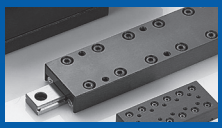
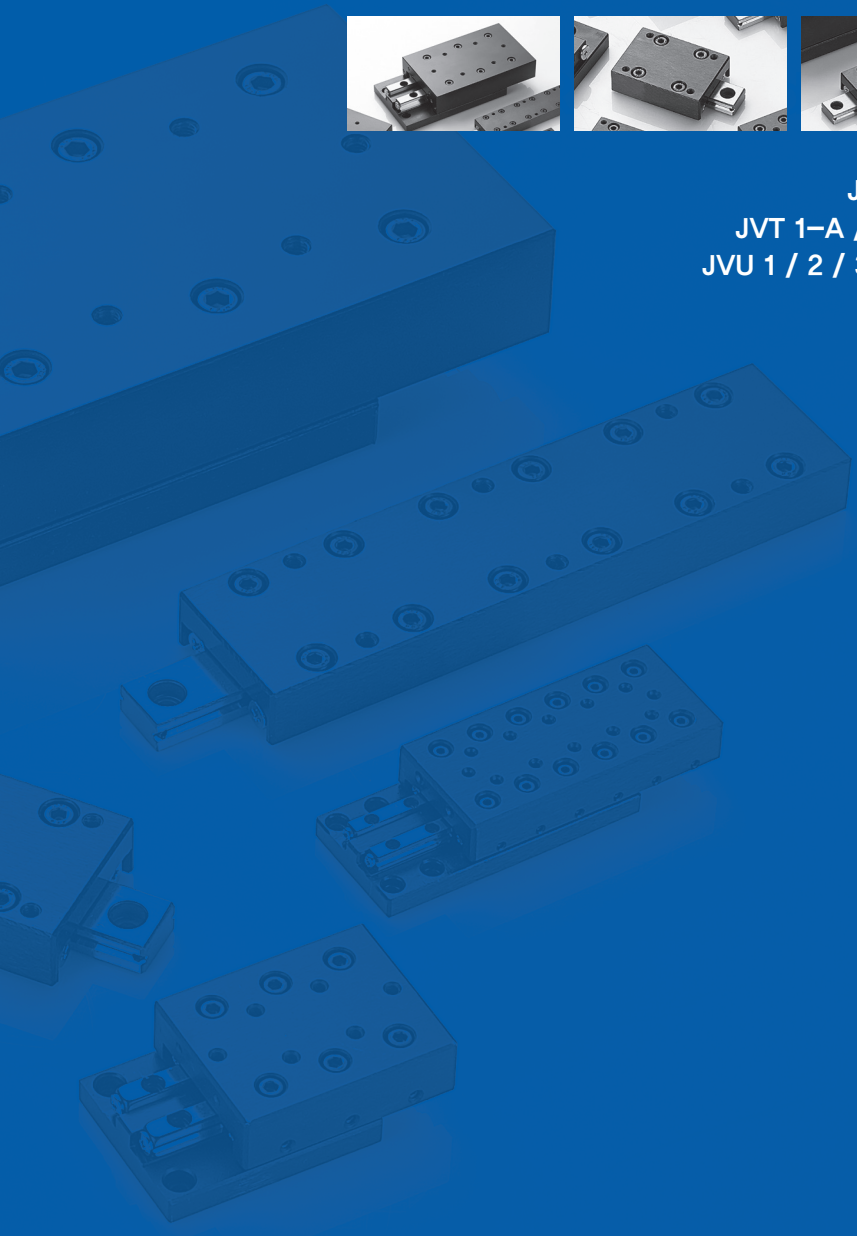
Cross Roller Slide Table

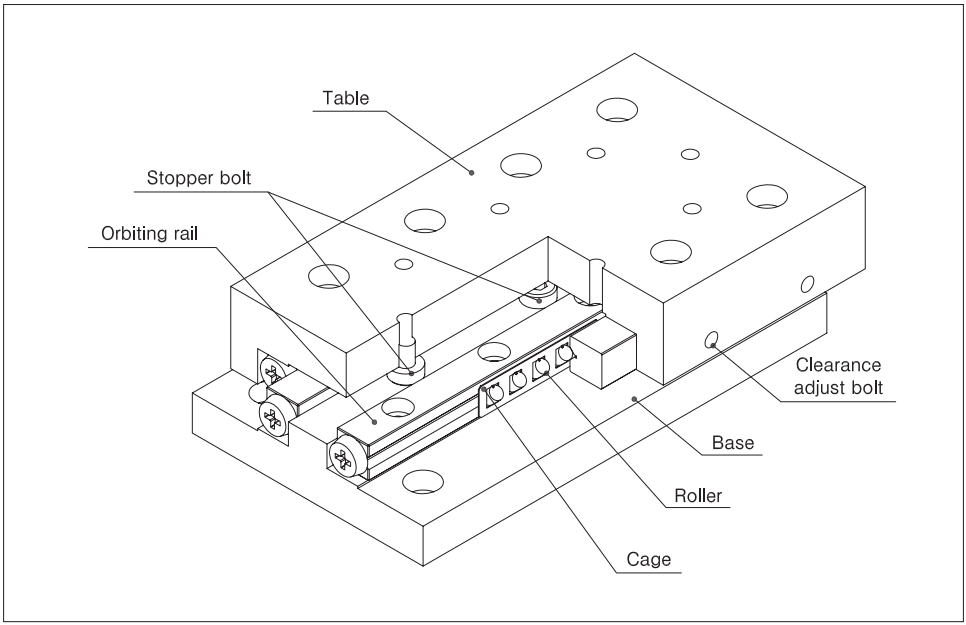


JVT 1 / 2 / 3
JVT 1–A / 2–A / 3–A
JVU 1 / 2 / 3 / 4 / 6 / 9



Cross Roller Slide Table Guide

〈Fig. 1〉 structure of cross roller rotary guide model



■ Structure

Cross roller table is of high-precision, compact and linear guide instrument through assembling BSQ cross roller linear guide JVU type between the table and base manufactured with superior precision. Rigidity and soft linear motion can be acquired since there's no elastic displacement against the load from each direction. There are JVU type and miniature version of JVT type for limited cross roller table. It is widely used for OA instruments and peripherals, precision equipments such as meters, printed circuit board hole manufacturer or slides including universal center lathe, tool grinders, internal grinding machine, small-sized surface grinder, and computerized wire-cut.

■ Features

■ High precision

High precision with stable linear motion can be achieved by mounting uniformly-structured orbiting plane to the base of simple structure with no manufacture errors. For opposite table side, stable linear motion with high precision can be achieved by assembling BSQ cross roller linear guide JVU type.

■ High rigidity

The rigidity of table and base is made to be high by integrating the component parts. Moreover, the elastic displacement is small so that high rigidity is obtained for the load from each direction.

■ Wide range of permissible load

A roller with heavy load rating is assembled with fine pitch. Hence it resists heavy load and has such longevity by consisting of linear guide machine with high rigidity.

■ Simple installation

As the cross roller guide is assembled between the table and the base that have been processed with high precision level, the linear guide of high precision can be obtained.

■ Outstanding resistance to corrosion

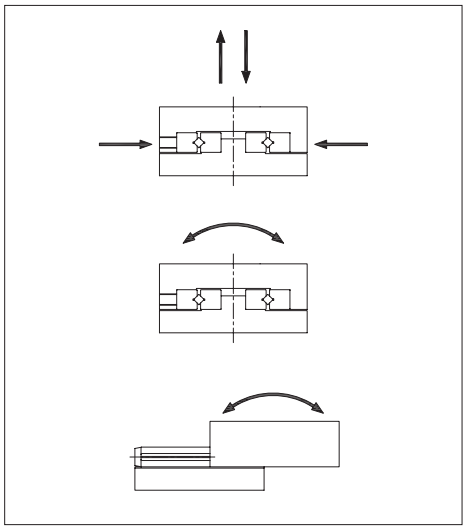
- Stainless + light-type aluminum (JVWS, JVTS, JVTS-A type)

The table of JVWS type and JVTS-A type adopts aluminum material. Further, the rail and roller gauge adopts stainless, making it possible that product is light and highly resistant to corrosion.

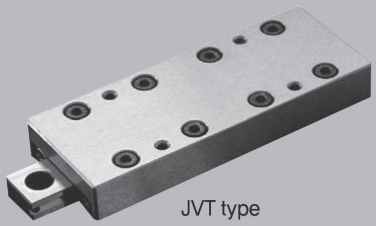
■ Various kinds of using methods

Since those rollers are arranged orthogonally by turns, loads from every direction applied to the table are uniformly carried.

