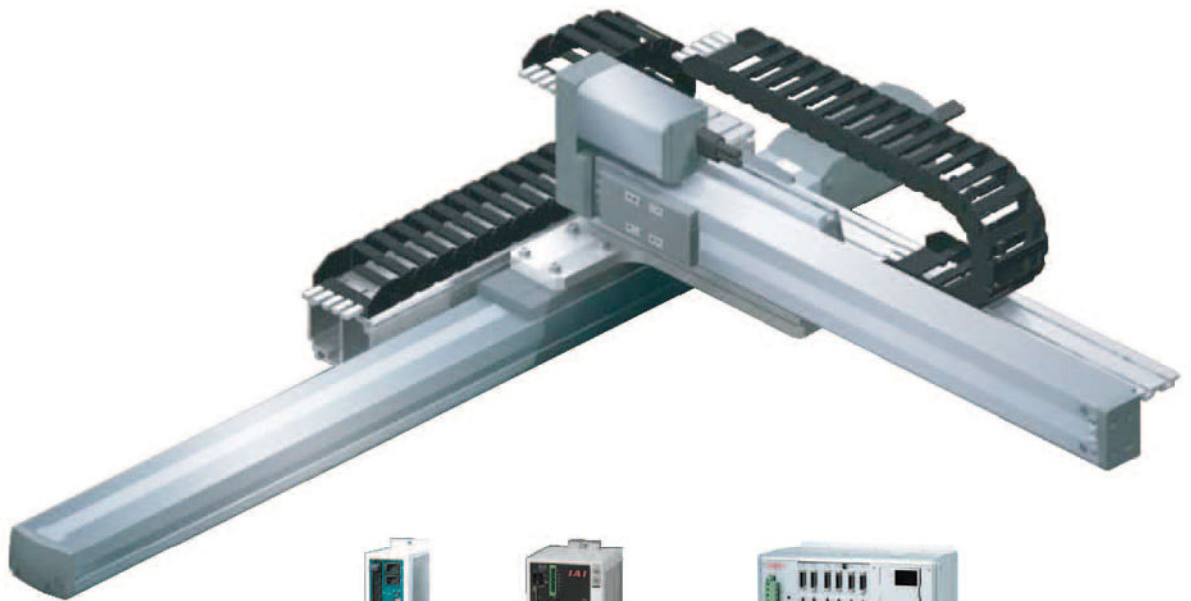


Cartesian Robot

IK Series

 **ROBO
CYLINDER**

1-2-axis program controller that achieves high cost performance.



High-performance 1-6-axis program controller.

PSEL SSEL

X-SEL

RCP2 Axes Combined

- **2-Axis Pulse Motor System IK2-P**
x: RCP2 - SS7(8)C/R y: RCP2-SA5(6)(7)R
- **3-Axis Pulse Motor System IK3-P**
x: RCP2-SS8R y: RCP2-SA7R z: RCP2-SA6R

RCS2 Axes Combined

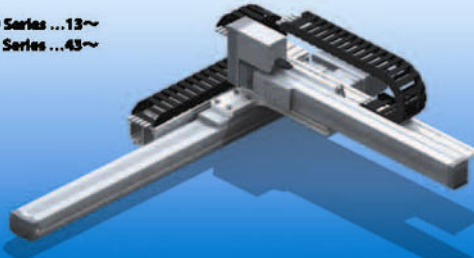
- **2-Axis Servo Motor System IK2-S**
x: RCS2-SS7(8)C/R y: RCS2-SA5(6)(7)(8)R
- **3-Axis Servo Motor System IK3-S**
x: RCS2-SS8R y: RCS2-SA7R z: RCS2-SA6R

Wide-ranging Lineup Lineup of IK Series

Combinations

XYB (XY, base mount)

Page
IK2-PXBD Series ...13~
IK2-SXBD Series ...43~

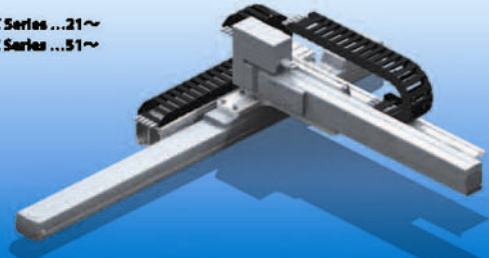


• IK2-PXBD Series

• IK2-SXBD Series

		Maximum X-axis stroke	Maximum Y-axis stroke	Load capacity at maximum Y-axis stroke
Single-slider	Y high-speed type	600mm	200mm	2.5kg
	Y medium-speed type	600mm	200mm	5.0kg
Double-slider	Y high-speed type	450mm	400mm	2.0kg
	Y medium-speed type	450mm	400mm	4.0kg

