U.S. PATENTED

Crossed Roller Way Unit

CRWU

IKO Crossed Roller Way Unit is a linear motion rolling guide unit for limited stroke linear motion, incorporating IKO Crossed Roller Way CRW in a table and bed of high rigidity which are finished by grinding. Elastic deformation under load is small in all directions and very smooth linear motion with high rigidity is obtained.
Wide variations in size are available for selections suitable for each application.

High accuracy

A one-piece center way is mounted on a bed of simple configuration which avoids any potential errors from machining and assembled with side ways mounted on a table, achieving linear motion of stable high accuracy.

High rigidity

Integrated design is applied to component parts as well as the table and bed to provide maximum rigidity. The assembled unit consequently demonstrates low elastic deformation against loads in any direction and performs with very high rigidity.

Smooth operation

A one-piece center way which avoids any potential processing and mounting errors is combined with super precise cylindrical rollers. So very smooth linear motion free from stick-slip can be obtained.

A variety of available models and sizes

Crossed Roller Way Unit is available in three types. In addition, many different sizes in each type are provided to meet diverse dimensional requirements of machines and equipment.

Easy mounting

Mounting surfaces of the table and bed are precisely finished by grinding. Female threads in the table and counterbored mounting holes in the bed are prepared for easy assembling.
Crossed Roller Way Unit is delivered from the factory with a finely adjusted preload in order to maintain high operating accuracy, rigidity and long life.
Therefore, by assembling Crossed Roller Way Unit into machines or equipment, a precise and durable linear motion mechanism can be easily obtained.

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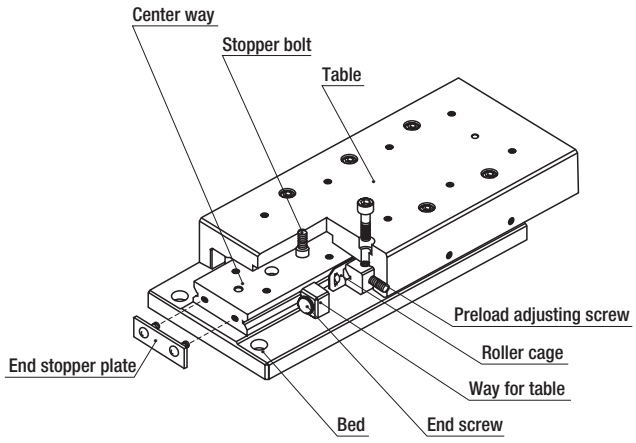
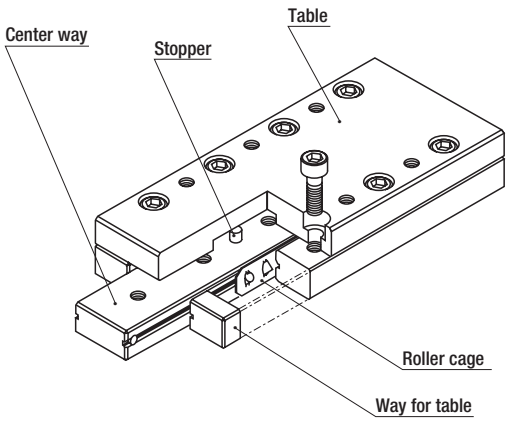


CRWU



CRWU···RS

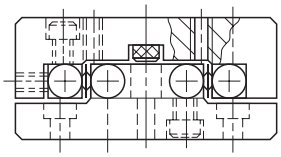
Structure of Crossed Roller Way Unit

Crossed Roller Way Unit series

Shape

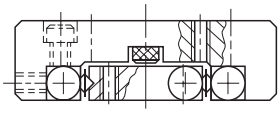
Model code

Crossed Roller Way Unit



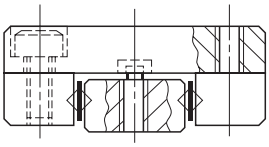
This type is a general purpose linear motion rolling guide unit. The table and bed are assembled with high accuracy and can be readily mounted onto machines or equipment with bolts.

CRWU



This type is a linear motion rolling guide unit featuring a low sectional height that is accomplished by simply removing the bed from the CRWU. Stable accuracy and high rigidity in linear motion can be achieved against loads in any direction.

CRWU···R



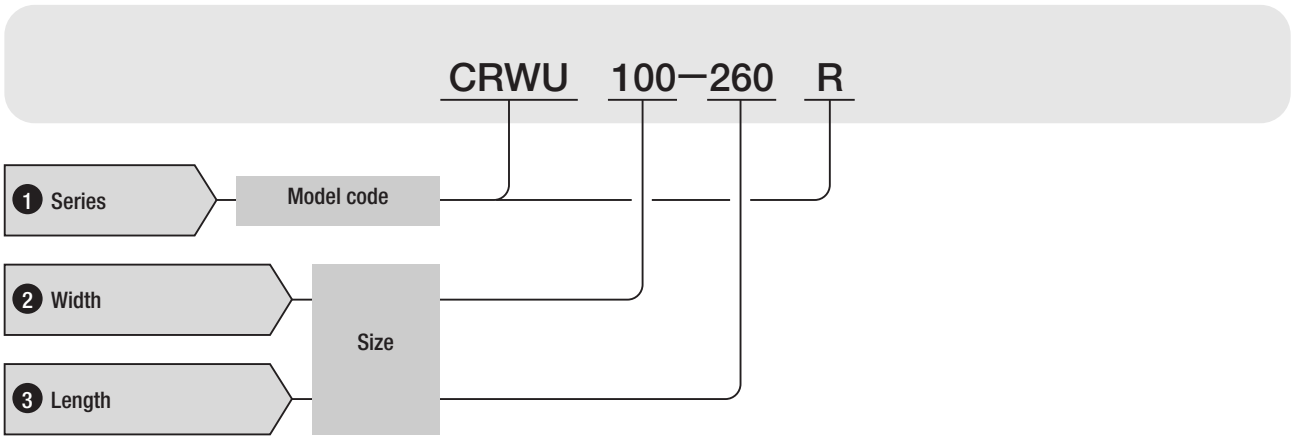
This type is a compact linear motion rolling guide unit featuring a simple lightweight structure, ideal for applications in which the center way is stroked and high accuracy with low inertia is required.