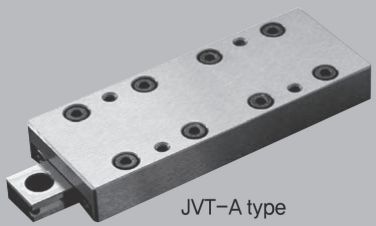
〈Fig. 2〉 Load direction



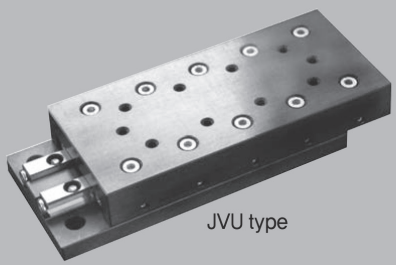
■ Features



JVT type



JVT-A type

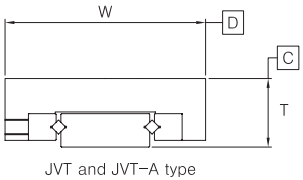


JVU type

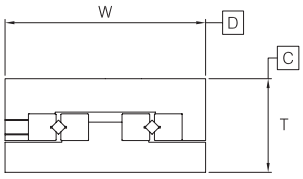
■ Accuracy standards

The height of cross roller table(T). Permissible width(W) and the level of distance of C and D sides to the fixing plane of the base are written in the dimension table.

〈Fig. 3〉 Standard size



JVT and JVT-A type



JVU type

■ Basic static load rating C_0

If excessive load or impact is given to JVT and JVU type when it is stalled or in motion, there occurs permanent transformation between rolling surface and roller. Basic static load rating(C0) is the load when the sum of permanent transformation volume of the rolling surface and roller is 0.0001 times more the diameter of the latter. (Refer to Load rating of each direction) If the sum of permanent transformation volume breaks 0.0001 times of the roller's diameter, its motion will be adversely affected. Static safety factor(fs) to the load should be considered in order to prevent it. (Refer to Static safety factor)

■ Basic dynamic load rating C

■ High precision

When each of JVT and JTU types in the first groups in motion, the load that does not transform its size at the direction where 90% of the first group's rated life span reaches L=100km is called basic dynamic load rating(C), which can be used for calculate life span. (Refer to Rated Life span)

■ Load ratings in each direction

Load rating of JVT and JVU type is equal from all four direction including radial, reverse radial, and horizontal side. The value is written in (C) and (C0) in the dimension table.

■ Static safety factor Fs

Sudden external force can be created when direct-acting system stops or is in motion due to vibration, impact or maneuvered stall. That's why the static safety factor to the applied load needs to be taken into account.

$$f_s = (\frac{C_0}{P_C}) \ or \ f_s = (\frac{M_0}{M})$$

f_s : Static safety factor
C_0 : Basic static load rating
M_0 : Static-permissible moment (MP_0 · MR_0 · Mr_0)
P_C : Applied load
M : Applied moment

■ Reference value of static safety factor

Static safety factor written in the 〈Table. 1〉 should be used as the minimum reference value depending on each for use.

〈Table. 1〉 Reference value of static safety factor(fs)

Machine for use	Load condition	Lower limit of f_s
Standard industrial machine	With vibration or impact Without vibration or impact	1.0~1.3 2.0~3.0
Machine tools	With vibration or impact Without vibration or impact	1.0~1.5 2.5~7.0

■ Rated life span L

The life span of cross roller table can be calculated with the following formula.

$$L_0 = (\frac{f_T}{f_W} \bullet \frac{C}{P_C})^{\frac{10}{3}} \times 100$$

L : Rated life span (km)
(It's the total distance where 90% of the first group can reach without flaking when each of the same JVT · JVU type in the first group is put in motion under the same condition.)
C : Basic dynamic load rating (kN)
P_C : Applied load (kN)
f_T : Temperature factor refer to 〈Fig. 4〉
f_W : Load factor refer to 〈Fig. 4〉

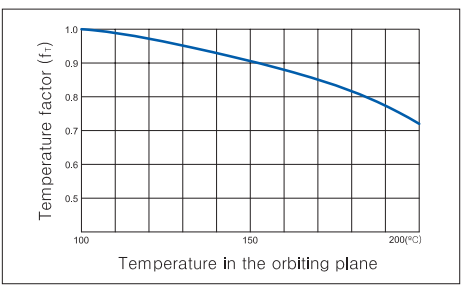
When the length and lap number of stroke is uniform, service life can be figured by using the following formula after rated life span(L) is calculated from the formula mentioned above.

$$L_h = (\frac{L \times 10^6}{2 \times \ell_s \times n_1 \times 60})$$

■ f_T : Temperature factor

When the environment temperature where the linear motion system is used is over 100℃, temperature factor below should be multiplied considering the possible adverse effect caused by high temperature.

〈Fig. 4〉 Temperature factor (f_T)



Note) In case that environment temperature is over 100℃, contact BSQ

■ f_w : Load factor

Shuffling machine is likely to be affected by vibration or impact during drive. While driving high speed, particularly, if is a lot more difficult to calculate each value precisely. Therefore, when the load applied to the JVT and JVU type cannot be calculated or the impact of speed vibration is large, the load factor in the table below should be divided into the basic load rating(C) and (C_0).

〈Table. 2〉 Load factor (f_w)

Vibration · Impact	Velocity (V)	f_w
Meager	For meager speed $V \leqq 0.25$ *m/s*	1.0~1.2
	For low speed $0.25 < V \leqq 1.0$ *m/s*	1.2~1.5
Standard industrial machine	For average speed $1.0 < V \leqq 2.0$ *m/s*	1.5~2.0
Machine tools	For high speed $V > 2.0$ *m/s*	2.0~3.5

■ Cautions when using

■ Lubrication

1) To lubricate a cross roller table, use lithium soap grease or properly just like with the standard bearing.
2) Completely eliminate a rust preventive oil and apply a lubricant to the product before using a product.
3) Do not mix lubricants having different physical properties.
4) General lubricants may not be used at clean rooms or places exposed to regular vibrations, or under special environments such as vacuum, low temperatures and high temperatures.
5) Please consult with BSQ before using the lubricants when special lubricants are to be used.

■ Handing

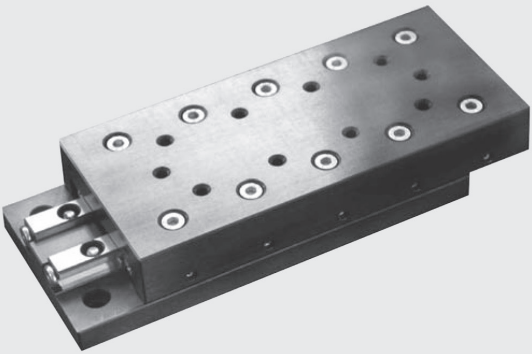
1) Please do not disassemble a product as the separation of components from product is responsible for inflow of dust into the product or poor assembling accuracy in mounting faces of the respective components.
2) The cross roller table may be damaged if a cross roller table is dropped or impacted. Please be careful not to impact the product as the impact mat damage functions of the product although the product looks normal when an impact is applied to a product.

■ Additional process of table & base

1) Be careful not to let any ships put into the cross roller guide parts.
2) Fixing holes should be blocked, not penetrated. It also can be manufactured according to specific designation. Clearance of the cross roller table is already adjusted with appropriate preload, thus do not touch the clearance adjust screws.

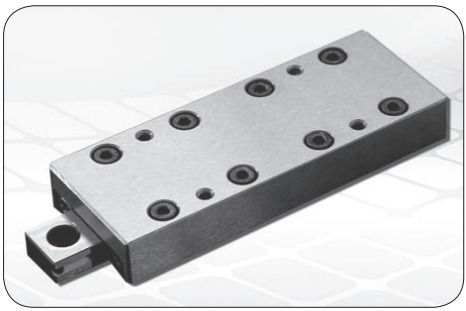
■ Distortion of a cage

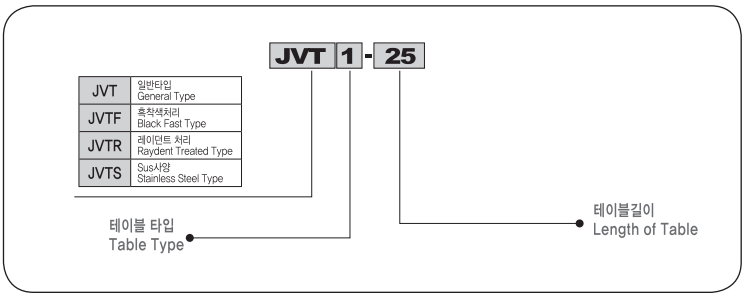
Although roller-sustaining cage moves with sharp accuracy, distortion can occur due to a moment or mechanic vibrations. When such distortion is the problem, using miniature version of linear rail system is recommended.



