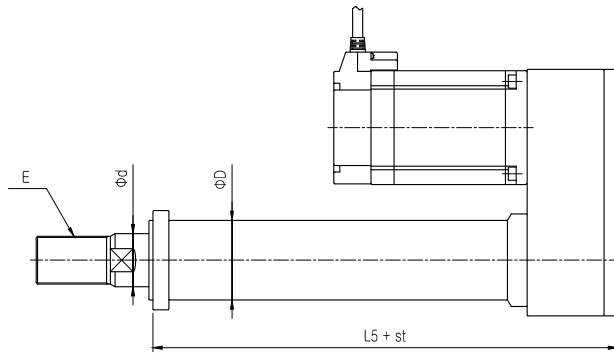
■ Standard (Parallel type)



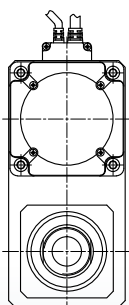
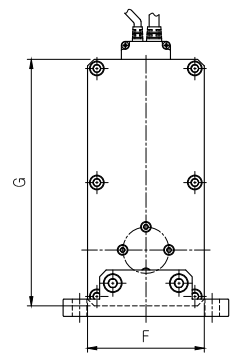
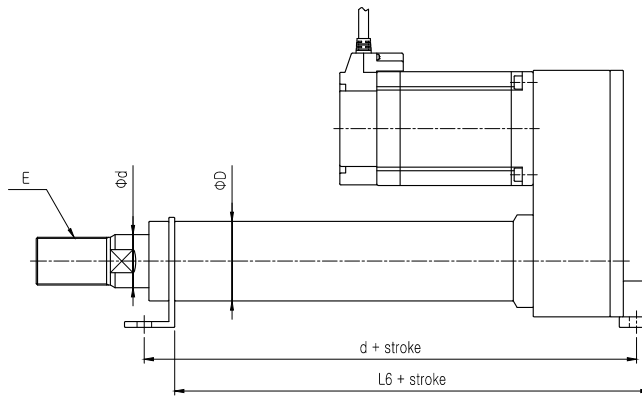
Basic



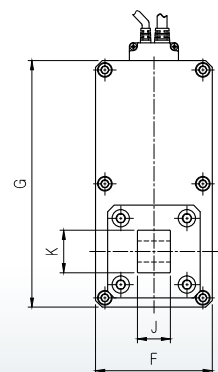
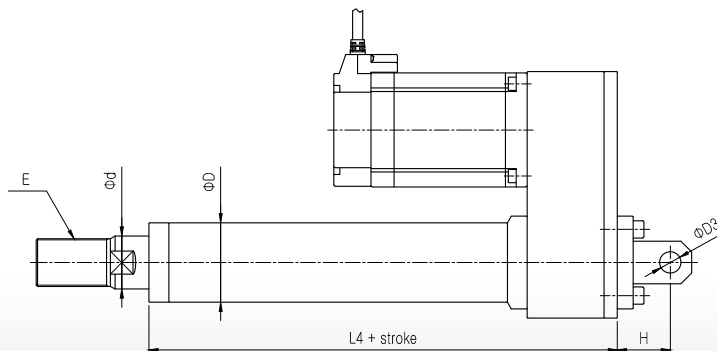
Rod side flange