Page
IK2-PXBC Series ...21~
IK2-SXBC Series ...31~



• IK2-PXBC Series

• IK2-SXBC Series

		Maximum X-axis stroke	Maximum Y-axis stroke	Load capacity at maximum Y-axis stroke
Single-slider	Y high-speed type	600mm	200mm	3.0kg
	Y medium-speed type	600mm	200mm	6.0kg
Double-slider	Y high-speed type	450mm	400mm	3.0kg
	Y medium-speed type	450mm	400mm	6.0kg

XZ (Upright type)

Page
IK2-PXZB Series ...37~
IK2-SXZB Series ...75~



• IK2-PXZB Series

• IK2-SXZB Series

		Maximum X-axis stroke	Maximum Z-axis stroke	Load capacity at maximum Y-axis stroke
Single-slider	X high-speed/Z high-speed type	1,000mm	250mm	1.5kg
	X high-speed/Z medium-speed type	1,000mm	250mm	2.5kg
	X high-speed/Z low-speed type	1,000mm	250mm	3.0kg
Double-slider	X high-speed/Z high-speed type	800mm	300mm	1.5kg
	X high-speed/Z medium-speed type	800mm	300mm	3.0kg
	X high-speed/Z low-speed type	800mm	300mm	5.5kg

YZB (Cross type, base mount)

Page
IK2-PYBB Series ...41~
IK2-SYBB Series ...79~



• IK2-PYBB Series

• IK2-SYBB Series

		Maximum X-axis stroke	Maximum Z-axis stroke	Load capacity at maximum Y-axis stroke
Single-slider	X high-speed/Z high-speed type	1,000mm	300mm	1.5kg
	X high-speed/Z medium-speed type	1,000mm	300mm	3.0kg
	X high-speed/Z low-speed type	1,000mm	300mm	5.5kg

IK2-P Series / IK3-P Series

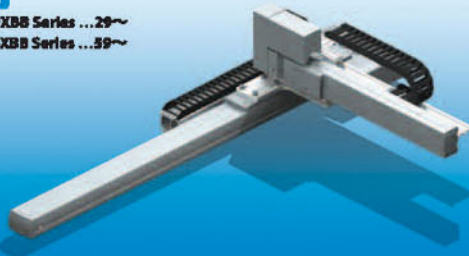
ROBO Cylinder RCP2 combinations based on pulse motor

IK2-S Series / IK3-S Series

ROBO Cylinder RCS2 combinations based on servo motor

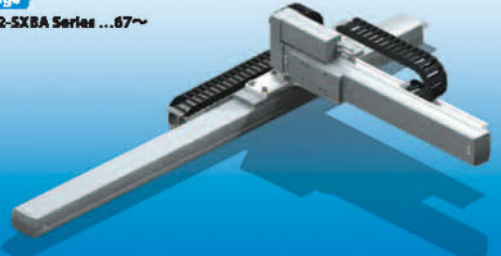
Page

IK2-PXBB Series ...29~
IK2-SXBB Series ...39~



Page

IK2-SXBA Series ...67~



• IK2-PXBB Series

• IK2-SXBB Series

		Maximum X-axis stroke	Maximum Y-axis stroke	Load capacity at maximum Y-axis stroke
Single-slider	High-speed type	1,000mm	300mm	6.0kg
	Medium-speed type	1,000mm	300mm	8.0kg
Double-slider	High-speed type	800mm	400mm	5.5kg
	Medium-speed type	800mm	400mm	10.5kg

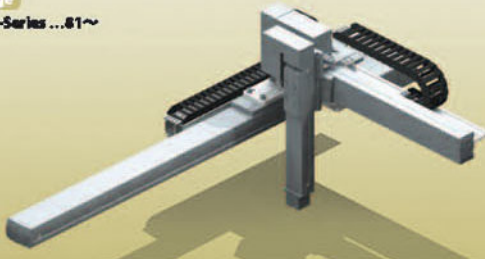
• IK2-SXBA Series

		Maximum X-axis stroke	Maximum Y-axis stroke	Load capacity at maximum Y-axis stroke
Single-slider	High-speed type	1,000mm	350mm	7.0kg
	Medium-speed type	1,000mm	200mm	12.5kg
Double-slider	High-speed type	800mm	400mm	10.0kg
	Medium-speed type	800mm	400mm	11.5kg