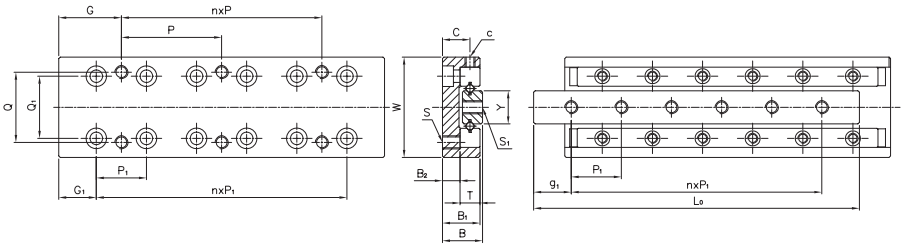
JVT 1

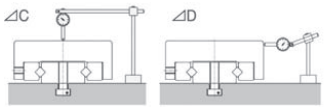
베이스 탭 타입
Base Tap Type





Specification / Model	주요치수 Main Dimension					테이블면치수 Table Surface Dimension								
	최대 스트로크 Max Stroke	폭 Width W ±0.1	높이 Height B ±0.1	길이 Length L_0	질량 Weight g	테이블장착탭위치 Table Tap Position Q	P	n x P	G	S	P_1	n x P_1	Q_1	G_1
JVT 1 – 25	12	20	8	25	23	14	18	1 x 18	3.5	M2.6 x 0.45	10	1 x 10	12.4	7.5
JVT 1 – 35	18			35	33		28	1 x 28				2 x 10		
JVT 1 – 45	25			45	43		20	1 x 20	12.5			3 x 10		
JVT 1 – 55	32			55	53		30	1 x 30				4 x 10		
JVT 1 – 65	40			65	63		20	2 x 20				5 x 10		
JVT 1 – 75	45			75	73		30	1 x 30	22.5			6 x 10		
JVT 1 – 85	50			85	83		30	2 x 30	12.5			7 x 10		





정도 Accuracy

각방향의 모멘트 Moment in each direction

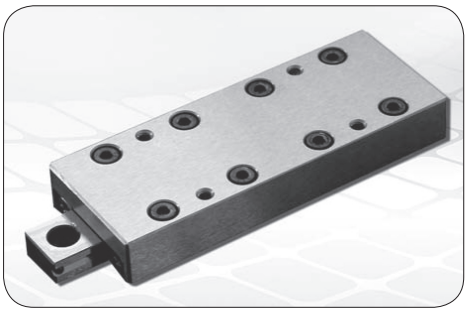
(Unit : mm)

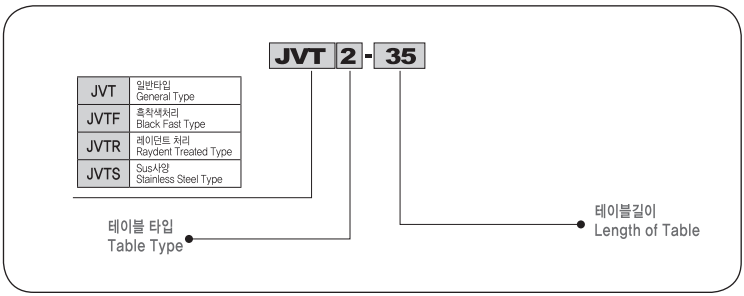
측면지수 Side Dimension						베이스면 치수 장착구멍 위치 Base Dimension & Hole Position					기본정격하중 Basic Proper Load		정격허용모멘트 Regular Permissible Moment			정도 ㎛ Accuracy	
B1	B2	T	Y	C	c	S1	P1	n x P1	g1	롤러수 The number of roller Z	C KN	Co KN	MA N·m	MB N·m	MC N·m	C	D
7.5	3.5	4	6.6	5.5	M2	M2.6 x 0.45	7.5	2 x 7.5	5	5	0.46	0.61	2.29	1.52	1.25	2	4
							10	2 x 10	7.5	7	0.63	0.92	3.44	2.62	2.32		
								3 x 10		10	0.95	1.53	5.73	4.14	4.53		5
								4 x 10		12	1.09	1.83	6.87	5.92	6.41		
								5 x 10		14	1.23	2.14	8.02	8.08	8.62		
								6 x 10		18	1.50	2.75	10.3	13.3	14.0		
								7 x 10		20	1.63	3.05	11.5	16.4	17.2		

1KN ≒ 102Kgf 1N · m ≒ 0.102Kgf

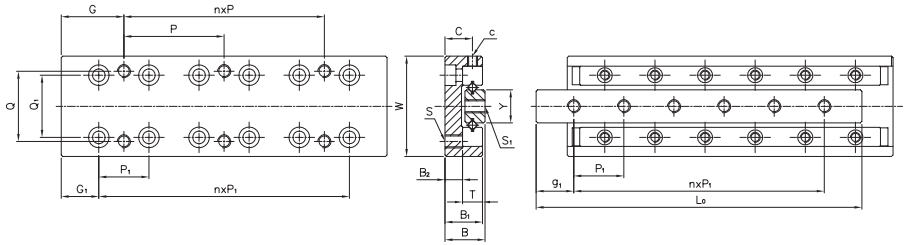
JVT 2

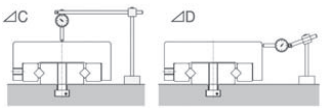
베이스 탭 타입
Base Tap Type





Specification / Model	주요치수 Main Dimension					테이블 면 치수 Table Surface Dimension								
	최대 스트로크 Max Stroke	폭 Width W ±0.1	높이 Height B ±0.1	길이 Length L_0	질량 Weight g	테이블장착탭위치 Table Tap Position Q	P	n x P	G	S	P_1	n x P_1	Q_1	G_1
JVT 2 – 35	18	30	12	35	78	22	28	1 x 28	3.5	M3 x 0.5	15	1 x 15	20	10
JVT 2 – 50	30			50	114		43	1 x 43				2 x 15		
JVT 2 – 65	40			65	150		30	1 x 30	17.5			3 x 15		
JVT 2 – 80	50			80	186		45	1 x 45				4 x 15		
JVT 2 – 95	60			95	222		30	2 x 30				5 x 15		
JVT 2 – 110	70			110	258		45	1 x 45	32.5			6 x 15		
JVT 2 – 125	80			125	294		45	2 x 45	17.5			7 x 15		





정도 Accuracy

각방향의 모멘트 Moment in each direction

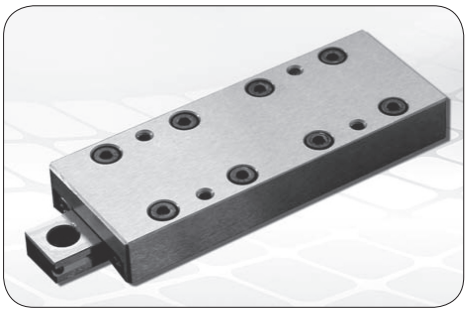
(Unit : mm)

측면지수 Side Dimension						베이스면 치수 장착구멍 위치 Base Dimension & Hole Position					기본정격하중 Basic Proper Load		정격허용모멘트 Regular Permissible Moment			정도 ㎛ Accuracy	
B1	B2	T	Y	C	c	S1	P1	n x P1	g1	롤러수 The number of roller Z	C KN	Co KN	MA N·m	MB N·m	MC N·m	C	D
11.5	5.5	6	12	8.5	M2	M3 x 0.5	20	1 x 20	7.5	5	0.84	1.09	7.06	4.32	3.55	2	4
							15	2 x 15	10	7	1.16	1.63	10.6	7.45	6.59		
								3 x 15		9	1.46	2.17	14.1	11.8	10.5		5
								4 x 15		12	2.01	3.26	21.2	16.8	18.2		
								5 x 15		14	2.26	3.80	24.7	23.0	24.5		
								6 x 15		17	2.51	4.34	28.2	37.9	35.7		
								7 x 15		19	2.76	4.89	31.8	46.7	44.3		