CRWU···RS

1N=0.102kgf=0.2248lbs.
1mm=0.03937inch

Identification number and specification

The specification of Crossed Roller Way Unit is indicated by the identification number, consisting of a model code and a size. An example is shown below.



1 Series	CRWU CRWU···R CRWU···RS
2 Width	Indicate the width of table in mm.
3 Length	Indicate the length of table in mm.

Load Rating and Allowable Load

Summarized descriptions of load ratings of Crossed Roller Way Unit are given below. For details of load rating definitions and load calculations, see "General description".
The load ratings for upward and lateral loads of Crossed Roller Way Unit are the same as those for downward load.

Basic dynamic load rating *C*

The basic dynamic load rating is defined as the constant load both in direction and magnitude under which a group of identical Crossed Roller Way Units are individually operated and 90% of the units in the group can travel 100 x 10^3 meters free from material damage due to rolling contact fatigue.

Basic static load rating C_0

The basic static load rating is defined as the static load that gives a prescribed constant contact stress at the center of the contact area between the rolling element and raceway receiving the maximum load.

Allowable load *F*

The allowable load is a load under which the sum of elastic deformations of the rolling element and the raceway in the contact area subjected to the maximum contact stress is small enough to guarantee accuracy and smooth rolling movement.
Therefore, when very smooth and highly accurate linear motion is required, make sure that the applied load on Crossed Roller Way Unit is well within the allowable load value.

Static moment rating T_0

The static moment rating is defined as the static moment load that gives a prescribed constant contact stress at the center of the contact area between the rolling element and raceway receiving the maximum load when a moment is loaded.

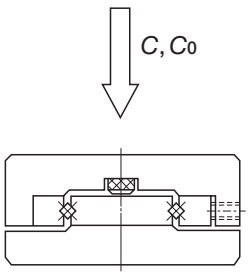


Fig. 1 Direction of load rating

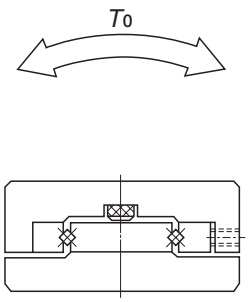
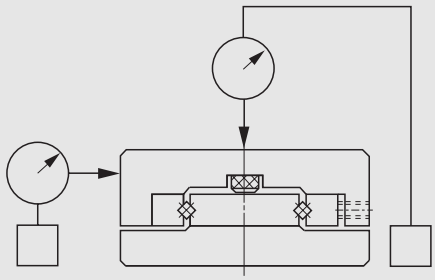


Fig. 2 Direction of static moment rating

Accuracy

The accuracy of Crossed Roller Way Unit is shown in Table 1.
Parallelism at table center shows the difference between the maximum and the minimum of table height when the table is stroked.
Parallelism at table side shows the difference between the maximum and the minimum of measured values at the table side (opposite to adjusting side) when the table is stroked.
The standard height tolerance of the unit is ±0.1 mm. If several units are used on the same mounting surface and the height of those units require a limited height variation, units with a height variation of less than 0.01 mm among the several units to be used on the same mounting surface can be supplied on request.
If a special accuracy other than those shown in Table 1 is required, consult IKO.

Table 1 Accuracy of Crossed Roller Way Unit



unit : μm

Unit length *L* mm		Parallelism at table center	Parallelism at table side
over	incl.		
—	50	2	4
50	100	2	5
100	160	3	6
160	310	3	7
310	510	4	8
510	710	4	9
710	—	5	10

Precautions for Mounting and Use

❶ Specification

Check whether the specifications of selected Crossed Roller Way Unit meet the requirements for the application of the machine or equipment.

❷ Handling

Crossed Roller Way Unit is a precision product, so handle it with care.
In Crossed Roller Way Unit, the cage can be shifted from the normal position under an uneven load or irregular and high-speed motion. To correct the cage position, move the table in its full stroke after a certain operating time or reciprocating cycles.
Crossed Roller Way Unit does not contain synthetic resin parts and can be operated at high temperatures. But when the temperature exceeds 100 ˚C, consult IKO.

❸ Mounting

(1) Tightening torque of mounting screws

Tightening torque of mounting screws is shown in Table 2. If vibration or shock is large, or if a moment load is applied, it is recommended to further tighten the screws to 1.3 times the listed values.

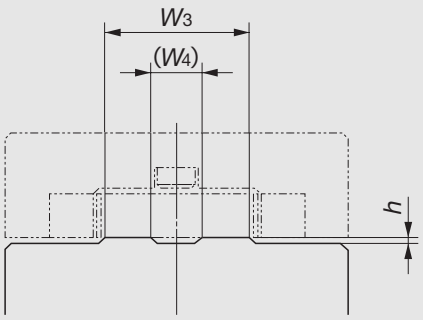
(2) Mounting dimensions of CRWU···R

In order to avoid interference of the table with the mating mounting surface, carefully check H_1 and H dimensions shown in the dimension tables and design the height of the mating mounting surface accordingly. Example of the mating mounting surface of the bed is shown in Table 3.