3-axis type (XYB+Z, base mount)

Page

IK3-Series ...61~



• IK3 Series

		Maximum X-axis stroke	Maximum Y-axis stroke	Maximum Z-axis stroke	Load capacity at maximum Y-axis stroke
Single-slider	X high-speed/Y high-speed/Z high-speed type	1,000mm	300mm	200mm	1.0kg
	X high-speed/Y high-speed/Z medium-speed type	1,000mm	300mm	200mm	2.0kg
	X high-speed/Y high-speed/Z low-speed type	1,000mm	300mm	200mm	4.0kg
Double-slider	X high-speed/Y high-speed/Z high-speed type	800mm	400mm	200mm	1.0kg
	X high-speed/Y high-speed/Z medium-speed type	800mm	400mm	200mm	2.0kg
	X high-speed/Y high-speed/Z low-speed type	800mm	400mm	200mm	4.0kg

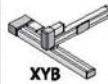
2-axis combination – Axis configurations

	Axis 1	Axis 2
IK2-PXBD	RCP2-SS7□	RCP2-SA5R
IK2-SXBD	RCS2-SS7□	RCS2-SA5R
IK2-PXBC	RCP2-SS7□	RCP2-SA6R
IK2-SXBC	RCS2-SS7□	RCS2-SA6R
IK2-PXBB	RCP2-SS8□	RCP2-SA7R
IK2-SXBB	RCS2-SS8□ (100W)	RCS2-SA7R
IK2-SXBA	RCS2-SS8□ (150W)	RCS2-SS8R (100W)
IK2-PXZB	RCP2-SS8□	RCP2-SA7R
IK2-SXZB	RCS2-SS8□ (100W)	RCS2-SA7R
IK2-PYBB	RCP2-SS8□	RCP2-SA7R
IK2-SYBB	RCS2-SS8□ (100W)	RCS2-SA7R

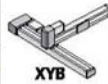
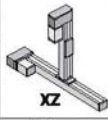
3-axis combination – Axis configurations

	X axis	Y axis	Z axis
IK3	RCP2-SS8□	RCP2-SA7R	RCP2-SA6R
	RCS2-SS8□ (100W)	RCS2-SA7R	RCS2-SA6R

RCP2 Combination Unit List for 2-axis Configuration (XYB) (□ in the model names indicates a value from 1 to 4 specifying the combination direction. For the combination directions, refer to P. 10.)

Page	Combination model	Combined shape	Axis 1				Axis 2		
			Type	Motor size	Lead (mm)	Maximum speed (mm/sec)	Stroke (mm)	Type	
13	IK2-PXBD1□HHS		SS7R Reversed	42□	12	400	50-600	SA5R Reversed	
	IK2-PXBD1□HMS				12	350			
15	IK2-PXBD1□HHD		SS7R Reversed, double-slider		12	400	50-450		
	IK2-PXBD1□HMD				12	350			
17	IK2-PXBD2□HHS		SS7C Straight		12	400	50-600		
	IK2-PXBD2□HMS				12	350			
19	IK2-PXBD2□HHD		SS7C Straight, double-slider		12	400	50-450		
	IK2-PXBD2□HMD				12	350			
21	IK2-PXBC1□HHS		XYB		SS7R Reversed	12	400	50-600	SA6R Reversed
	IK2-PXBC1□HMS					12	250		
23	IK2-PXBC1□HHD				SS7R Reversed, double-slider	12	400	50-450	
	IK2-PXBC1□HMD					12	250		
25	IK2-PXBC2□HHS				SS7C Straight	12	400	50-600	
	IK2-PXBC2□HMS					12	250		
27	IK2-PXBC2□HHD				SS7C Straight, double-slider	12	400	50-450	
	IK2-PXBC2□HMD					12	250		
29	IK2-PXBB1□HHS	XYB	SS8R Reversed	20	250	50-1000	SA7R Reversed		
	IK2-PXBB1□HMS			10	125				
31	IK2-PXBB1□HHD		SS8R Reversed, double-slider	20	250	50-800			
	IK2-PXBB1□MMD			10	125				
33	IK2-PXBB2□HHS		SS8C Straight	20	250	50-1000			
	IK2-PXBB2□MMS			10	125				
35	IK2-PXBB2□HHD		SS8C Straight, double-slider	20	250	50-800			
	IK2-PXBB2□MMD			10	125				
37	IK2-PXZB1□HHS		SS8R Reversed	56□	20	250	50-1000	SA7R Reversed	
	IK2-PXZB1□HMS								SS8R Reversed, double-slider
IK2-PXZB1□HLS	SS8R Reversed, double-slider								
IK2-PXZB1□HHD									
39	IK2-PXZB1□HMD	SS8R Reversed, double-slider	56□		20	250	50-800		
	IK2-PXZB1□HLD								
41	IK2-PYBB1□HHS		SS8R Reversed		56□	20	250		50-1000
	IK2-PYBB1□HMS								
	IK2-PYBB1□HLS								