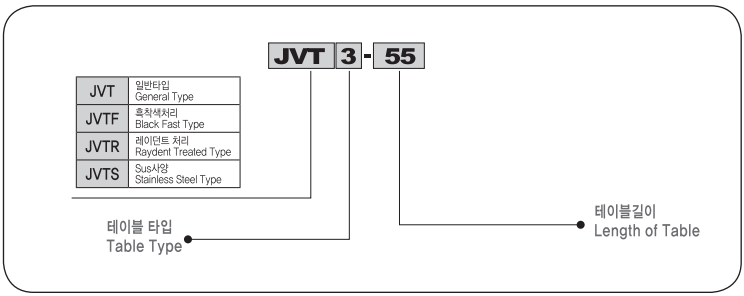
1KN ≒ 102Kgf 1N · m ≒ 0.102Kgf

JVT 3

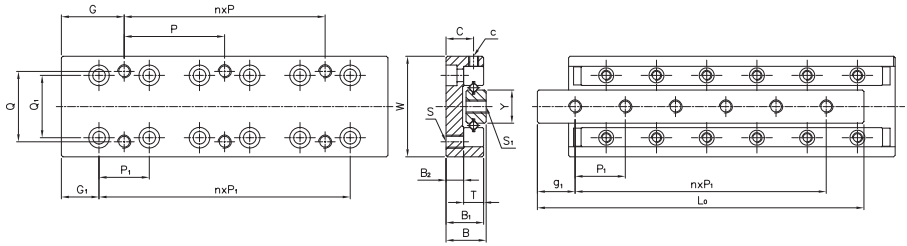
베이스 탭 타입
Base Tap Type

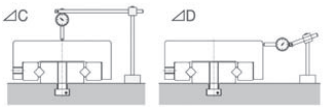


D
Cross Roller Slide Table



Specification / Model	주요치수 Main Dimension					테이블 면 치수 Table Surface Dimension								
	최대 스트로크 Max Stroke	폭 Width W ±0.1	높이 Height B ±0.1	길이 Length L_0	질량 Weight g	테이블장착탭위치 Table Tap Position Q	P	n x P	G	S	P_1	n x P_1	Q_1	G_1
JVT 3 – 55	30	40	16	55	229	30	40	1 x 40	7.5	M4 x 0.7	25	1 x 25	28.4	15
JVT 3 – 80	45			80	337		65	1 x 65				2 x 25		
JVT 3 – 105	60			105	445		50	1 x 50	27.5			3 x 25		
JVT 3 – 130	75			130	553		75	1 x 75				4 x 25		
JVT 3 – 155	90			155	661		50	2 x 50				5 x 25		
JVT 3 – 180	105			180	769		75	1 x 75	52.5			6 x 25		
JVT 3 – 205	130			205	877		75	2 x 75	27.5			7 x 25		





정도 Accuracy

각방향의 모멘트 Moment in each direction

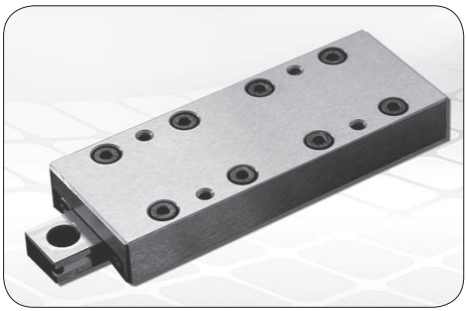
(Unit : mm)

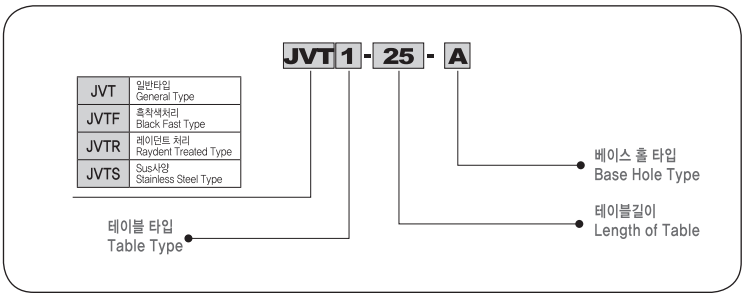
측면지수 Side Dimension						베이스면 치수 장착구멍 위치 Base Dimension & Hole Position					기본정격하중 Basic Proper Load		정격허용모멘트 Regular Permissible Moment			정도 ㎛ Accuracy	
B1	B2	T	Y	C	c	S1	P1	n x P1	g1	롤러수 The number of roller Z	C KN	Co KN	MA N·m	MB N·m	MC N·m	C	D
15.5	7.5	8	16	11.5	M2	M4 x 0.7	35	1 x 35	10	6	2.71	3.67	31.9	12.2	13.9	2	5
							25	2 x 25	15	10	4.06	6.11	53.1	33.1	36.2		
								3 x 25		13	4.68	7.33	63.8	64.6	59.8	3	6
								4 x 25		17	5.87	9.77	85	107	100		
								5 x 25		20	6.98	12.2	106	131	138		
								6 x 25		24	8.05	14.7	128	189	196		
								7 x 25		26	8.57	15.9	138	222	230		

1KN ≒ 102Kgf 1N · m ≒ 0.102Kgf

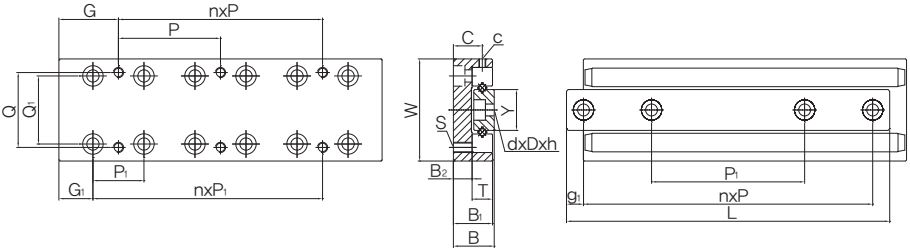
JVT 1-A

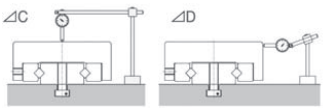
베이스 홀 타입
Base Hole Type



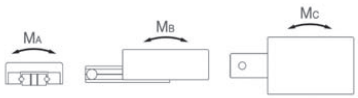


Specification / Model	주요치수 Main Dimension					테이블면치수 Table Surface Dimension								
	최대 스트로크 Max Stroke	폭 Width W ±0.1	높이 Height B ±0.1	길이 Length L_0	질량 Weight g	테이블장착탭위치 Table Tap Position Q	P	n x P	G	S	P_1	n x P_1	Q_1	G_1
JVT 1 – 25 – A	12	20	8	25	23	14	18	1 x 18	3.5	M2.6 x 0.45	10	1 x 10	12.4	7.5
JVT 1 – 35 – A	18			35	32		28	1 x 28				2 x 10		
JVT 1 – 45 – A	25			45	42		20	1 x 20	12.5			3 x 10		
JVT 1 – 55 – A	32			55	52		30	1 x 30				4 x 10		
JVT 1 – 65 – A	40			65	62		20	2 x 20				5 x 10		
JVT 1 – 75 – A	45			75	72		30	1 x 30	22.5			6 x 10		
JVT 1 – 85 – A	50			85	82		30	2 x 30	12.5			7 x 10		





정도 Accuracy



각방향의 모멘트 Moment in each direction

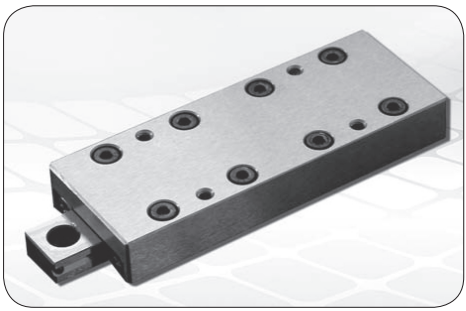
(Unit : mm)

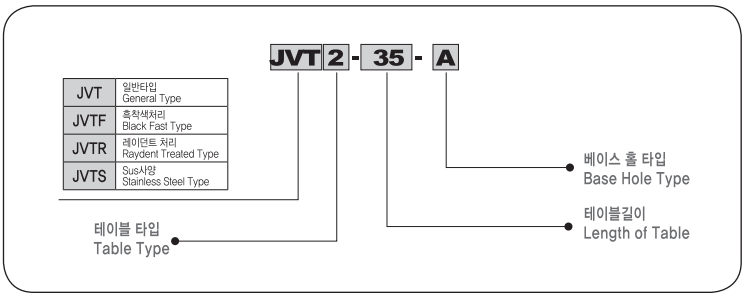
측면지수 Side Dimension						베이스면 치수 장착구멍 위치 Base Dimension & Hole Position					기본정격하중 Basic Proper Load		정격허용모멘트 Regular Permissible Moment			정도 ㎛ Accuracy	
B_1	B_2	T	Y	C	c	d x D x h	P_1	n x P_1	g_1	롤러수 The number of roller Z	C KN	Co KN	M_A N·m	M_B N·m	M_C N·m	C	D
7.5	3.5	4	6.6	5.5	M2	2.5 x 4.1 x 2.2	–	18	3.5	5	0.46	0.61	2.29	1.52	1.25	2	4
							–	25	5	7	0.63	0.92	3.44	2.62	2.32		
							25	38	3.5	10	0.95	1.53	5.73	4.14	4.53		5
							29	48	3.5	12	1.09	1.83	6.87	5.92	6.41		
							31	55	5	14	1.23	2.14	8.02	8.08	8.62		
							35	65	5	18	1.50	2.75	10.3	13.3	14.0		
							40	75	5	20	1.63	3.05	11.5	16.4	17.2		