Table 2 Tightening torque of screws

Screw size	Tightening torque N·m
M2 ×0.4	0.23
M2.5×0.45	0.46
M3 ×0.5	1.4
M4 ×0.7	3.2
M5 ×0.8	6.3
M6 ×1	10.7
M8 ×1.25	25.6

Table 3 Example of mating mounting surface for CRWU···R



unit : mm

Model number	h(minimum)	W_3	W_4
CRWU 30 ··· R	0.5	13	—
CRWU 40-35R **CRWU 40 ··· R**	0.5	18 13	—
CRWU 60 ··· R	0.5	26.5	—
CRWU 80 ··· R	0.5	38	16
CRWU 100 ··· R	0.5	42	14
CRWU 145 ··· R	1.0	68.5	28.5

❹ Dowel pin hole

In the center way of the CRWU···R, dowel pin holes are prepared. When drilling a dowel pin hole in the bed, drill the hole in the bed through the dowel pin hole in the center way after assembling the center way on the bed. The diameters and tolerances of the center way hole are shown in the dimension tables.

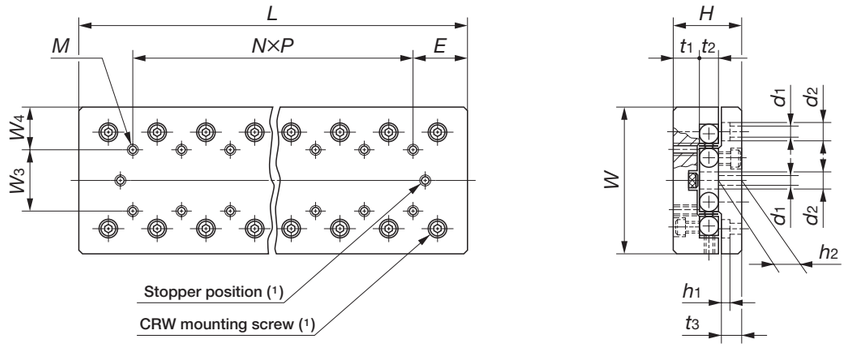
❺ Readjustment of preload

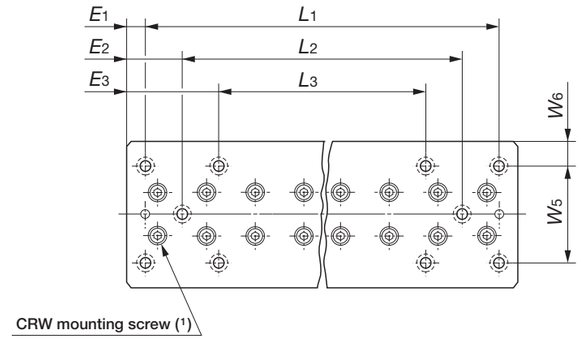
Preloads of Crossed Roller Way Unit are adjusted to zero clearance or minimal preload at the factory. Crossed Roller Way Unit does not usually require any further adjustment. If preload readjustment of the CRWU or CRWU···R is needed, adjust it according to "Preload adjustment" of the Crossed Roller Way shown on page E-23.

❻ Operating speed

The operating speed of Crossed Roller Way Unit should not exceed 30 m/min.

CRWU





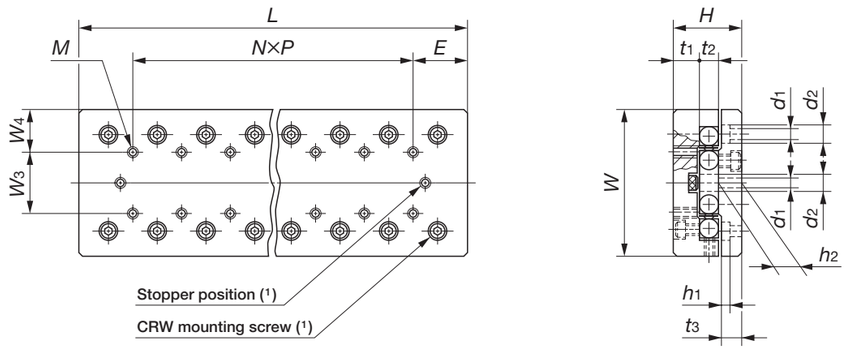
Model number	Mass (Ref.)	Boundary dimensions and tolerances mm									Table			
		W	Tolerance	H	Tolerance	L	t1	t2	t3	Maximum stroke length	W3	W4	N×P	E
	kg													
CRWU 30- 25	0.09	30	±0.1	17	±0.1	25	7	4	5.5	12	10	10	—	12.5
CRWU 30- 35	0.13					35				18			1×10	
CRWU 30- 45	0.17					45				25			2×10	
CRWU 30- 55	0.20					55				32			3×10	
CRWU 30- 65	0.24					65				40			4×10	
CRWU 30- 75	0.28					75				45			5×10	
CRWU 30- 85	0.32					85				50			6×10	
CRWU 40- 35	0.21	40	±0.1	21	±0.1	35	8	6	6.5	18	15	12.5	—	17.5
CRWU 40- 50	0.30					50	7	8	5.5	30			1×15	
CRWU 40- 65	0.37					65				40			2×15	
CRWU 40- 80	0.48					80				50			3×15	
CRWU 40- 95	0.54					95				60			4×15	
CRWU 40-110	0.65					110				70			5×15	
CRWU 40-125	0.72					125				80			6×15	
CRWU 60- 55	0.68	60	±0.1	28	±0.1	55	10.5	8	9	30	25	17.5	—	27.5
CRWU 60- 80	1.0					80				45			1×25	
CRWU 60-105	1.3					105				60			2×25	
CRWU 60-130	1.6					130				75			3×25	
CRWU 60-155	1.9					155				90			4×25	
CRWU 60-180	2.2					180				105			5×25	
CRWU 60-205	2.5					205				130			6×25	