RCS2 Combination Unit List for 2-axis Configuration (XYB) (□ in the model names indicates a value from 1 to 4 specifying the combination direction. For the combination directions, refer to P. 10.)

Page	Combination model	Combined shape	Axis 1				Axis 2	
			Type	Motor output (W)	Lead (mm)	Maximum speed (mm/sec)	Stroke (mm)	Type
43	IK2-SXBD1□HHS		SS7R Reversed	60	12	600	50-600	SA5R Reversed
	IK2-SXBD1□HMS		12		600	50-450		
45	IK2-SXBD1□HHD		12		600	50-450		
	IK2-SXBD1□HMD		12		600	50-450		
47	IK2-SXBD2□HHS		SS7C Straight		12	600	50-600	
	IK2-SXBD2□HMS		12		600	50-600		
49	IK2-SXBD2□HHD		SS7C Straight, double-slider		12	600	50-450	
	IK2-SXBD2□HMD		12		600	50-450		
51	IK2-SXBC1□HHS		SS7R Reversed	12	600	50-600	SA6R Reversed	
	IK2-SXBC1□HMS		6	300	50-600			
53	IK2-SXBC1□HHD		SS7R Reversed, double-slider	12	600	50-450		
	IK2-SXBC1□HMD		6	300	50-450			
55	IK2-SXBC2□HHS		SS7C Straight	12	600	50-600		
	IK2-SXBC2□HMS		6	300	50-600			
57	IK2-SXBC2□HHD		SS7C Straight, double-slider	12	600	50-450		
	IK2-SXBC2□HMD		6	300	50-450			
59	IK2-SXBB1□HHS	SS8R (100W) Reversed	20	1000	50-1000	SA7R Reversed		
	IK2-SXBB1□HMS	10	500	50-800				
61	IK2-SXBB1□HHD	SS8R (100W) Reversed, double-slider	20	1000	50-800			
	IK2-SXBB1□HMD	10	500	50-800				
63	IK2-SXBB2□HHS	SS8C (100W) Straight	20	1000	50-1000			
	IK2-SXBB2□HMS	10	500	50-1000				
65	IK2-SXBB2□HHD	SS8C (100W) Straight, double-slider	20	1000	50-800			
	IK2-SXBB2□HMD	10	500	50-800				
67	IK2-SXBA1□HHS	SS8R (150W) Reversed	20	1000	50-1000	SS8R (100W) Reversed		
	IK2-SXBA1□HMS	10	500	50-800				
69	IK2-SXBA1□HHD	SS8R (150W) Reversed, double-slider	20	1000	50-800			
	IK2-SXBA1□HMD	10	500	50-800				
71	IK2-SXBA2□HHS	SS8C (150W) Straight	20	1000	50-1000			
	IK2-SXBA2□HMS	10	500	50-1000				
73	IK2-SXBA2□HHD	SS8C (150W) Straight, double-slider	20	1000	50-800			
	IK2-SXBA2□HMD	10	500	50-800				
75	IK2-SXZB1□HHS		SS8R (100W) Reversed	100	20	1000	50-1000	SA7R Reversed
	IK2-SXZB1□HMS		50-800					
77	IK2-SXZB1□HHD		SS8R (100W) Reversed, double-slider				50-800	
	IK2-SXZB1□HMD							
79	IK2-SYBB1□HHS		SS8R (100W) Reversed				50-1000	
	IK2-SYBB1□HMS							
	IK2-SYBB1□HLS							