1KN ≒ 102Kgf 1N · m ≒ 0.102Kgf

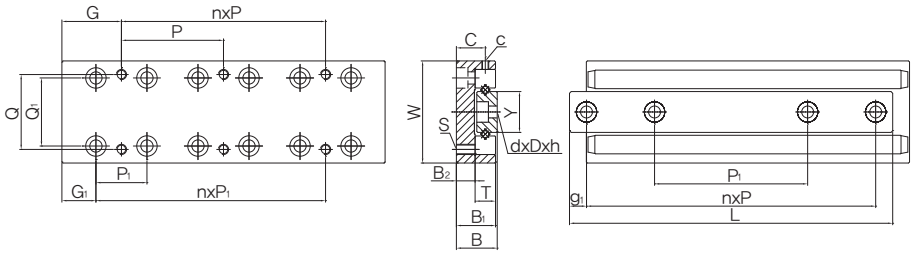
JVT 2-A

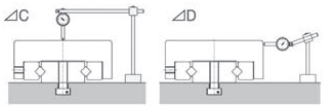
베이스 홀 타입
Base Hole Type





Specification / Model	주요치수 Main Dimension					테이블면치수 Table Surface Dimension								
	최대 스트로크 Max Stroke	폭 Width W ±0.1	높이 Height B ±0.1	길이 Length L_0	질량 Weight g	테이블장착탭위치 Table Tap Position Q	P	n x P	G	S	P_1	n x P_1	Q_1	G_1
JVT 2 – 35 – A	18	30	12	35	78	22	28	1 x 28	3.5	M3 x 0.5	15	1 x 15	20	10
JVT 2 – 50 – A	30			50	113		43	1 x 43				2 x 15		
JVT 2 – 65 – A	40			65	147		30	1 x 30	17.5			3 x 15		
JVT 2 – 80 – A	50			80	186		45	1 x 45				4 x 15		
JVT 2 – 95 – A	60			95	217		30	2 x 30				5 x 15		
JVT 2 – 110 – A	70			110	254		45	1 x 45	32.5			6 x 15		
JVT 2 – 125 – A	80			125	287		45	2 x 45	17.5			7 x 15		





정도 Accuracy

각방향의 모멘트 Moment in each direction

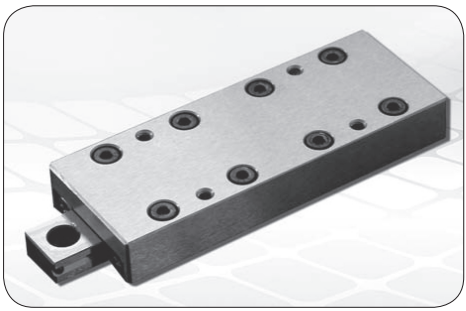
(Unit : mm)

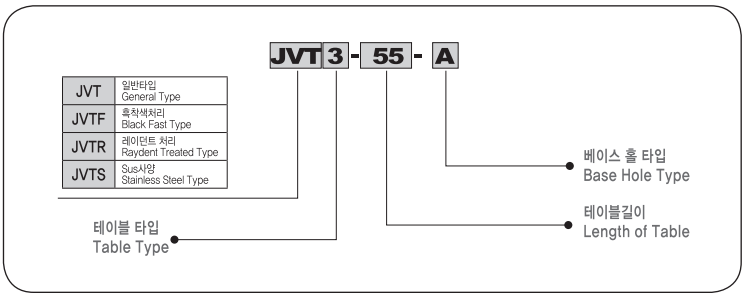
측면지수 Side Dimension						베이스면 치수 장착구멍 위치 Base Dimension & Hole Position					기본정격하중 Basic Proper Load		정격허용모멘트 Regular Permissible Moment			정도 ㎛ Accuracy	
B_1	B_2	T	Y	C	c	d x D x h	P_1	n x P_1	g_1	롤러수 The number of roller Z	C KN	Co KN	M_A N·m	M_B N·m	M_C N·m	C	D
11.5	5.5	6	12	8.5	M2	3.5 x 6 x 3.2	–	25	5	5	0.84	1.09	7.06	4.32	3.55	2	4
							–	35	7.5	7	1.16	1.63	10.6	7.45	6.59		
							33	55	5	9	1.46	2.17	14.1	11.8	10.5		5
							40	70	5	12	2.01	3.26	21.2	16.8	18.2		
							45	85	5	14	2.26	3.80	24.7	23.0	24.5		
							50	95	7.5	17	2.51	4.34	28.2	37.9	35.7		
							55	100	7.5	19	2.76	4.89	31.8	46.7	44.3		

1KN ≒ 102Kgf 1N · m ≒ 0.102Kgf

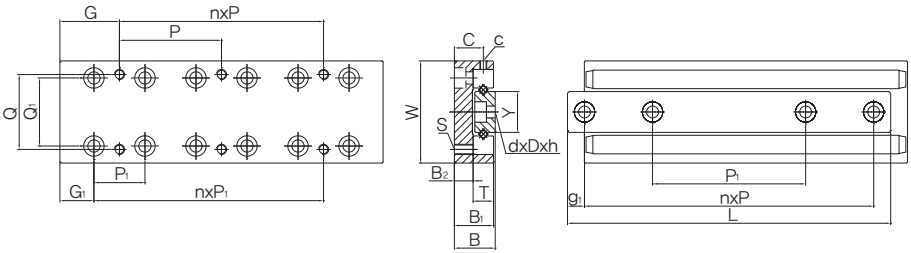
JVT 3-A

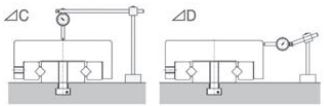
베이스 홀 타입
Base Hole Type





Specification / Model	주요치수 Main Dimension					테이블면치수 Table Surface Dimension								
	최대 스트로크 Max Stroke	폭 Width W ±0.1	높이 Height B ±0.1	길이 Length L_0	질량 Weight g	테이블장착탭위치 Table Tap Position Q	P	n x P	G	S	P_1	n x P_1	Q_1	G_1
JVT 3 – 55 – A	30	40	16	55	226	30	40	1 x 40	7.5	M4 x 0.7	25	1 x 25	28.4	15
JVT 3 – 80 – A	45			80	334		65	1 x 65				2 x 25		
JVT 3 – 105 – A	60			105	442		50	1 x 50	27.5			3 x 25		
JVT 3 – 130 – A	75			130	550		75	1 x 75				4 x 25		
JVT 3 – 155 – A	90			155	658		50	2 x 50				5 x 25		
JVT 3 – 180 – A	105			180	766		75	1 x 75	52.5			6 x 25		
JVT 3 – 205 – A	130			205	874		75	2 x 75	27.5			7 x 25		





정도 Accuracy

각방향의 모멘트 Moment in each direction

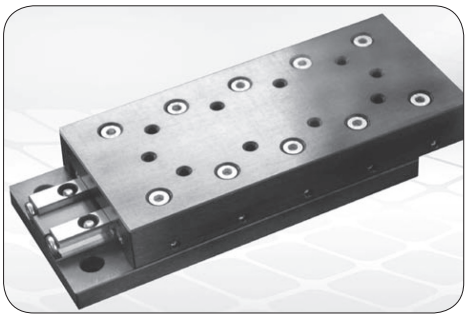
(Unit : mm)

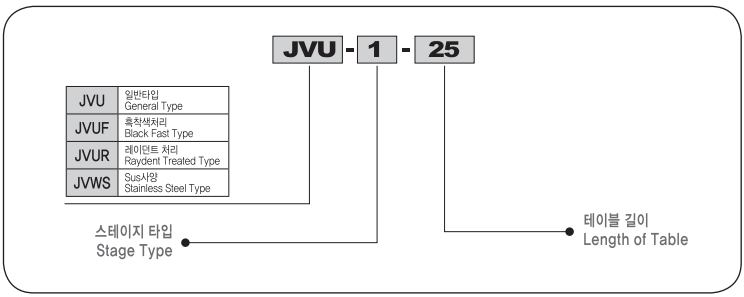
측면지수 Side Dimension						베이스면 치수 장착구멍 위치 Base Dimension & Hole Position					기본정격하중 Basic Proper Load		정격허용모멘트 Regular Permissible Moment			정도 ㎛ Accuracy	
B_1	B_2	T	Y	C	c	d x D x h	P_1	n x P_1	g_1	롤러수 The number of roller Z	C KN	Co KN	M_A N·m	M_B N·m	M_C N·m	C	D
15.5	7.5	8	16	11.5	M2	4.5 x 7.5 x 4.2	–	40	7.5	6	2.71	3.67	31.9	12.2	13.9	2	5
							43	68	6	10	4.06	6.11	53.1	33.1	36.2		
							55	90	7.5	13	4.68	7.33	63.8	64.6	59.8	3	6
							65	115		17	5.87	9.77	85	107	100		
							95	140		20	6.98	12.2	106	131	138		
							85	165		24	8.05	14.7	128	189	196		
							90	190		26	8.57	15.9	138	222	230		