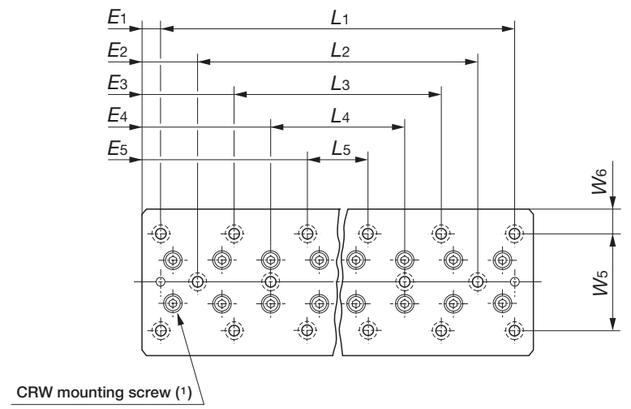
Mounting dimensions mm												Basic dynamic load rating	Basic static load rating	Allowable load	Static moment rating
Bed												C	C0	F	T0
M	W5	W6	L1	E1	L2	E2	L3	E3	d1	d2	h1	h2	N	N	N	N·m
M2	22	4	18	3.5	—	—	—	—	2.55	4.1	2.5	6	380	478	159	3.2
			28										525	717	239	4.8
			38				28	13.5					659	956	319	6.5
			48										786	1 200	398	8.1
			58										906	1 430	478	9.7
			68				38	13.5					1 020	1 670	558	11.3
			78				45	13.5					1 140	1 910	638	12.9
M3	30	5	25	5	—	—	58	13.5	3.5	6	3.5	7	896	1 180	392	10.6
			40								3.2	6	2 710	3 660	1 220	26.5
			55				—	—					2 710	3 660	1 220	26.5
			70				40	20					4 050	6 090	2 030	44.2
			85				55	20					3 400	4 880	1 630	35.3
			100				70	20					4 680	7 310	2 440	53.0
			115				85	20					4 680	7 310	2 440	53.0
M4	40	10	35	10	—	—	—	—	4.5	7.5	4.5	9.5	2 710	3 660	1 220	51.2
			60										4 050	6 090	2 030	85.3
			85										5 270	8 530	2 840	119
			110										5 860	9 750	3 250	137
			135		85	35							6 970	12 200	4 060	171
			160		110	35							8 040	14 600	4 880	205
			185		135	35	85	60					8 550	15 800	5 280	222

Note(1) : This is the mounting position for the stopper or CRW mounting screw.
For details, see page E-74.

1N=0.102kgf=0.2248lbs.
1mm=0.03937inch

CRWU





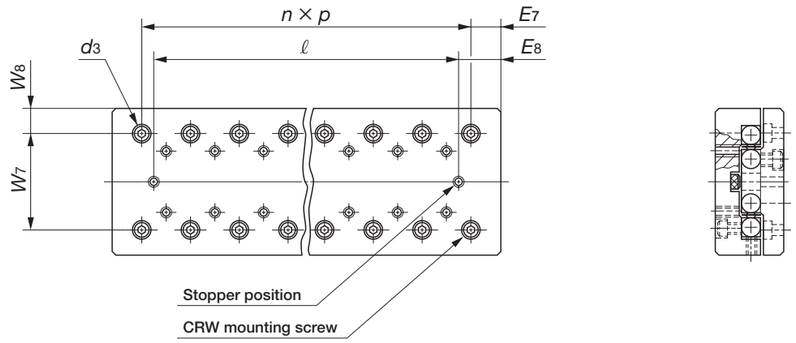
Model number	Mass (Ref.)	Boundary dimensions and tolerances mm									Table					
		W	Tolerance	H	Tolerance	L	t1	t2	t3	Maximum stroke length	W3	W4	N×P	E	M	W5
	kg															
CRWU 80- 85	1.8	80	±0.1	35	±0.1	85	13	11	10.5	50	40	20	–	42.5	M5	60
CRWU 80-125	2.6					125				75			1×40			
CRWU 80-165	3.4					165				105			2×40			
CRWU 80-205	4.2					205				135			3×40			
CRWU 80-245	5.1					245				155			4×40			
CRWU 80-285	5.9					285				185			5×40			
CRWU 80-325	6.7					325				215			6×40			
CRWU 100-110	3.6	100	±0.15	45	±0.1	110	16	15	13	60	50	25	–	55	M6	60
CRWU 100-160	5.2					160				95			1×50			
CRWU 100-210	6.9					210				130			2×50			
CRWU 100-260	8.5					260				165			3×50			
CRWU 100-310	10.2					310				200			4×50			
CRWU 100-360	11.8					360				235			5×50			
CRWU 100-410	13.5					410				265			6×50			
CRWU 145-210	13.2	145	±0.2	60	±0.1	210	21	22	16	130	85	30	–	105	M8	90
CRWU 145-310	19.6					310				180			1×100			
CRWU 145-410	25.9					410				350			2×100			
CRWU 145-510	32.2					510				450			3×100			
CRWU 145-610	38.6					610				550			4×100			
CRWU 145-710	45.0					710				650			5×100			
CRWU 145-810	51.3					810				750			6×100			

