

# PHB

series



**알루미늄 아노다이징**

Aluminum anodizing

**고하중 및 중저속 전동 액추에이터**

Electric actuators for For transferring with heavy load and middle-low speed

**볼 스크류 타입**

Ball screw type



**본체 사이즈 062 · 080 · 100 · 120**

Body size 062 · 080 · 100 · 120

**직렬 / 병렬 / 가이드**

Straight/Parallel/Guide

# PHB Series

## 주문형식 Order Information



### ① 형식 Type

**PHB** 볼 스크류 타입 Ball Screw Type

### ② 본체 사이즈 Body Size

**062** □62    **080** □80    **100** □100    **120** □120

### ③ 형상 Shape



**S** : 직렬 Straight Type



**P** : 병렬 Paralle Type



**G** : 가이드 Guide Type

### ④ 스트로크 Stroke

**100** 100mm    **200** 200mm    **300** 300mm  
**400** 400mm    **500** 500mm

※ 500mm이상의 사양에 대해서는 특주로 대응합니다.  
 For specifications of 500mm or more, special order is available.

### ⑤ 모터 타입 Motor Type

**S** Servo    **T** Step

### ⑥ 모터 용량 Motor Capacity

기호	용량 (W)	062	080	100	120
<b>40</b>	400W	●			
<b>75</b>	750W		●	●	
<b>100</b>	1KW				●

※ 모터 및 감속기 선정은 가까운 영업소에 문의하여 주십시오.  
 Please contact your nearest sales office for motor and reducer selection.

### ⑦ 브레이크 부착 Motor Brake

**None** Without Brake    **B** With Brake

### ⑧ 센서 수량 Auto-s/w Q'ty

**1** 1개    **2** 2개    **3** 3개

### ⑨ 마운트 브라켓 Mount Bracket (Option)

**FF** 로드측 플랜지 Flange on load side    **FM** 풋 마운트 Foot mount    **FSL** 축직각 풋 마운트 Axis right angle foot mount    **TRN** 트래니언 마운트 Trunnion mount

※ 마운트 브라켓은 선택사양입니다.  
 Mount bracket is option.

## 사양 Specifications

항목	형식	PHB062	PHB080	PHB100	PHB120
본체 사이즈 Body size	mm	□62	□80	□100	□120
로드 직경 Rod diameter	mm	φ25	φ32	φ45	φ50
스크류 직경 Screw diameter	mm	φ 16	φ 20	φ 32	φ 40
스크류 리드 Screw lead	mm/rev	5	5	10	10
반복성 Repeatability	±mm	0.05			
최대스트로크 Max stroke	mm	0~500			
최대속도 Max speed	mm/sec	250	250	500	330
힘 Force (X-axis, Z-axis)(※)	kgf	X : 200 Z : 85	X : 300 Z : 160	X : 600 Z : 300	X : 1000 Z : 500
기본재질 Basic materials		알루미늄 아노다이징 Aluminum anodizing White			

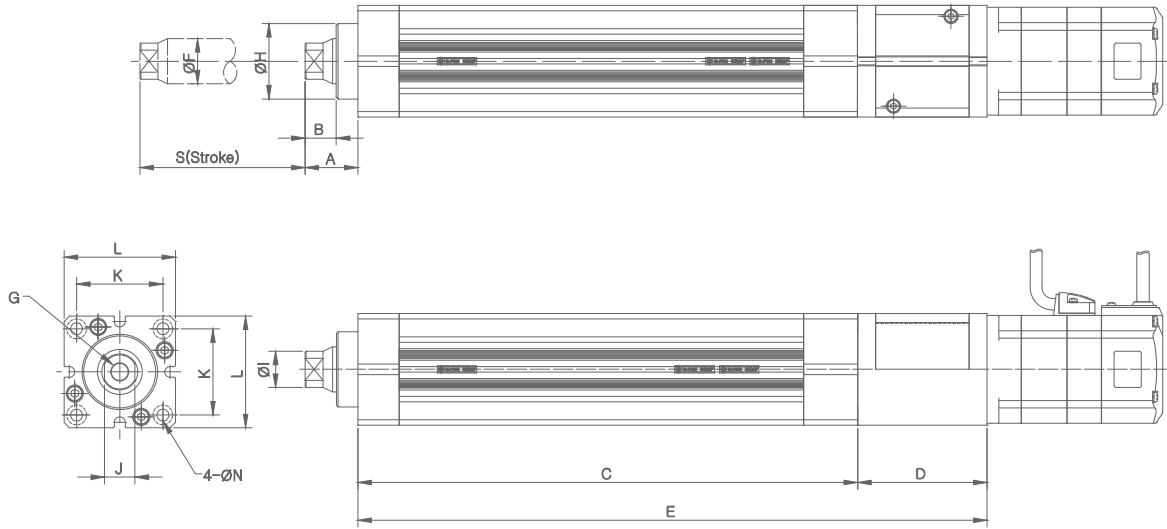
※ 힘은 기준 모터의 실효치 값입니다. 모터 변경 시 힘의 값은 상승 및 변동됩니다.