1KN ≒ 102Kgf 1N · m ≒ 0.102Kgf

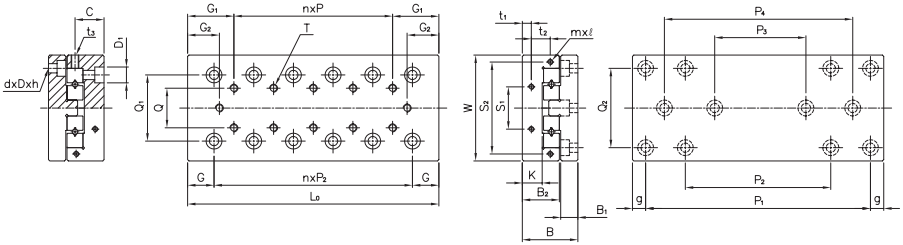
JVU 1

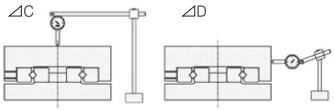
소형 스테이지
Miniature Stage



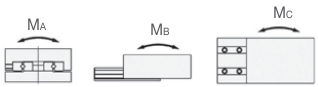


Specification / Model	주요치수 Main Dimension					테이블 면치수 Table Surface Dimension										
						테이블장착탭위치 Table Tap Position					테이블장착탭위치 Table Tap Position					
	최대 스트로크 Max Stroke	폭 Width W ±0.1	높이 Height B ±0.1	길이 Length L_0	질량 Weight g	Q	n x P	G_1	G_2	T	Q_1	n x P_2	G	s_1	t_2	m x ℓ
JVU 1 – 25	12	30	17	25	85	10	–	12.5	2.5	M2 x 0.4	18	1 x 10	7.5	12.0	2.5	M2 x 4
JVU 1 – 35	18			35	117		1 x 10		4.5			2 x 10				
JVU 1 – 45	25			45	149		2 x 10		6			3 x 10				
JVU 1 – 55	32			55	181		3 x 10		7.5			4 x 10				
JVU 1 – 65	40			65	213		4 x 10		8.5			5 x 10				
JVU 1 – 75	45			75	245		5 x 10		11			6 x 10				
JVU 1 – 85	50			85	277		6 x 10		13.5			7 x 10				





정도 Accuracy



각방향의 모멘트 Moment in each direction

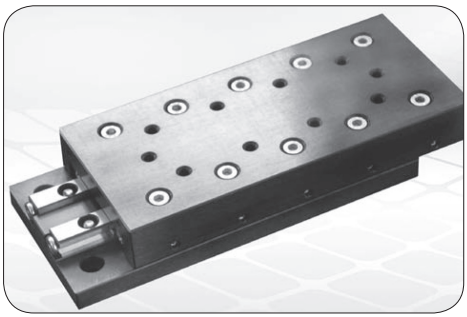
(Unit : mm)

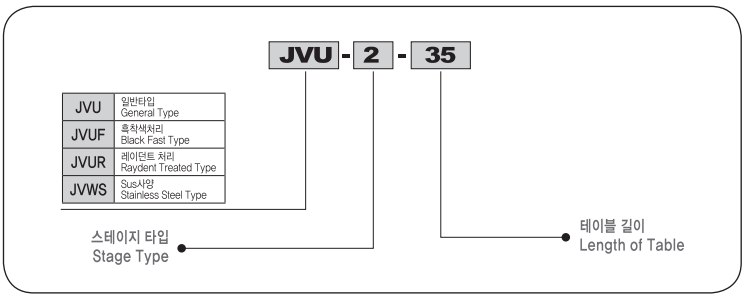
Table Surface Dimension							베이스면 치수 장착구멍 위치 Base Dimension & Hole Position					롤러수 The number of roller Z	기본정격하중 Basic Proper Load		정격허용모멘트 Regular Permissible Moment			정도 ㎛ Accuracy	
B2	B1	K	d x D x h	D1	C	t3	Q2	P1	P2	P3	P4	g		C KN	Co KN	MA N·m	MB N·m	MC N·m	C	D
11	5.5	6.5	2.55 x 4.1 x 2.5	4.1	9	M2	22	18	–	–	–	3.5	5	0.46	0.61	4.12	1.52	1.25	2	4
								28	–	–	–		7	0.63	0.92	6.18	2.62	2.32		
								38	–	–	–		10	0.95	1.53	10.3	4.14	4.53		5
								48	28	–	–		12	1.09	1.83	12.4	5.92	6.41		
								58	38	–	–		14	1.23	2.14	14.4	8.08	8.62		
								68	48	–	–		18	1.50	2.75	18.6	13.3	14.0		
								78	58	–	–		20	1.63	3.05	20.6	16.4	17.2		

1KN ≒ 102Kgf 1N · m ≒ 0.102Kgf

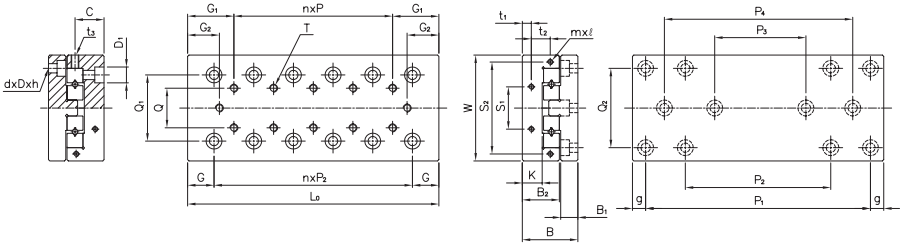
JVU 2

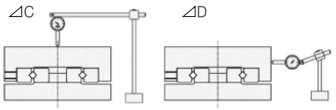
소형 스테이지
Miniature Stage



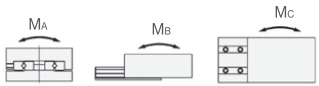


Specification / Model	주요치수 Main Dimension					테이블 면치수 Table Surface Dimension										
						테이블장착탭위치 Table Tap Position					테이블장착탭위치 Table Tap Position					
	최대 스트로크 Max Stroke	폭 Width W ±0.1	높이 Height B ±0.1	길이 Length L_0	질량 Weight g	Q	n x P	G_1	G_2	T	Q_1	n x P_2	G	s_1	t_2	m x ℓ
JVU 2 – 35	18	40	21	35	199	15	–	17.5	3	M3 x 0.5	25	1 x 15	10	16.0	3.4	M2 x 4
JVU 2 – 50	30			50	278		1 x 15		4.5			2 x 15				
JVU 2 – 65	40			65	357		2 x 15		7			3 x 15				
JVU 2 – 80	50			80	436		3 x 15		9.5			4 x 15				
JVU 2 – 95	60			95	515		4 x 15		12			5 x 15				
JVU 2 – 110	70			110	594		5 x 15		14.5			6 x 15				
JVU 2 – 125	80			125	673		6 x 15		17			7 x 15				





정도 Accuracy



각방향의 모멘트 Moment in each direction

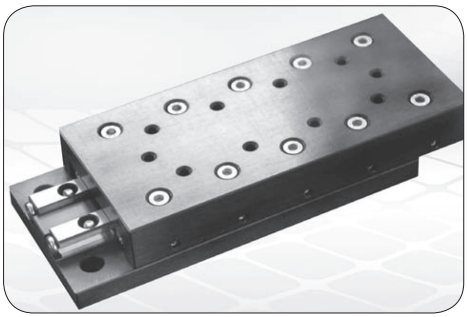
(Unit : mm)

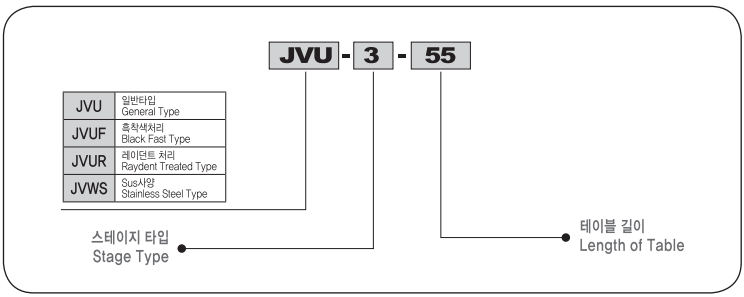
Table Surface Dimension							베이스면 치수 장착구멍 위치 Base Dimension & Hole Position						롤러수 The number of roller Z	기본정격하중 Basic Proper Load		정격허용모멘트 Regular Permissible Moment			정도 ㎛ Accuracy	
B2	B1	K	d x D x h	D1	C	t3	Q2	P1	P2	P3	P4	g		C KN	Co KN	MA N·m	MB N·m	MC N·m	C	D
14	6.5	7.5	3.5 x 6 x 3.5	6	11	M3	30	25	–	–	–	5	5	0.84	1.09	9.77	4.32	3.55	2	4
								40	–	–	–		7	1.16	1.63	14.7	7.45	6.59		
								55	–	–	–		9	1.46	2.17	19.5	11.8	10.6		5
								70	40	–	–		12	2.01	3.26	29.3	16.9	18.2		
								85	55	–	–		14	2.26	3.80	34.2	23	24.5		
								100	70	–	–		17	2.51	4.34	39.1	37.9	35.7	3	6
								115	85	–	–		19	2.76	4.89	44.0	46.7	44.3		