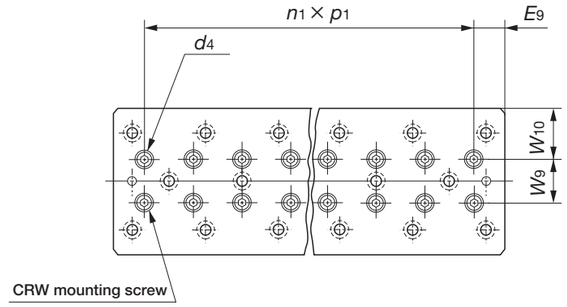
Mounting dimensions mm															Basic dynamic load rating	Basic static load rating	Allowable load	Static moment rating
Bed															C	C0	F	T0
W6	L1	E1	L2	E2	L3	E3	L4	E4	L5	E5	d1	d2	h1	h2	N	N	N	N·m
10	40	22.5	–	–	–	–	–	–	–	–	5.5	9.5	6	11	6 640	9 400	3 130	188
	80				–	–									9 130	14 100	4 700	282
	120														10 300	16 500	5 480	329
	160				80	62.5									12 500	21 200	7 050	423
	200				120	62.5									14 700	25 900	8 620	517
	240				160	62.5									16 700	30 600	10 200	611
	280				200	62.5			120	102.5					18 700	35 300	11 800	705
20	90	10	–	–	–	–	–	–	–	–	7	11	6.5	14	13 900	18 500	6 150	415
	140														16 600	23 100	7 690	519
	190		90	60											21 600	32 300	10 800	727
	240		140	60											26 300	41 500	13 800	934
	290		190	60											30 800	50 700	16 900	1 140
	340		240	60	140	110									35 100	60 000	20 000	1 350
	390		290	60	190	110									37 200	64 600	21 500	1 450
27.5	100	55	–	–	–	–	–	–	–	–	9	14	8.5	17.5	39 400	52 800	17 600	1 900
	200				–	–									61 200	92 300	30 800	3 320
	300		100	155			–	–							67 900	106 000	35 200	3 800
	400		200	155					–	–					74 400	119 000	39 600	4 270
	500		300	155	100	255									87 100	145 000	48 400	5 220
	600		400	155	200	255									99 200	172 000	57 200	6 170
	700		500	155	300	255	100	355							111 000	198 000	66 000	7 120

Note(1) : This is the mounting position for the stopper or CRW mounting screw.
For details, see page E-75.

1N=0.102kgf=0.2248lbs.
1mm=0.03937inch

Mounting dimensions of stopper and CRW
CRWU





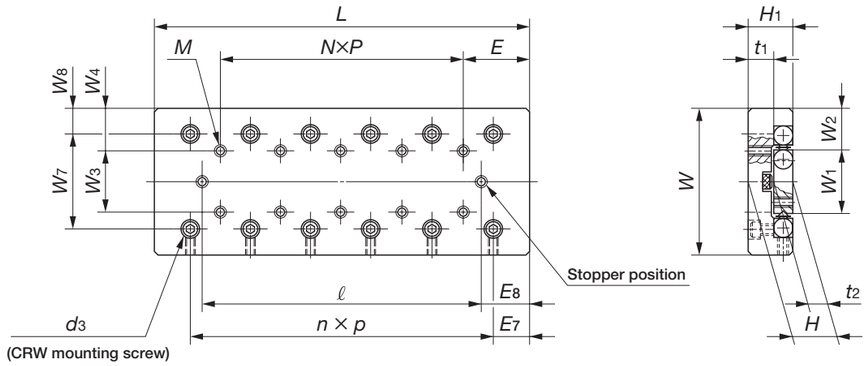
Model number	Dimensions of table mm							Dimensions of bed mm				
	W_7	W_8	$n \times p$	E_7	d_3	ℓ	E_8	W_9	W_{10}	$n_1 \times p_1$	E_9	d_4
CRWU 30- 25			1×10			20	2.5			1×10		
CRWU 30- 35			2×10			26	4.5			2×10		
CRWU 30- 45			3×10			33	6			3×10		
CRWU 30- 55	18.4	5.8	4×10	7.5	4.1	40	7.5	—	15	4×10	7.5	4.1
CRWU 30- 65			5×10			48	8.5			5×10		
CRWU 30- 75			6×10			53	11			6×10		
CRWU 30- 85			7×10			58	13.5			7×10		
CRWU 40- 35	25	7.5	1×15	10	6	29	3			1×15	10	
CRWU 40- 50			1×25	12.5		41	4.5			2×15	10	
CRWU 40- 65			1×25	20		51	7			2×15	17.5	
CRWU 40- 80	25.5	7.25	2×25	15	6.5	61	9.5	—	20	4×15	10	6
CRWU 40- 95			2×25	22.5		71	12			4×15	17.5	
CRWU 40-110			3×25	17.5		81	14.5			5×15	17.5	
CRWU 40-125			3×25	25		91	17			5×15	25	
CRWU 60- 55			1×25			44	5.5			1×25		
CRWU 60- 80			2×25			59	10.5			2×25		
CRWU 60-105			3×25			74	15.5			3×25		
CRWU 60-130	39	10.5	4×25	15	7.5	89	20.5	17	21.5	4×25	15	7.5
CRWU 60-155			5×25			104	25.5			5×25		
CRWU 60-180			6×25			119	30.5			6×25		
CRWU 60-205			7×25			144	30.5			7×25		