※ Force is the value of standard motor. If change the motor, Force value may vary or increase.

## 중량 Weight

스트로크 Stroke (mm)	직렬 타입 (PHB□□□S) Straight type				병렬 타입 (PHB□□□P) Parallel type				가이드 타입 (PHB□□□G) Guide type			
	062	080	100	120	062	080	100	120	062	080	100	120
100	3.5	6.0	13.5	20.8	3.0	6.5	11.0	20.4	4.5	8.0	16.0	24.0
200	4.0	6.7	15.0	23.4	3.8	7.7	12.5	23.0	5.5	9.5	18.0	27.5
300	4.5	7.7	17.0	26.0	4.5	9.0	14.5	25.4	6.5	10.5	20.0	30.5
400	5.3	8.7	19.0	28.4	5.2	10.5	16.0	28.0	7.5	11.5	22.0	33.5
500	6.0	9.7	21.0	31.0	5.8	11.5	18.0	30.5	8.5	13.0	24.0	36.5

**S** 직렬타입 Straight type



스트로크 Stroke	PHB062 S													
	A	B	C	D	E	F	G	H	I	J	K	L	M	N
100mm	30	18	278	72	350	Ø25	M10 x 1,5	Ø42	Ø23	19	48	62	-	Ø6,6
200mm	30	18	378	72	450	Ø25	M10 x 1,5	Ø42	Ø23	19	48	62	-	Ø6,6
300mm	30	18	478	72	550	Ø25	M10 x 1,5	Ø42	Ø23	19	48	62	-	Ø6,6
400mm	30	18	578	72	650	Ø25	M10 x 1,5	Ø42	Ø23	19	48	62	-	Ø6,6
500mm	30	18	678	72	750	Ø25	M10 x 1,5	Ø42	Ø23	19	48	62	-	Ø6,6

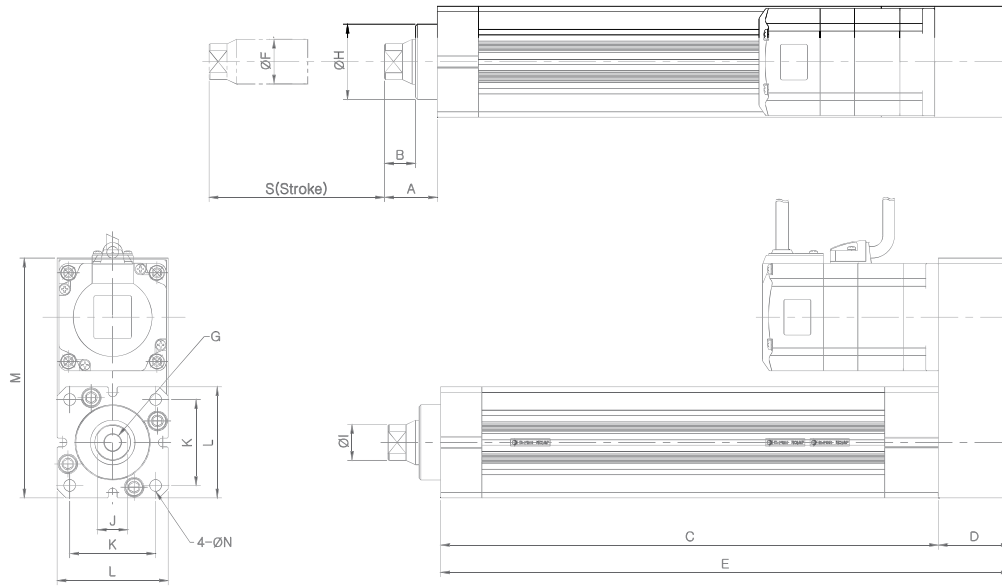
스트로크 Stroke	PHB080 S													
	A	B	C	D	E	F	G	H	I	J	K	L	M	N
100mm	30	18	313	90	403	Ø32	M14 x 2	Ø56	Ø30	24	64	80	-	Ø9
200mm	30	18	413	90	503	Ø32	M14 x 2	Ø56	Ø30	24	64	80	-	Ø9
300mm	30	18	513	90	603	Ø32	M14 x 2	Ø56	Ø30	24	64	80	-	Ø9
400mm	30	18	613	90	703	Ø32	M14 x 2	Ø56	Ø30	24	64	80	-	Ø9
500mm	30	18	713	90	803	Ø32	M14 x 2	Ø56	Ø30	24	64	80	-	Ø9

스트로크 Stroke	PHB100 S													
	A	B	C	D	E	F	G	H	I	J	K	L	M	N
100mm	50	35	383	102	485	Ø45	M16 x 2	Ø74	Ø42	34	80	100	-	Ø11
200mm	50	35	483	102	585	Ø45	M16 x 2	Ø74	Ø42	34	80	100	-	Ø11
300mm	50	35	583	102	685	Ø45	M16 x 2	Ø74	Ø42	34	80	100	-	Ø11
400mm	50	35	683	102	785	Ø45	M16 x 2	Ø74	Ø42	34	80	100	-	Ø11
500mm	50	35	783	102	885	Ø45	M16 x 2	Ø74	Ø42	34	80	100	-	Ø11