Axis 2				Load capacity by axis 2 stroke									
Motor size	Lead (mm)	Maximum speed (mm/sec)	Stroke (mm)	50	100	150	200	250	300	350	400		
42□	12	600	50-200	3.0	3.0	2.5	2.5						
	6	300	50-200	6.0	6.0	5.0	5.0						
	12	600	250-400					2.5	2.0	2.0	2.0		
	6	300	250-400					5.0	4.0	4.0	4.0		
	12	600	50-200	3.0	3.0	2.5	2.5						
	6	300	50-200	6.0	6.0	5.0	5.0						
42□	12	600	250-400					2.5	2.0	2.0	2.0		
	6	300	250-400					5.0	4.0	4.0	4.0		
	12	600	50-200	4.5	4.5	4.0	3.0						
	6	300	50-200	9.0	9.0	8.0	6.0						
	12	600	250-400					3.0	3.0	3.0	3.0		
	6	300	250-400					6.0	6.0	6.0	6.0		
56□	12	600	50-200	4.5	4.5	4.0	3.0						
	6	300	50-200	9.0	9.0	8.0	6.0						
	12	600	250-400					3.0	3.0	3.0	3.0		
	6	300	250-400					6.0	6.0	6.0	6.0		
	16	450	50-300	8.0	8.0	7.0	7.0	6.0	6.0				
	8	220	50-300	16.0	16.0	15.0	12.5	9.0	8.0				
56□	16	450	350-400							6.0	5.5		
	8	220	200-400				15.0	12.5	12.5	12.0	10.5		
	16	450	50-300	8.0	8.0	7.0	7.0	6.0	6.0				
	8	220	50-300	16.0	16.0	15.0	12.5	9.0	8.0				
	16	450	350-400							6.0	5.5		
	8	220	200-400				15.0	12.5	12.5	12.0	10.5		
56□	16	360	50-250	2.0	2.0	2.0	2.0	1.5					
	8	180	50-250	4.0	4.0	3.5	3.5	2.5					
	4	90	50-250	8.0	7.0	5.0	4.0	3.0					
	16	400	300						1.5				
	8	200	300						3.0				
	4	100	150-300			7.0	7.0	5.5	5.5				
56□	16	360	50-300	2.0	2.0	2.0	2.0	1.5	1.5				
	8	180	50-300	4.0	4.0	3.5	3.5	3.0	3.0				
	4	90	50-300	8.0	8.0	7.0	7.0	6.0	5.5				

Axis 2				Load capacity by axis 2 stroke							
Motor output (W)	Lead (mm)	Maximum speed (mm/sec)	Stroke (mm)	50	100	150	200	250	300	350	400
20	12	800	50-200	3.0	3.0	2.5	2.5				
	6	400	50-200	6.0	6.0	5.0	5.0				
	12	800	250-400					2.5	2.0	2.0	2.0
	6	400	250-400					5.0	4.0	4.0	4.0
	12	800	50-200	3.0	3.0	2.5	2.5				
	6	400	50-200	6.0	6.0	5.0	5.0				
30	12	800	250-400					2.5	2.0	2.0	2.0
	6	400	250-400					5.0	4.0	4.0	4.0
	12	800	50-200	4.5	4.5	4.0	3.0				
	6	400	50-200	9.0	9.0	8.0	6.0				
	12	800	250-400					3.0	3.0	3.0	3.0
	6	400	250-400					6.0	6.0	6.0	6.0
60	16	800	50-300	8.0	8.0	7.0	7.0	6.0	6.0		
	8	400	50-300	16.0	16.0	15.0	12.5	9.0	8.0		
	16	800	350-400							6.0	5.5
	8	400	200-400				15.0	12.5	12.5	12.0	10.5
	16	800	50-300	8.0	8.0	7.0	7.0	6.0	6.0		
	8	400	50-300	16.0	16.0	15.0	12.5	9.0	8.0		
100	16	800	350-400							6.0	5.5
	8	400	200-400				15.0	12.5	12.5	12.0	10.5
	20	1000	50-350	12.0	12.0	11.5	11.0	10.0	8.5	7.0	
	10	500	50-350	24.0	20.5	15.5	12.5				
	20	1000	300-400							11.0	10.5
	10	500	100-400		24.0	24.0	23.0	19.0	16.0	13.5	11.5
60	20	1000	50-350	12.0	12.0	11.5	11.0	10.0	8.5	7.0	
	10	500	50-350	24.0	20.5	15.5	12.5				
	20	1000	300-400							11.0	10.5
	10	500	100-400		24.0	24.0	23.0	19.0	16.0	13.5	11.5
	16	800	50-250	2.0	2.0	2.0	2.0	1.5			
	8	400	50-250	4.0	4.0	3.5	3.5	2.5			
60	4	200	50-250	8.0	7.0	5.0	4.0	3.0			
	16	800	300						1.5		
	8	400	300						3.0		
	4	200	150-300			7.0	7.0	5.5	5.5		
	16	800	50-300	2.0	2.0	2.0	2.0	1.5	1.5		
	8	400	50-300	4.0	4.0	3.5	3.5	3.0	3.0		