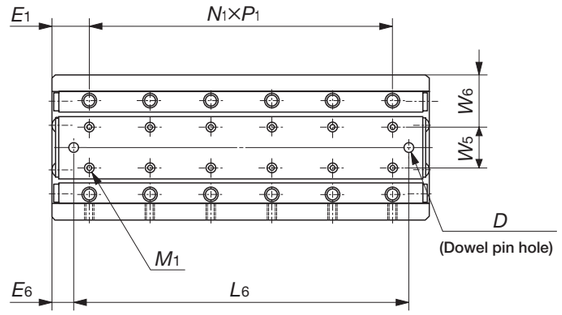
Model number	Dimensions of table mm							Dimensions of bed mm				
	W_7	W_8	$n \times p$	E_7	d_3	ℓ	E_8	W_9	W_{10}	$n_1 \times p_1$	E_9	d_4
CRWU 80- 85			1×40			64	10.5			1×40		
CRWU 80-125			2×40			89	18			2×40		
CRWU 80-165			3×40			119	23			3×40		
CRWU 80- 205	53	13.5	4×40	22.5	9.5	149	28	27	26.5	4×40	22.5	9.5
CRWU 80- 245			5×40			169	38			5×40		
CRWU 80-285			6×40			199	43			6×40		
CRWU 80-325			7×40			229	48			7×40		
CRWU 100-110			1×50			77	16.5			1×50		
CRWU 100-160			2×50			113	23.5			2×50		
CRWU 100-210			3×50			148	31			3×50		
CRWU 100-260	64	18	4×50	30	11	183	38.5	26	37	4×50	30	11
CRWU 100-310			5×50			218	46			5×50		
CRWU 100-360			6×50			253	53.5			6×50		
CRWU 100-410			7×50			283	63.5			7×50		
CRWU 145-210			1×100			156	27			1×100		
CRWU 145-310			2×100			206	52			2×100		
CRWU 145-410			3×100			376	17			3×100		
CRWU 145-510	98	23.5	4×100	55	14	476	17	46	49.5	4×100	55	14
CRWU 145-610			5×100			576	17			5×100		
CRWU 145-710			6×100			676	17			6×100		
CRWU 145-810			7×100			776	17			7×100		

1N=0.102kgf=0.2248lbs.
1mm=0.03937inch

IKO Crossed Roller Way Unit

CRWU···R



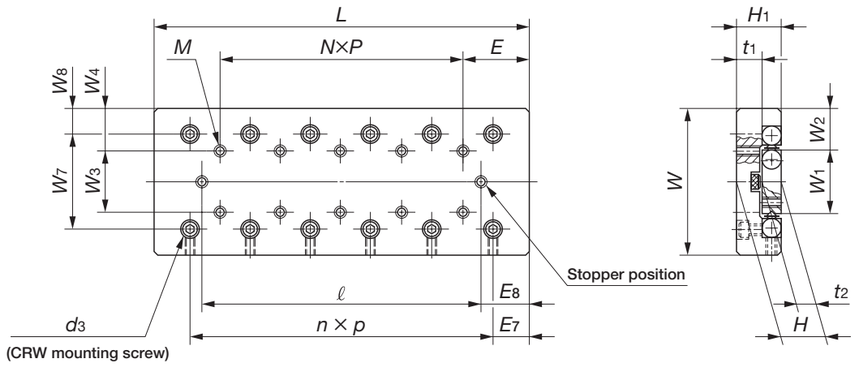


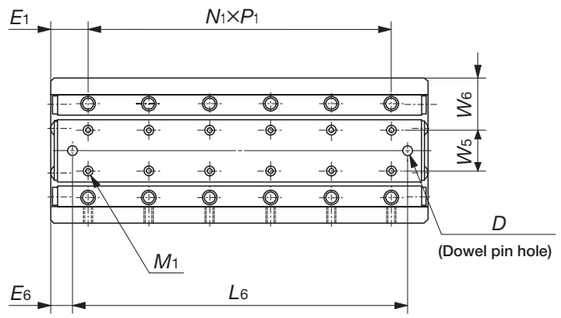
Model number	Mass (Ref.)	Boundary dimensions and tolerances mm						Dimensions of table mm									
								Mounting dimensions									
	kg	W	Tolerance	H	Tolerance	L	Maximum stroke length	W3	W4	N×P	E	M	W7	W8	n×p	E7	d3	ℓ
CRWU 30- 25R	0.06	30	±0.1	11	±0.1	25	12	10	10	–	12.5	M2	18.4	5.8	1×10	7.5	4.1	20
CRWU 30- 35R	0.08					35	18			1×10					2×10			26
CRWU 30- 45R	0.11					45	25			2×10					3×10			33
CRWU 30- 55R	0.13					55	32			3×10					4×10			40
CRWU 30- 65R	0.16					65	40			4×10					5×10			48
CRWU 30- 75R	0.18					75	45			5×10					6×10			53
CRWU 30- 85R	0.21					85	50			6×10					7×10			58
CRWU 40- 35R	0.13	40	±0.1	14	±0.1	35	18	15	12.5	–	17.5	M3	25	7.5	1×15	10	6	29
CRWU 40- 50R	0.21			15		50	30			1×15			25.5	7.25	1×25	12.5		41
CRWU 40- 65R	0.26					65	40			2×15					1×25	20		51
CRWU 40- 80R	0.34					80	50			3×15					2×25	15	6.5	61
CRWU 40- 95R	0.38					95	60			4×15					2×25	22.5		71
CRWU 40-110R	0.46					110	70			5×15					3×25	17.5		81
CRWU 40-125R	0.50					125	80			6×15					3×25	25		91
CRWU 60- 55R	0.44	60	±0.1	18.5	±0.1	55	30	25	17.5	–	27.5	M4	39	10.5	1×25	15	7.5	44
CRWU 60- 80R	0.66					80	45			1×25					2×25			59
CRWU 60-105R	0.85					105	60			2×25					3×25			74
CRWU 60-130R	1.1					130	75			3×25					4×25			89
CRWU 60-155R	1.3					155	90			4×25					5×25			104
CRWU 60-180R	1.5					180	105			5×25					6×25			119
CRWU 60-205R	1.7					205	130			6×25					7×25			144