스트로크 Stroke	PHB120 S													
	A	B	C	D	E	F	G	H	I	J	K	L	M	N
100mm	50	35	438	132	570	Ø50	M20 x 2,5	Ø74	Ø48	36	96	120	-	Ø14
200mm	50	35	538	132	670	Ø50	M20 x 2,5	Ø74	Ø48	36	96	120	-	Ø14
300mm	50	35	638	132	770	Ø50	M20 x 2,5	Ø74	Ø48	36	96	120	-	Ø14
400mm	50	35	738	132	870	Ø50	M20 x 2,5	Ø74	Ø48	36	96	120	-	Ø14
500mm	50	35	838	132	970	Ø50	M20 x 2,5	Ø74	Ø48	36	96	120	-	Ø14

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**P** 병렬타입 Parallel type



스트로크 Stroke	PHB062 P													
	A	B	C	D	E	F	G	H	I	J	K	L	M	N
100mm	30	18	278	42	320	Ø25	M10 x 1,5	Ø42	Ø23	19	48	62	134	Ø6,6
200mm	30	18	378	42	420	Ø25	M10 x 1,5	Ø42	Ø23	19	48	62	134	Ø6,6
300mm	30	18	478	42	520	Ø25	M10 x 1,5	Ø42	Ø23	19	48	62	134	Ø6,6
400mm	30	18	578	42	620	Ø25	M10 x 1,5	Ø42	Ø23	19	48	62	134	Ø6,6
500mm	30	18	678	42	720	Ø25	M10 x 1,5	Ø42	Ø23	19	48	62	134	Ø6,6

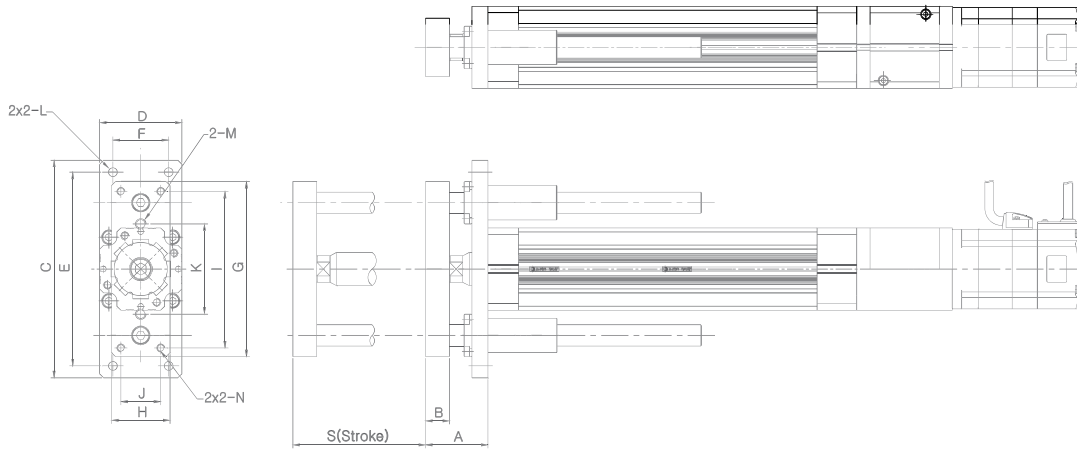
스트로크 Stroke	PHB080 P													
	A	B	C	D	E	F	G	H	I	J	K	L	M	N
100mm	30	18	313	54	367	Ø32	M14 x 2	Ø56	Ø30	24	64	80	174	Ø9
200mm	30	18	413	54	467	Ø32	M14 x 2	Ø56	Ø30	24	64	80	174	Ø9
300mm	30	18	513	54	567	Ø32	M14 x 2	Ø56	Ø30	24	64	80	174	Ø9
400mm	30	18	613	54	667	Ø32	M14 x 2	Ø56	Ø30	24	64	80	174	Ø9
500mm	30	18	713	54	767	Ø32	M14 x 2	Ø56	Ø30	24	64	80	174	Ø9

스트로크 Stroke	PHB100 P													
	A	B	C	D	E	F	G	H	I	J	K	L	M	N
100mm	50	35	383	62	445	Ø45	M16 x 2	Ø74	Ø42	34	80	100	214	Ø11
200mm	50	35	483	62	545	Ø45	M16 x 2	Ø74	Ø42	34	80	100	214	Ø11
300mm	50	35	583	62	645	Ø45	M16 x 2	Ø74	Ø42	34	80	100	214	Ø11
400mm	50	35	683	62	745	Ø45	M16 x 2	Ø74	Ø42	34	80	100	214	Ø11
500mm	50	35	783	62	845	Ø45	M16 x 2	Ø74	Ø42	34	80	100	214	Ø11