RCP2 Combination Unit List for 3-axis Configuration (XYB+Z-axes, base mount) (□ in the model names indicates a value from 1 to 4 specifying the combination direction. For the combination directions, refer to P. 10.)

Page	Combination model	Combined shape	X axis					Y axis	
			Type	Motor size	Lead (mm)	Maximum speed (mm/sec)	Stroke (mm)	Type	
81	IK3-PBBG1□HHHS	XYB+Z, base mount	SS8R Reversed, single-slider	56□	20	220	50-1000	SA7R Reversed	
	IK3-PBBG1□HHMS								
	IK3-PBBG1□HHLS								
83	IK3-PBBG1□HHHD		SS8R Reversed, double-slider				50-800		
	IK3-PBBG1□HHMD								

RCS2 Combination Unit List for 3-axis Configuration (XYB+Z-axes, base mount) (□ in the model names indicates a value from 1 to 4 specifying the combination direction. For the combination directions, refer to P. 10.)

Page	Combination model	Combined shape	X axis					Y axis	
			Type	Motor output (W)	Lead (mm)	Maximum speed (mm/sec)	Stroke (mm)	Type	
85	IK3-SBBG1□HHHS	XYB+Z, base mount	SS8R (100W) Reversed, single-slider	100	20	1000	50-1000	SA7R Reversed	
	IK3-SBBG1□HHMS								
	IK3-SBBG1□HHLS								
88	IK3-SBBG1□HHHD		SS8R (100W) Reversed, double-slider				50-800		
	IK3-SBBG1□HHMD								

Tips on Selection

1. Differences between RCP2 and RCS2

Features of RCP2

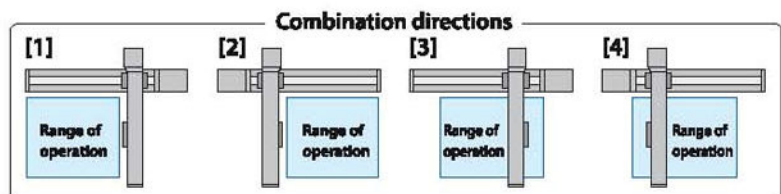
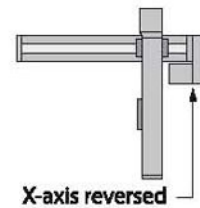
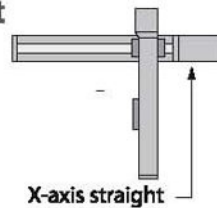
- [1] Adopting a pulse motor.
- [2] Characterized by high thrust at low speed.
- [3] Less expensive than the RCS2.

Features of RCS2

- [1] Adopting a servo motor.
- [2] Able to operate at a constant thrust regardless of the speed.
- [3] Able to move at higher speeds than the RCP2.

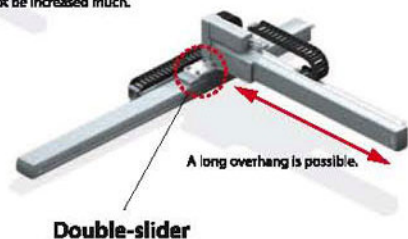
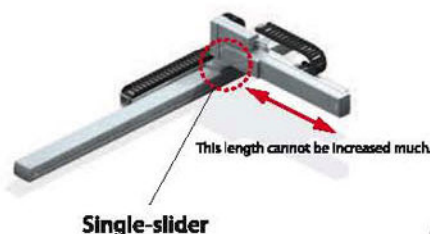
2. Differences between X-axis Straight and Reversed Types

The X-axis reversed type can have a shorter dimension in the X-axis direction. When the 150-watt RCS2-SS8C (straight) and 150-watt SS8R (reversed) are compared, for example, the SS8R is shorter by 130 mm. Note, however, that the reversed type does not support configurations based on combination directions [3] and [4].