Foot

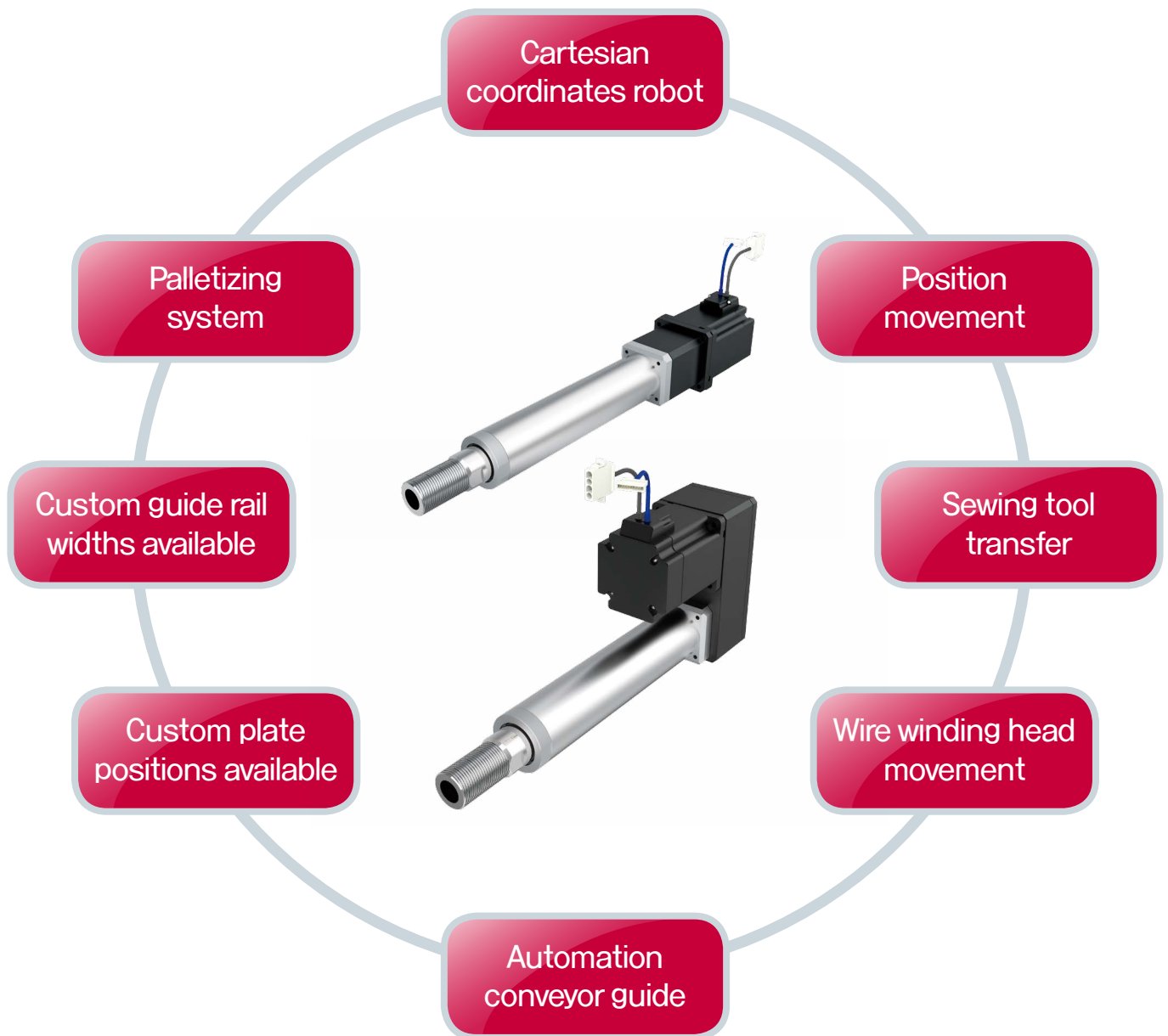


Clevis



## Usages

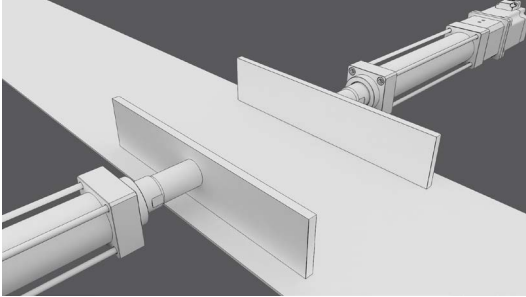
- One type of Electric actuator that can replace hydraulic or pneumatic
- Position control cylinder that can be applied to transport systems, clamping devices, distribution systems and mixed production systems in industrial automation



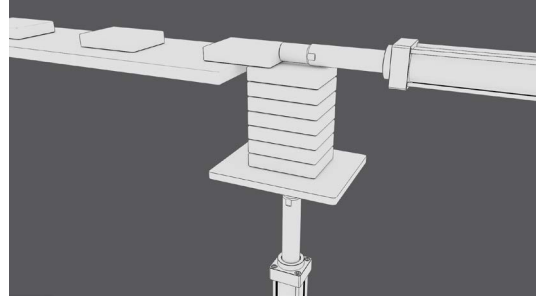
Custom design and manufacturing to various specifications