1KN ≒ 102Kgf 1N · m ≒ 0.102Kgf

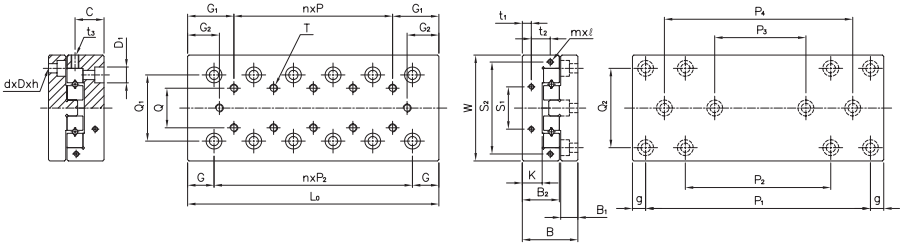
JVU 3

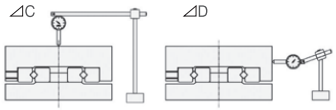
소형 스테이지
Miniature Stage



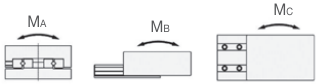


Specification / Model	주요치수 Main Dimension					테이블 면치수 Table Surface Dimension										
						테이블장착탭위치 Table Tap Position					테이블장착탭위치 Table Tap Position					
	최대 스트로크 Max Stroke	폭 Width W ±0.1	높이 Height B ±0.1	길이 Length L_0	질량 Weight g	Q	n x P	G_1	G_2	T	Q_1	n x P_2	G	s_1	t_2	m x ℓ
JVU 3 – 55	30	60	28	55	570	25	–	27.5	5.5	M4 x 0.7	39	1 x 25	15	40	5.5	M3 x 6
JVU 3 – 80	45			80	825		1 x 25		10.5			2 x 25				
JVU 3 – 105	60			105	1080		2 x 25		15.5			3 x 25				
JVU 3 – 130	75			130	1335		3 x 25		20.5			4 x 25				
JVU 3 – 155	90			155	1590		4 x 25		25.5			5 x 25				
JVU 3 – 180	105			180	1845		5 x 25		30.5			6 x 25				
JVU 3 – 205	130			205	2100		6 x 25		30.5			7 x 25				





정도 Accuracy



각방향의 모멘트 Moment in each direction

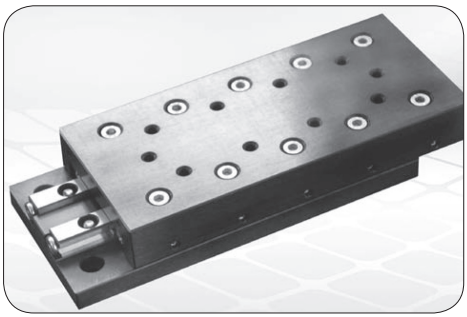
(Unit : mm)

Table Surface Dimension							베이스면 치수 장착구멍 위치 Base Dimension & Hole Position					롤러수 The number of roller Z	기본정격하중 Basic Proper Load		정격허용모멘트 Regular Permissible Moment			정도 ㎛ Accuracy	
B_2	B_1	K	d x D x h	D_1	C	t_3	Q_2	P_1	P_2	P_3	P_4	g		C KN	C_O KN	M_A N·m	M_B N·m	M_C N·m	C	D
18.5	9	10	4.5 x 7.5 x 5	7.5	15	M4	40	35	–	–	–	10	6	2.71	3.67	51.3	12.2	13.9	2	5
								60	–	–	–		10	4.06	6.11	85.5	33.1	36.2		
								85	–	–	–		13	4.68	7.33	103	64.6	59.8	3	6
								110	–	–	–		17	5.87	9.77	137	107	100		
								135	–	85	–		20	6.98	12.2	171	131	138		
								160	–	110	–		24	8.05	14.7	205	189	196		7
								185	85	135	–		26	8.57	15.9	222	222	230		

1KN ≒ 102Kgf 1N · m ≒ 0.102Kgf

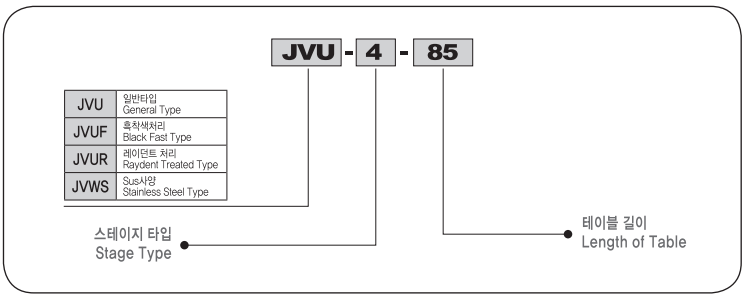
JVU 4

소형 스테이지
Miniature Stage

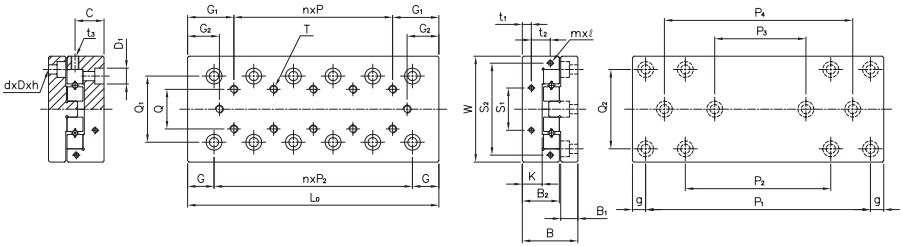


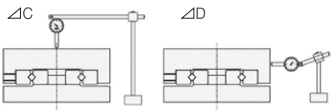
D

Cross Roller Slide Table

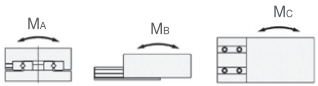


Specification / Model	주요치수 Main Dimension					테이블 면치수 Table Surface Dimension										
	최대 스트로크 Max Stroke	폭 Width W ±0.1	높이 Height B ±0.1	길이 Length L_0	질량 Weight g	테이블장착탭위치 Table Tap Position Q	n x P	G_1	G_2	T	테이블장착탭위치 Table Tap Position Q_1	n x P_2	G	s_1	t_2	m x ℓ
JVU 4 – 85	50	80	35	85	1500	40	–	42.5	10.5	M5 x 0.8	53	1 x 40	22.5	55	6.5	M3 x 6
JVU 4 – 125	75			125	2310		1 x 40		18			2 x 40				
JVU 4 – 165	105			165	3120		2 x 40		23			3 x 40				
JVU 4 – 205	135			205	3930		3 x 40		30.5			4 x 40				
JVU 4 – 245	155			245	4740		4 x 40		38			5 x 40				
JVU 4 – 285	185			285	5550		5 x 40		43			6 x 40				





정도 Accuracy



각방향의 모멘트 Moment in each direction

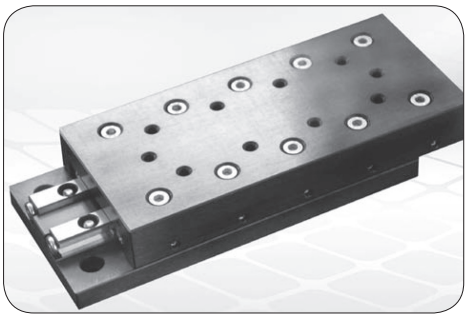
(Unit : mm)