Model number	Dimensions and tolerance of center way mm															Basic dynamic load rating	Basic static load rating	Allowable load	Static moment rating
	Mounting dimensions															C	C0	F	T0
	E8	H1	t1	W5	W6	N1×P1	E1	M1	D	Tolerance	L6	E6	W1	W2	t2	N	N	N	N·m
CRWU 30- 25R	2.5	11	7	–	15	1×10	7.5	M2	–	–	–	–	12.8	8.6	4	380	478	159	3.2
CRWU 30- 35R	4.5					2×10			–	–	–	–				525	717	239	4.8
CRWU 30- 45R	6					3×10			–	–	–	–				659	956	319	6.5
CRWU 30- 55R	7.5					4×10			2	+0.020 0	30	12.5				786	1 200	398	8.1
CRWU 30- 65R	8.5					5×10			2		40	12.5				906	1 430	478	9.7
CRWU 30- 75R	11					6×10			2		50	12.5				1 020	1 670	558	11.3
CRWU 30- 85R	13.5					7×10			2		60	12.5				1 140	1 910	638	12.9
CRWU 40- 35R	3	14	8	–	20	1×15	10	M3	–	–	–	–	17	11.5	6	896	1 180	392	10.6
CRWU 40- 50R	4.5	15	7			2×15			–	–	–	–	13.1	13.45	8	2 710	3 660	1 220	26.5
CRWU 40- 65R	7					2×15	17.5		–	–	–	–				2 710	3 660	1 220	26.5
CRWU 40- 80R	9.5					4×15	10		3	+0.020 0	45	17.5				4 050	6 090	2 030	44.2
CRWU 40- 95R	12					4×15	17.5		3		45	25				3 400	4 880	1 630	35.3
CRWU 40-110R	14.5					5×15	17.5		3		60	25				4 680	7 310	2 440	53.0
CRWU 40-125R	17					5×15	25		3		60	32.5				4 680	7 310	2 440	53.0
CRWU 60- 55R	5.5	18.5	10.5	17	21.5	1×25	15	M4	4	+0.020 0	35	10	26.6	16.7	8	2 710	3 660	1 220	51.2
CRWU 60- 80R	10.5					2×25					60					4 050	6 090	2 030	85.3
CRWU 60-105R	15.5					3×25					85					5 270	8 530	2 840	119
CRWU 60-130R	20.5					4×25					110					5 860	9 750	3 250	137
CRWU 60-155R	25.5					5×25					135					6 970	12 200	4 060	171
CRWU 60-180R	30.5					6×25					160					8 040	14 600	4 880	205
CRWU 60-205R	30.5					7×25					185					8 550	15 800	5 280	222

1N=0.102kgf=0.2248lbs.
1mm=0.03937inch

CRWU···R





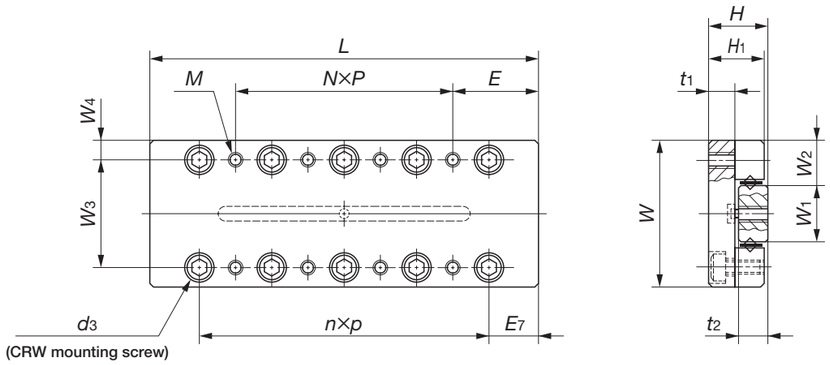
Model number	Mass (Ref.)	Boundary dimensions and tolerances mm						Dimensions of table mm									
								Mounting dimensions									
	kg	W	Tolerance	H	Tolerance	L	Maximum stroke length	W3	W4	N×P	E	M	W7	W8	n×p	E7	d3	ℓ
CRWU 80- 85R	1.2	80	±0.1	24	±0.1	85	50	40	20	–	42.5	M5	53	13.5	1×40	22.5	9.5	64
CRWU 80-125R	1.8					125	75			1×40					2×40			89
CRWU 80-165R	2.3					165	105			2×40					3×40			119
CRWU 80-205R	2.9					205	135			3×40					4×40			149
CRWU 80-245R	3.5					245	155			4×40					5×40			169
CRWU 80-285R	4.0					285	185			5×40					6×40			199
CRWU 80-325R	4.6					325	215			6×40					7×40			229
CRWU 100-110R	2.4	100	±0.15	31	±0.1	110	60	50	25	–	55	M6	64	18	1×50	30	11	77
CRWU 100-160R	3.6					160	95			1×50					2×50			113
CRWU 100-210R	4.7					210	130			2×50					3×50			148
CRWU 100-260R	5.9					260	165			3×50					4×50			183
CRWU 100-310R	7.0					310	200			4×50					5×50			218
CRWU 100-360R	8.1					360	235			5×50					6×50			253
CRWU 100-410R	9.3					410	265			6×50					7×50			283
CRWU 145-210R	9.4	145	±0.2	42.5	±0.1	210	130	85	30	–	105	M8	98	23.5	1×100	55	14	156
CRWU 145-310R	13.9					310	180			1×100					2×100			206
CRWU 145-410R	18.4					410	350			2×100					3×100			376
CRWU 145-510R	23.0					510	450			3×100					4×100			476
CRWU 145-610R	27.5					610	550			4×100					5×100			576
CRWU 145-710R	32.0					710	650			5×100					6×100			676
CRWU 145-810R	36.6					810	750			6×100					7×100			776