3. Differences between Single-slider and Double-slider Types

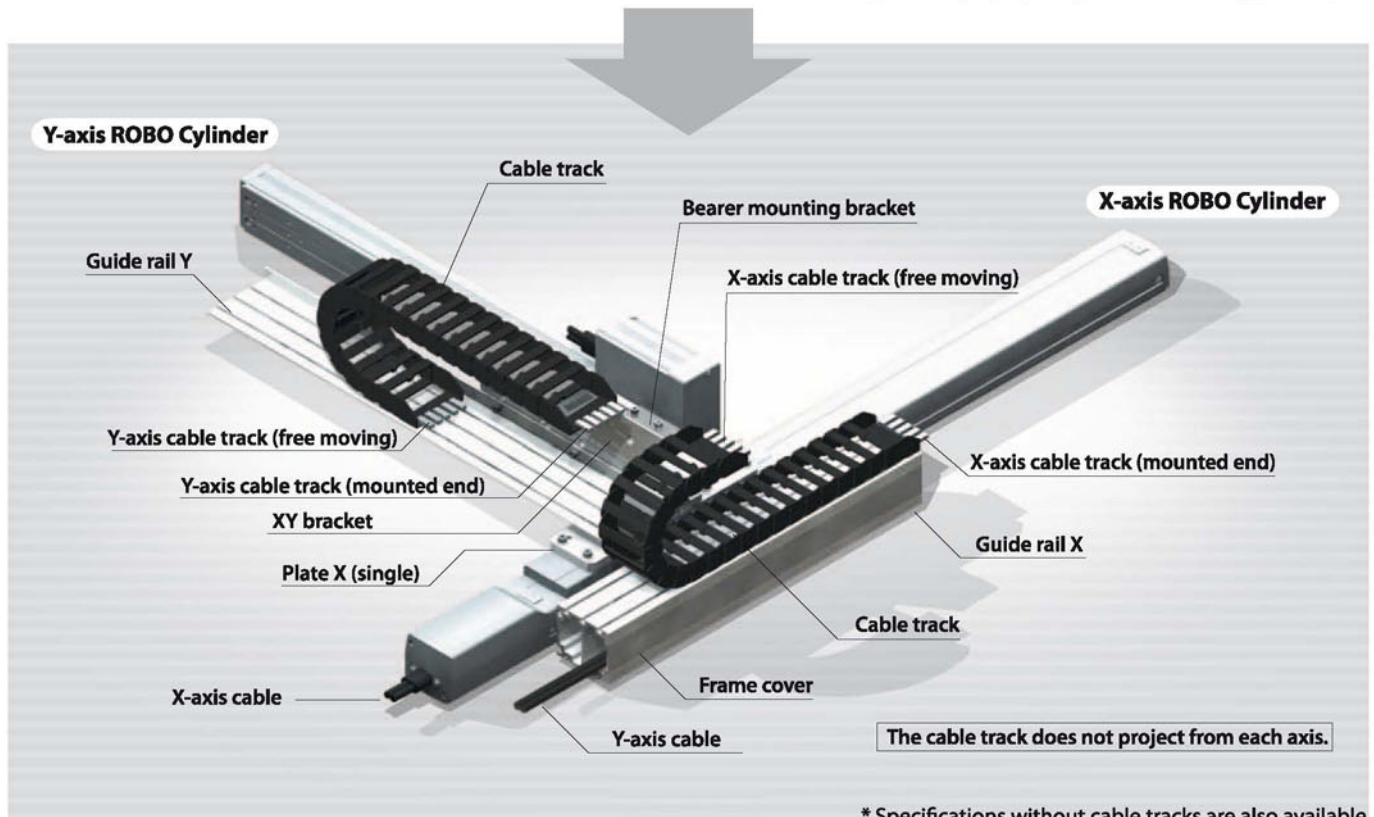
A double-slider consists of two sliders connected to each other and has a greater permissible load moment compared to a single-slider type. Accordingly, double-slider units are used as the X-axis in XY configurations with a long overhang. Note, however, that because the double-slider structure naturally has a longer slider section, a double-slider unit has a shorter stroke than a single-slider unit of the same total length.



The IA kit is a set of the following components needed to assemble a cartesian robot robot.



Note: The above images are provided for reference purposes only.
The actual components may vary depending on the combination type, direction, etc.



* Specifications without cable tracks are also available.