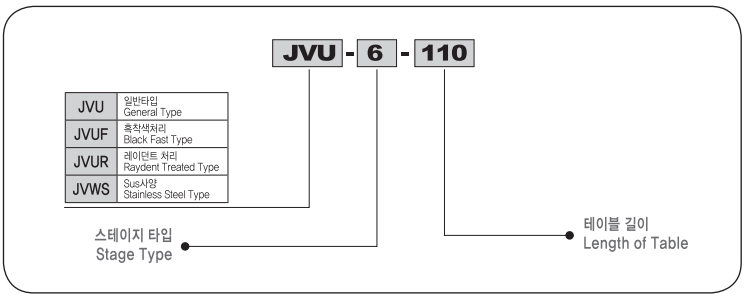
Table Surface Dimension							베이스면 치수 장착구멍 위치 Base Dimension & Hole Position						롤러수 The number of roller Z	기본정격하중 Basic Proper Load		정격허용모멘트 Regular Permissible Moment			정도 ㎛ Accuracy	
B2	B1	K	d x D x h	D1	C	t3	Q2	P1	P2	P3	P4	g		C KN	Co KN	MA N·m	MB N·m	MC N·m	C	D
24	10.5	12.5	5.5 x 9.5 x 6	9.5	18.5	M4	60	65	–	–	–	10	7	5.90	8.11	162	64.9	57.4	2	5
								80	–	–	–	22.5	11	8.82	13.5	270	147	134	3	6
								120	–	–	–		14	11.5	18.9	378	200	214		7
								160	80	–	–		18	14.0	24.3	486	330	347		
								200	120	–	–		22	16.3	29.7	594	492	513		
								240	160	–	–		26	18.6	35.1	703	687	711		

1KN ≒ 102Kgf 1N · m ≒ 0.102Kgf

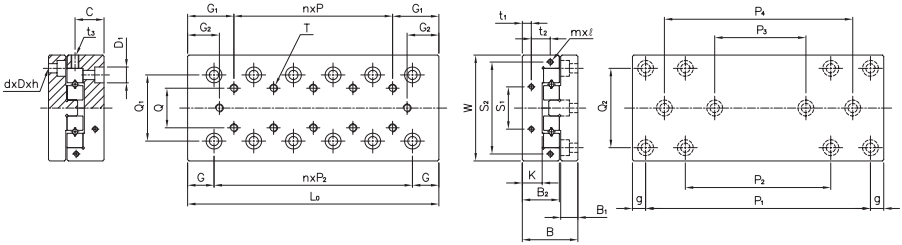
JVU 6

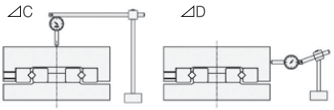
소형 스테이지
Miniature Stage





Specification / Model	주요치수 Main Dimension					테이블 면치수 Table Surface Dimension												
	최대 스트로크 Max Stroke	폭 Width W ±0.1	높이 Height B ±0.1	길이 Length L_0	질량 Weight g	테이블장착탭위치 Table Tap Position Q	n x P	G_1	G_2	T	테이블장착탭위치 Table Tap Position Q_1	n x P_2	G	S_1	t_2		m x ℓ	
JVU 6 – 110	60	100	45	110	3.2	50	–	55	16	M6	63	1 x 50	30	60	92	8	15	M4 x 8
JVU 6 – 160	95			160	4.6		1 x 50		23.5			2 x 50						
JVU 6 – 210	130			210	6		2 x 50		31			3 x 50						
JVU 6 – 260	165			260	7.4		3 x 50		38.5			4 x 50						
JVU 6 – 310	200			310	8.7		4 x 50		46			5 x 50						
JVU 6 – 360	235			360	10.1		5 x 50		53.5			6 x 50						
JVU 6 – 410	265			410	11.5		6 x 50		63			7 x 50						





정도 Accuracy

각방향의 모멘트 Moment in each direction

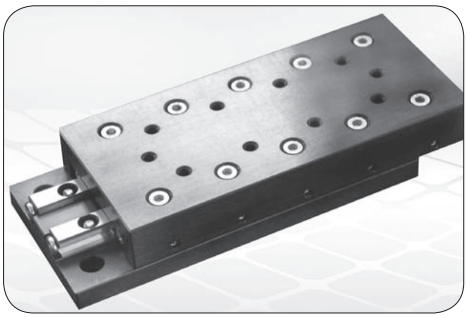
(Unit : mm)

Table Surface Dimension							베이스면 치수 장착구멍 위치 Base Dimension & Hole Position					롤러수 The number of roller Z	기본정격하중 Basic Proper Load		정격허용모멘트 Regular Permissible Moment			정도 ㎛ Accuracy	
B2	B1	K	d x D x h	D1	C	t3	Q2	P1	P2	P3	P4	g		C KN	Co KN	MA N·m	MB N·m	MC N·m	C	D
31	13	15	7 x 11 x 7	11	23.5	M5	60	90	–	–	–	10	6	16.4	22.7	510	150	172	3	6
								140	–	–	–		9	20.5	30.2	680	410	367	3	6
								190	–	90	–		13	28.2	45.3	1020	800	740	3	7
								240	–	140	–		16	35.3	60.5	1360	1040	1100	3	7
								290	–	190	–		19	38.8	68.0	1530	1630	1540	4	8
								340	140	240	–		22	45.3	83.1	1870	1970	2050	4	8
								390	190	290	–		26	51.6	98.3	2210	2750	2840	4	8

1KN ≒ 102Kgf 1N · m ≒ 0.102Kgf

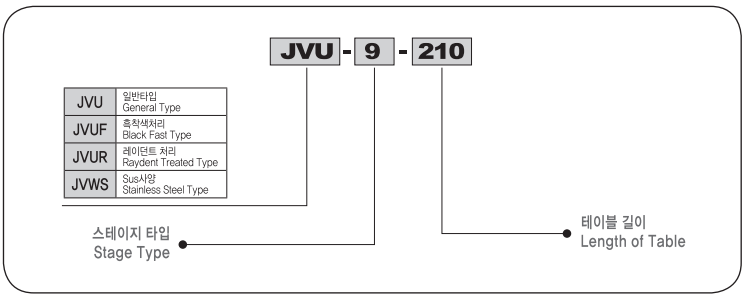
JVU 9

소형 스테이지
Miniature Stage

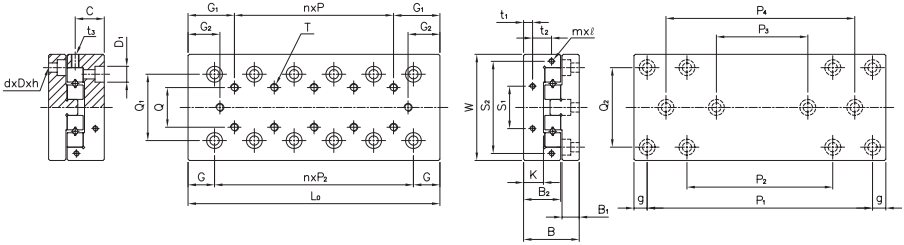


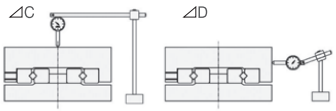
D

Cross Roller Slide Table

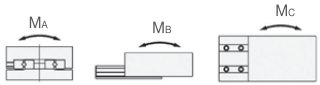


Specification / Model	주요치수 Main Dimension					테이블 면치수 Table Surface Dimension												
	최대 스트로크 Max Stroke	폭 Width W ±0.1	높이 Height B ±0.1	길이 Length L_0	질량 Weight g	테이블장착탭위치 Table Tap Position Q	n x P	G_1	G_2	T	테이블장착탭위치 Table Tap Position Q_1	n x P_2	G	s_1	t_2		m x ℓ	
JVU 9 – 210	130	145	60	210	12	85	–	105	27	M8	96	1 x 100	55	90	135	11	20	M4 x 8
JVU 9 – 310	180			310	17.6		1 x 100		52			2 x 100						
JVU 9 – 410	350			410	23.2		2 x 100					3 x 100						
JVU 9 – 510	450			510	28.8		3 x 100					4 x 100						
JVU 9 – 610	550			610	34.4		4 x 100		17			5 x 100						
JVU 9 – 710	650			710	40		5 x 100					6 x 100						
JVU 9 – 810	750			810	45.6		6 x 100					7 x 100						





정도 Accuracy



각방향의 모멘트 Moment in each direction

(Unit : mm)

Table Surface Dimension							베이스면 치수 장착구멍 위치 Base Dimension & Hole Position					롤러수 The number of roller Z	기본정격하중 Basic Proper Load		정격허용모멘트 Regular Permissible Moment			정도 ㎛ Accuracy	
B2	B1	K	d x D x h	D1	C	t3	Q2	P1	P2	P3	P4	g		C KN	Co KN	MA N·m	MB N·m	MC N·m	C	D
43	16	21	9 x 14 x 9	14	32	M6	90	100	–	–	–	55	9	52.3	75.8	2730	1440	1290	3	7
								200	–	–	–		14	81.1	133	4780	2810	2990	3	7
								300	–	100	–		15	81.1	133	4780	3660	3420	4	8
								400	–	200	–		19	98.7	171	6140	5710	5410	4	8
								500	100	300	–		22	115	208	7500	6910	7200	4	9
								600	200	400	–		26	131	246	8870	9640	9980	4	9
								700	300	500	100		29	139	265	9550	12800	12400	5	10

1KN ≒ 102Kgf 1N · m ≒ 0.102Kgf