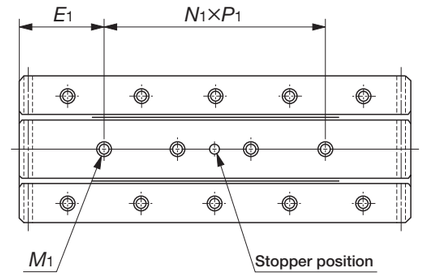
			Dimensions and tolerance of center way mm												Basic dynamic load rating	Basic static load rating	Allowable load	Static moment rating
					Mounting dimensions													
E8	H1	t1	W5	W6	N1×P1	E1	M1	D	Tolerance	L6	E6	W1	W2	t2	C	C0	F	T0
															N	N	N	N·m
10.5	24	13	27	26.5	1×40	22.5	M5	5	+0.020 0	55	15	38	21	11	6 640	9 400	3 130	188
18					2×40					95					9 130	14 100	4 700	282
23					3×40					135					10 300	16 500	5 480	329
28					4×40					175					12 500	21 200	7 050	423
38					5×40					215					14 700	25 900	8 620	517
43					6×40					255					16 700	30 600	10 200	611
48					7×40					295					18 700	35 300	11 800	705
16.5	31	16	26	37	1×50	30	M6	5	+0.020 0	70	20	42	29	15	13 900	18 500	6 150	415
23.5					2×50					120					16 600	23 100	7 690	519
31					3×50					170					21 600	32 300	10 800	727
38.5					4×50					220					26 300	41 500	13 800	934
46					5×50					270					30 800	50 700	16 900	1 140
53.5					6×50					320					35 100	60 000	20 000	1 350
63.5					7×50					370					37 200	64 600	21 500	1 450
27	43	21	46	49.5	1×100	55	M8	5	+0.020 0	150	30	68.4	38.3	21	39 400	52 800	17 600	1 900
52					2×100					250					61 200	92 300	30 800	3 320
17					3×100					350					67 900	106 000	35 200	3 800
17					4×100					450					74 400	119 000	39 600	4 270
17					5×100					550					87 100	145 000	48 400	5 220
17					6×100					650					99 200	172 000	57 200	6 170
17					7×100					750					111 000	198 000	66 000	7 120

1N=0.102kgf=0.2248lbs.
1mm=0.03937inch

IKO Crossed Roller Way Unit

CRWU···RS





Model number	Mass (Ref.)	Boundary dimensions and tolerances mm						Dimensions of table mm					
								Mounting dimensions					
	kg	W	Tolerance	H	Tolerance	L	Maximum stroke length	W3	W4	N×P	E	M	n×p
CRWU 20- 25RS	0.03	20	±0.1	8	±0.1	25	12	14	3	1×18	3.5	M2.5	1×10
CRWU 20- 35RS	0.05					35	18			1×28	3.5		2×10
CRWU 20- 45RS	0.06					45	25			1×20	12.5		3×10
CRWU 20- 55RS	0.07					55	32			1×30	12.5		4×10
CRWU 30- 65RS	0.20	30	±0.1	12	±0.1	65	40	22	4	1×30	17.5	M3	3×15
CRWU 30- 80RS	0.24					80	50			1×45			4×15
CRWU 30- 95RS	0.29					95	60			2×30			5×15
CRWU 40-105RS	0.58	40	±0.1	16	±0.1	105	60	30	5	1×50	27.5	M4	3×25
CRWU 40-130RS	0.72					130	75			1×75			4×25
CRWU 40-155RS	0.85					155	90			2×50			5×25

Dimensions of center way mm										Basic dynamic load rating	Basic static load rating	Allowable load	Static moment rating
Mounting dimensions										C	C0	F	T0
E7	d3	H1	t1	W1	W2	N1×P1	E1	M1	t2	N	N	N	N·m
7.5	4.1	7.5	3.5	7	6.5	2×7.5	5	M2.5	4	380	478	159	1.8
						2×10	7.5			525	717	239	2.8
						3×10				659	956	319	3.7
						4×10				786	1 200	398	4.6
10	6	11.5	5.5	12	9	3×15	10	M3	6	1 850	2 940	979	19.1
						4×15				2 130	3 530	1 180	22.9
						5×15				2 410	4 110	1 370	26.7
15	7.5	15.5	7.5	16	12	3×25	15	M4	8	4 680	7 310	2 440	63.6
						4×25				5 860	9 750	3 250	84.8
						5×25				6 970	12 200	4 060	106

1N=0.102kgf=0.2248lbs.
1mm=0.03937inch