스트로크 Stroke	PHB120 P													
	A	B	C	D	E	F	G	H	I	J	K	L	M	N
100mm	50	35	438	70	508	Ø50	M20 x 2,5	Ø74	Ø48	36	96	120	267	Ø14
200mm	50	35	538	70	608	Ø50	M20 x 2,5	Ø74	Ø48	36	96	120	267	Ø14
300mm	50	35	638	70	708	Ø50	M20 x 2,5	Ø74	Ø48	36	96	120	267	Ø14
400mm	50	35	738	70	808	Ø50	M20 x 2,5	Ø74	Ø48	36	96	120	267	Ø14
500mm	50	35	838	70	908	Ø50	M20 x 2,5	Ø74	Ø48	36	96	120	267	Ø14

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**G** 가이드타입 Guide type



스트로크 Stroke	PHB062 G													
	A	B	C	D	E	F	G	H	I	J	K	L	M	N
100mm	48	18	164	62	146	42	132	44	118	30	68	Ø8,5	M8	M6
200mm	48	18	164	62	146	42	132	44	118	30	68	Ø8,5	M8	M6
300mm	48	18	164	62	146	42	132	44	118	30	68	Ø8,5	M8	M6
400mm	48	18	164	62	146	42	132	44	118	30	68	Ø8,5	M8	M6
500mm	48	18	164	62	146	42	132	44	118	30	68	Ø8,5	M8	M6

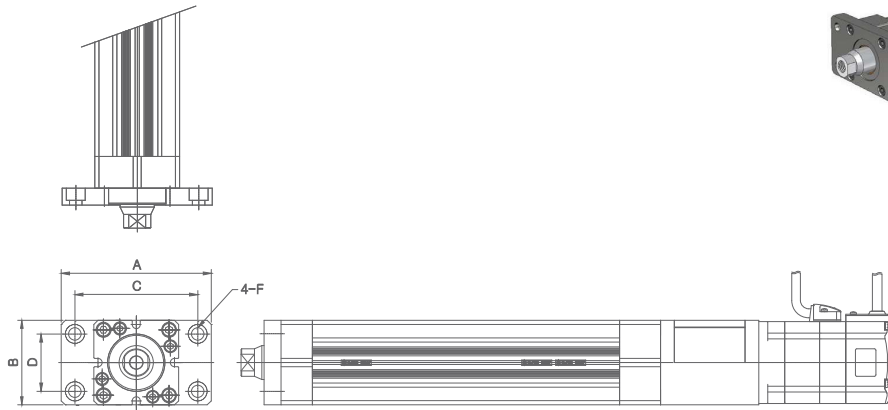
스트로크 Stroke	PHB080 G													
	A	B	C	D	E	F	G	H	I	J	K	L	M	N
100mm	48	18	184	80	166	58	152	44	138	30	80	Ø9	M8	M6
200mm	48	18	184	80	166	58	152	44	138	30	80	Ø9	M8	M6
300mm	48	18	184	80	166	58	152	44	138	30	80	Ø9	M8	M6
400mm	48	18	184	80	166	58	152	44	138	30	80	Ø9	M8	M6
500mm	48	18	184	80	166	58	152	44	138	30	80	Ø9	M8	M6

스트로크 Stroke	PHB100 G													
	A	B	C	D	E	F	G	H	I	J	K	L	M	N
100mm	70	20	204	100	182	78	172	58	140	40	80	Ø11	M10	M8
200mm	70	20	204	100	182	78	172	58	140	40	80	Ø11	M10	M8
300mm	70	20	204	100	182	78	172	58	140	40	80	Ø11	M10	M8
400mm	70	20	204	100	182	78	172	58	140	40	80	Ø11	M10	M8
500mm	70	20	204	100	182	78	172	58	140	40	80	Ø11	M10	M8

스트로크 Stroke	PHB120 G													
	A	B	C	D	E	F	G	H	I	J	K	L	M	N
100mm	70	20	224	120	202	98	192	78	160	60	96	Ø14	M10	M8
200mm	70	20	224	120	202	98	192	78	160	60	96	Ø14	M10	M8
300mm	70	20	224	120	202	98	192	78	160	60	96	Ø14	M10	M8
400mm	70	20	224	120	202	98	192	78	160	60	96	Ø14	M10	M8
500mm	70	20	224	120	202	98	192	78	160	60	96	Ø14	M10	M8