## Application Example

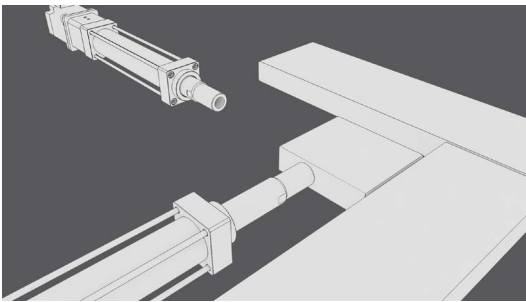
### Custom guide rail widths adjustment



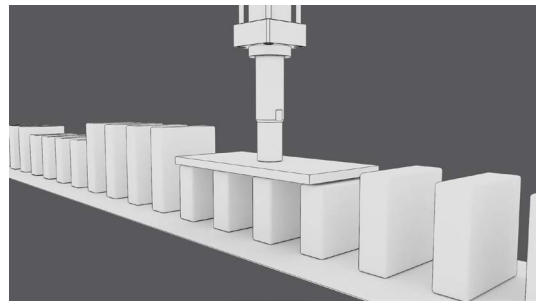
### Palletizing System



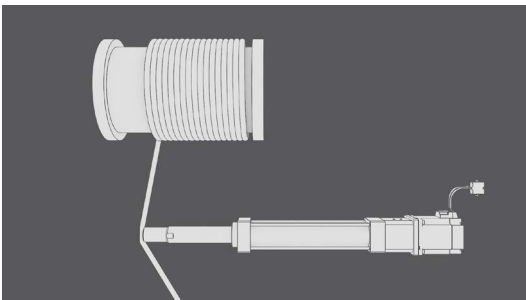
### Custom plate positions adjustment



### Position Movement



### Wire winding-head movement

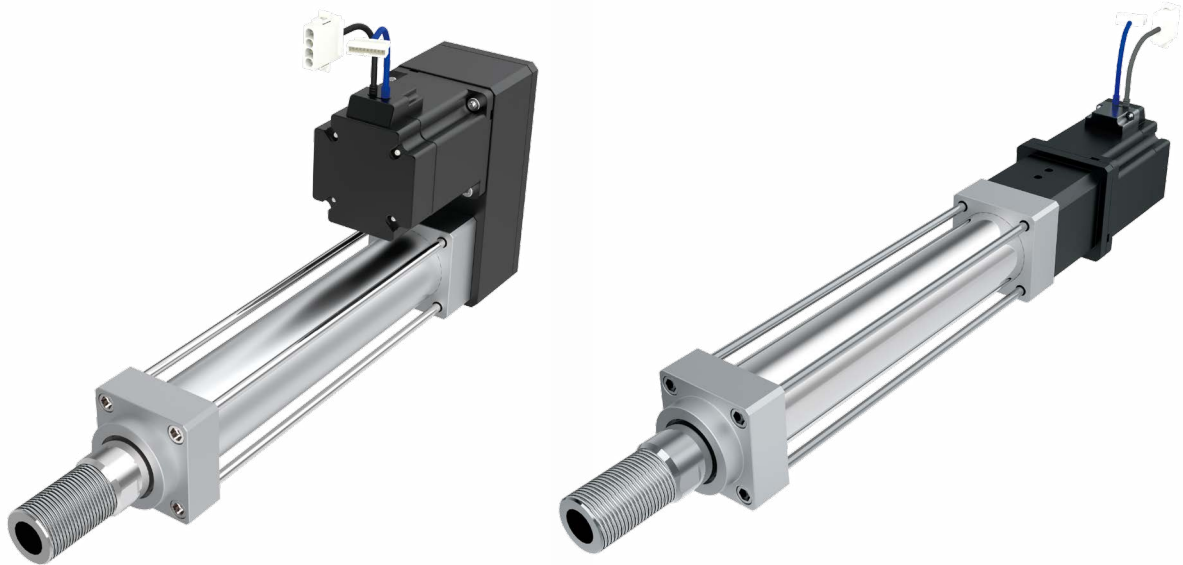






**SAMICK**

# Servo Cylinder Series



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