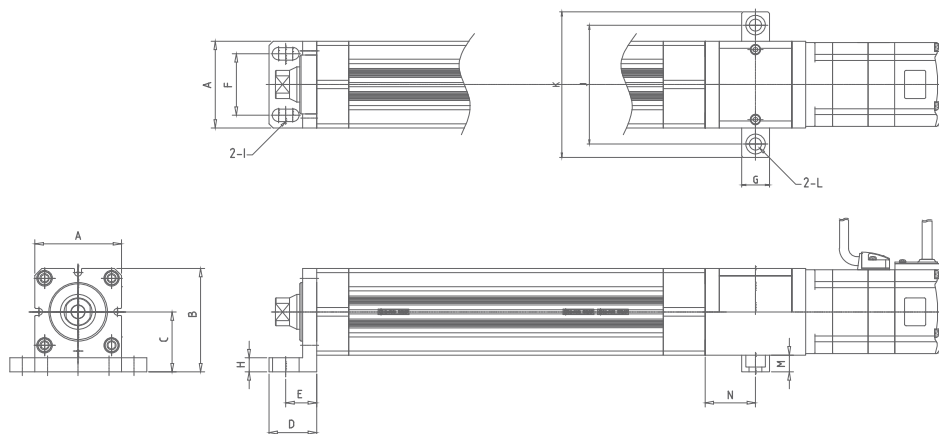
※ 본 제품 설명서에 수록된 내용 및 모든 제품의 사양은 품질의 향상을 위하여 사전 예고없이 변경될 수 있습니다.  
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**FF** 로드측 플랜지 마운트 Flange on load side



프레임 Body Size	치수 Dimension (mm)					
	A	B	C	D	E	F
□062	110	62	90	42	12,5	∅9
□080	128	80	108	60	12,5	∅9
□100	150	100	125	76	16	∅11
□120	172	120	147	96	16	∅14

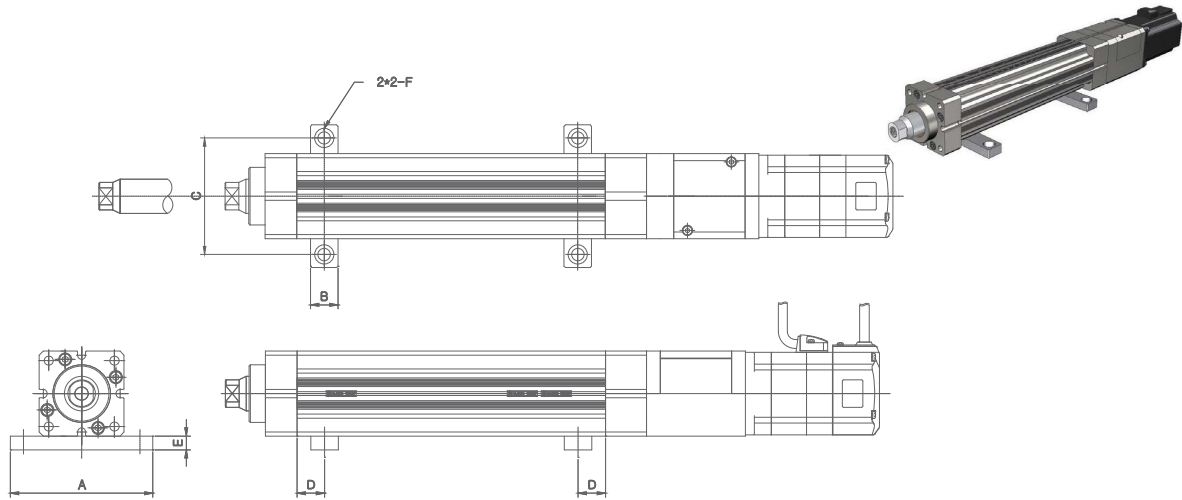
**FM** 풋 마운트 Foot mount



프레임 Body Size	치수 Dimension (mm)													
	A	B	C	D	E	F	G	H	I	J	K	L	M	N
□062	62	72	41	34	22	44	20	10	R4,5	85	104	∅8,5	12	36
□080	80	92	52	36	24	62	20	12	R4,5	105	124	∅8,5	14	45
□100	100	125	75	45	30	80	24	15	R5,5	124	146	∅11	17	51
□120	120	145	85	45	30	96	28	15	R5,5	144	166	∅11	17	66

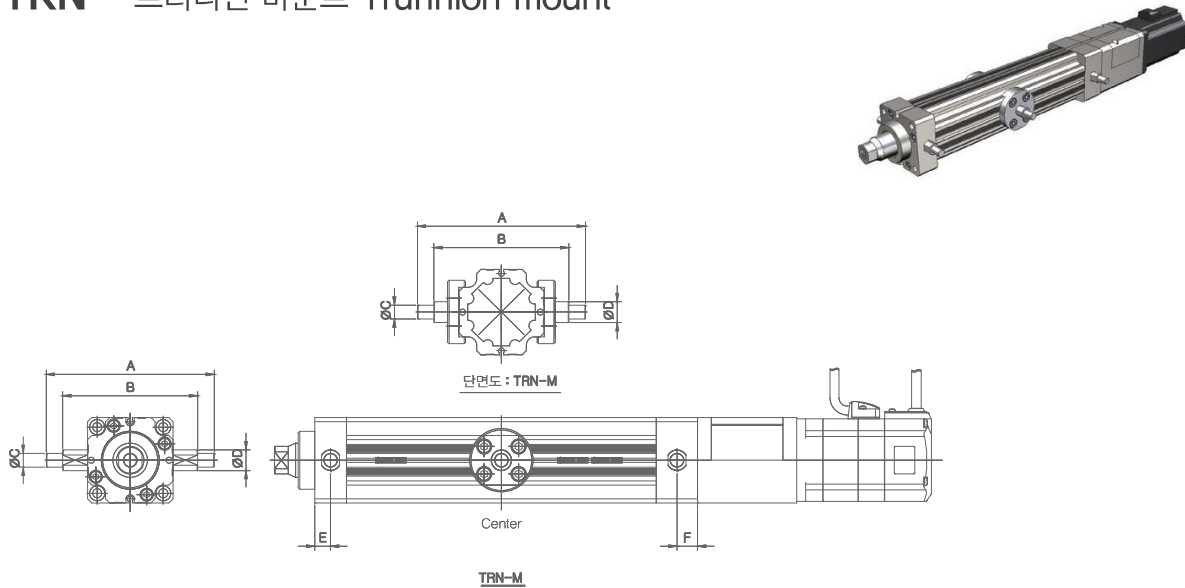
# 마운트브래킷 치수도 Dimension of Mount Bracket (mm)

## FSL 축직각 풋 마운트 Axis right angle foot mount



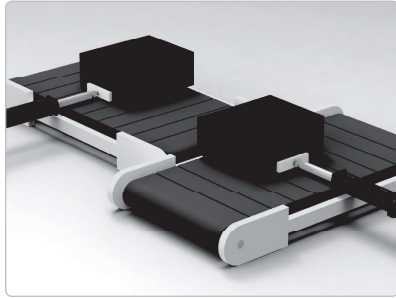
프레임 Body Size	치수 Dimension (mm)					
	A	B	C	D	E	F
□062	104	20	85	20	10	Ø9
□080	124	20	105	25	12	Ø9
□100	146	24	124	35	14	Ø11
□120	166	28	144	40	16	Ø11

## TRN 트러니언 마운트 Trunnion mount

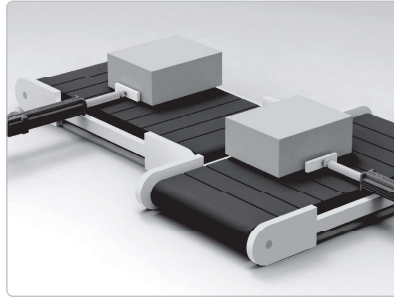


프레임 Body Size	치수 Dimension (mm)					
	A	B	C	D	E	F
□062	122	98	Ø10	Ø15	11,5	15
□080	140	116	Ø10	Ø15	11,5	20
□100	172	142	Ø15	Ø20	15	31,5
□120	192	162	Ø15	Ø20	15	49

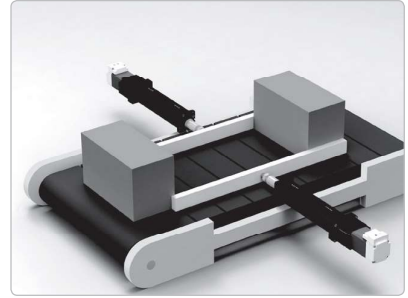




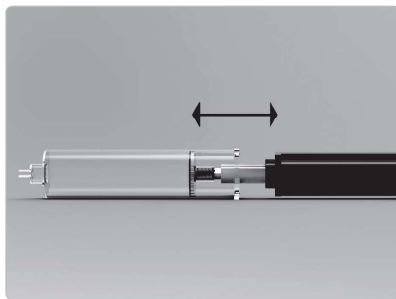
» Conveyor Push



» Conveyor Push



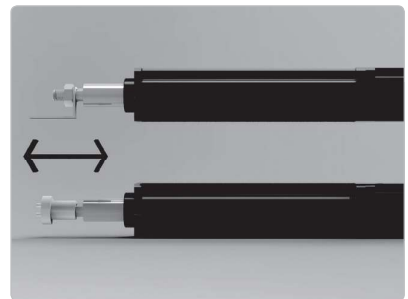
» Conveyor



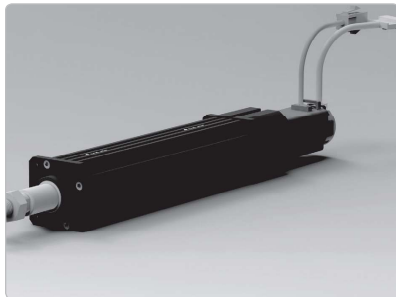
» Syringe Injection



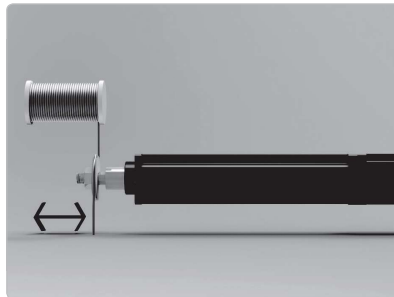
» Bottle Guide Height Change



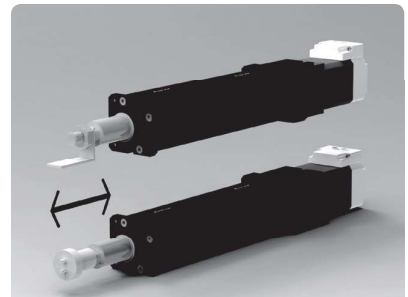
» Switch Test (Right)



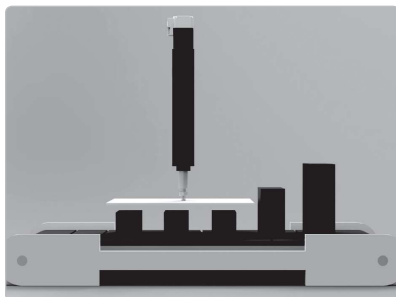
» Smart Actuator



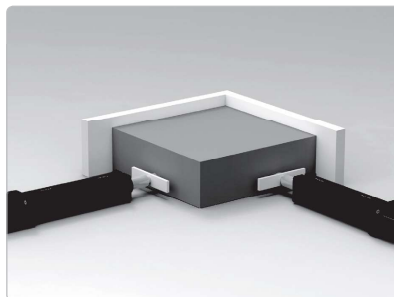
» Resolute Position Motion



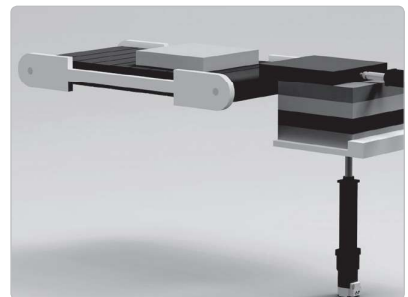
» Switch Test (Trimetric)



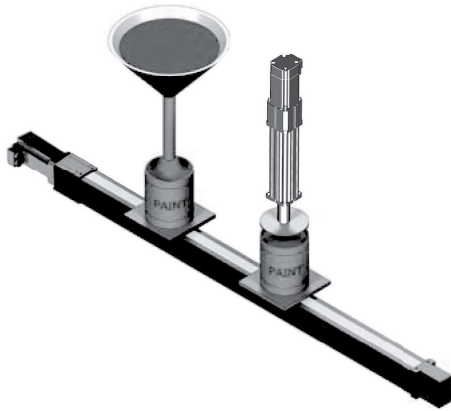
» Conveyor High



» Work Fix



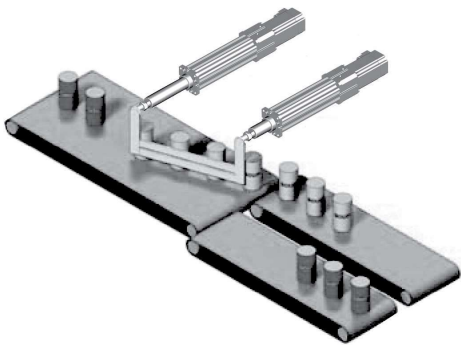
» Conveyor Verticality (Trimetric)



## Position, Fill, Assemble

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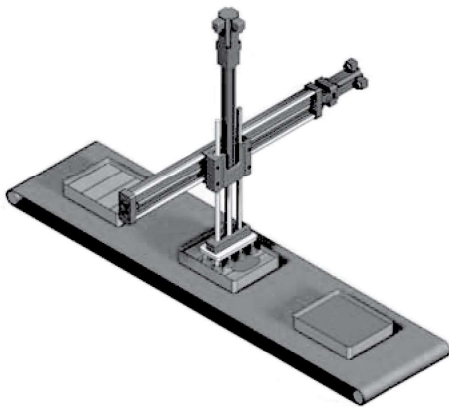
- Printing
- Part Verification
- Precision Filling
- Stamping
- Pressing
- Labeling



## Gating, Sorting

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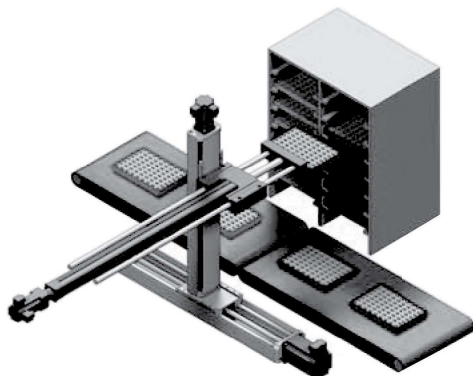
- Rejection
- Guiding
- Guide rail width change



## Applying, Dispensing

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- Spraying
- Cutting
- Slitting
- Test Fixtures
- Inspection
- Filling Nozzle Positioning

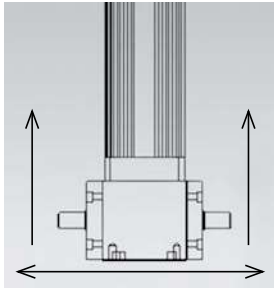


## Storage, Retrieval

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- Parts Transfer
- Pick & Place
- Stacking
- Sorting
- Palletizing/De-palletizing

### 적용 시 주의사항



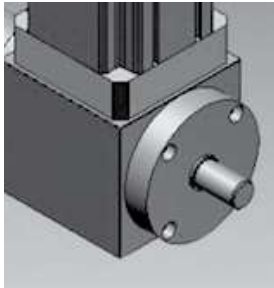
- 가장 중요한 사항으로써 실린더의 수평이 유지되지 않으면 소음과 진동의 원인이 됩니다.

- Most importantly, if the cylinder is not leveled, it will cause noise and vibration.

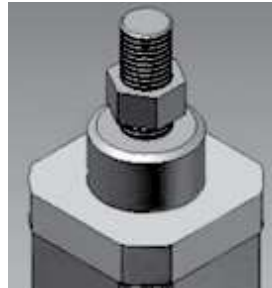
#### ALIGNMENT

2대 이상의 회전 및 승하강 기계를 조합할 때 운동축의 비틀림, 열팽창, 베어링 하중의 적절한 배분이 이루어질 수 있도록 상호간 회전 및 승하강 중심선이 정확히 일치하도록 배열해야 합니다.

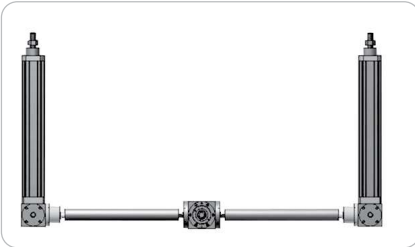
When combining two or more rotating and lifting machines, they must be arranged in such a way that the center of rotation and elevation center line are aligned exactly so that the twisting, thermal expansion and bearing load of the axis of motion can be properly distributed.



- 취부 될 프레임에 억지로 실린더를 조립할 시 ROD의 편심 현상이 날 수 있으며 이는 실린더 수명에 심각한 결과를 초래합니다.
- Assembling the cylinder forcibly to the frame to be attached may cause eccentricity of the rod, which can seriously affect cylinder life.

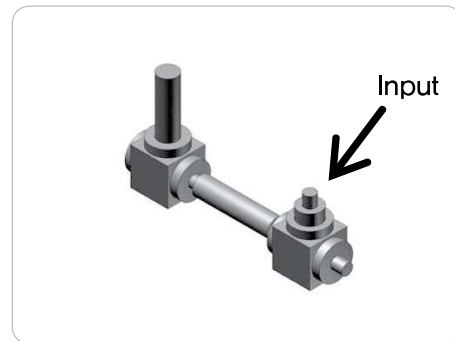
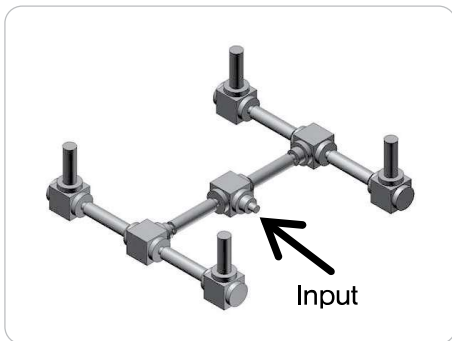
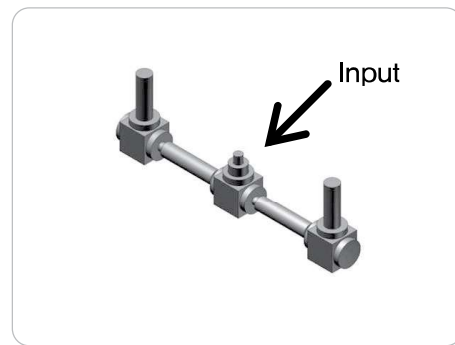
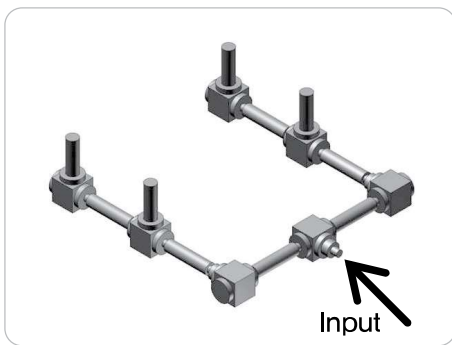


- 상, 하부 조립시 조립 볼트에 의한 비틀림이 일어나지 않도록 주의해야 합니다.
- Be careful not to twist by bolt when assembling upper and lower part.



- ROD 끝 부분에 위치한 나사를 이용해 각 실린더의 LEVEL을 동일하게 유지합니다. LEVEL이 유지되지 않을 시 편하중 및 모터의 과부하 현상이 일어날 수 있습니다.
- Keep the level of each cylinder the same with the screw located at the end of the rod. If level is not maintained, may occur overload to motor.

### 적용 형태 (예) Application Type (Example)



# PISCO

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