

SLIDE WAY NV type/NVT type

STUDROLLER system (Rivet Roller Structure)

The **STUDROLLER** system is based on a new concept to provide complete prevention of roller-cage slippage during operation. This system permits usage in all orientations and accommodates extremely high acceleration and deceleration.

The number of effective rollers has been increased to a maximum of 18!

The contact length between the rollers and the raceway surface has been extended 30 to 58%!

When compared with conventional SV types, this increases the load rating from 1.3 to 2.5 times!

Therefore:

Size Reduction

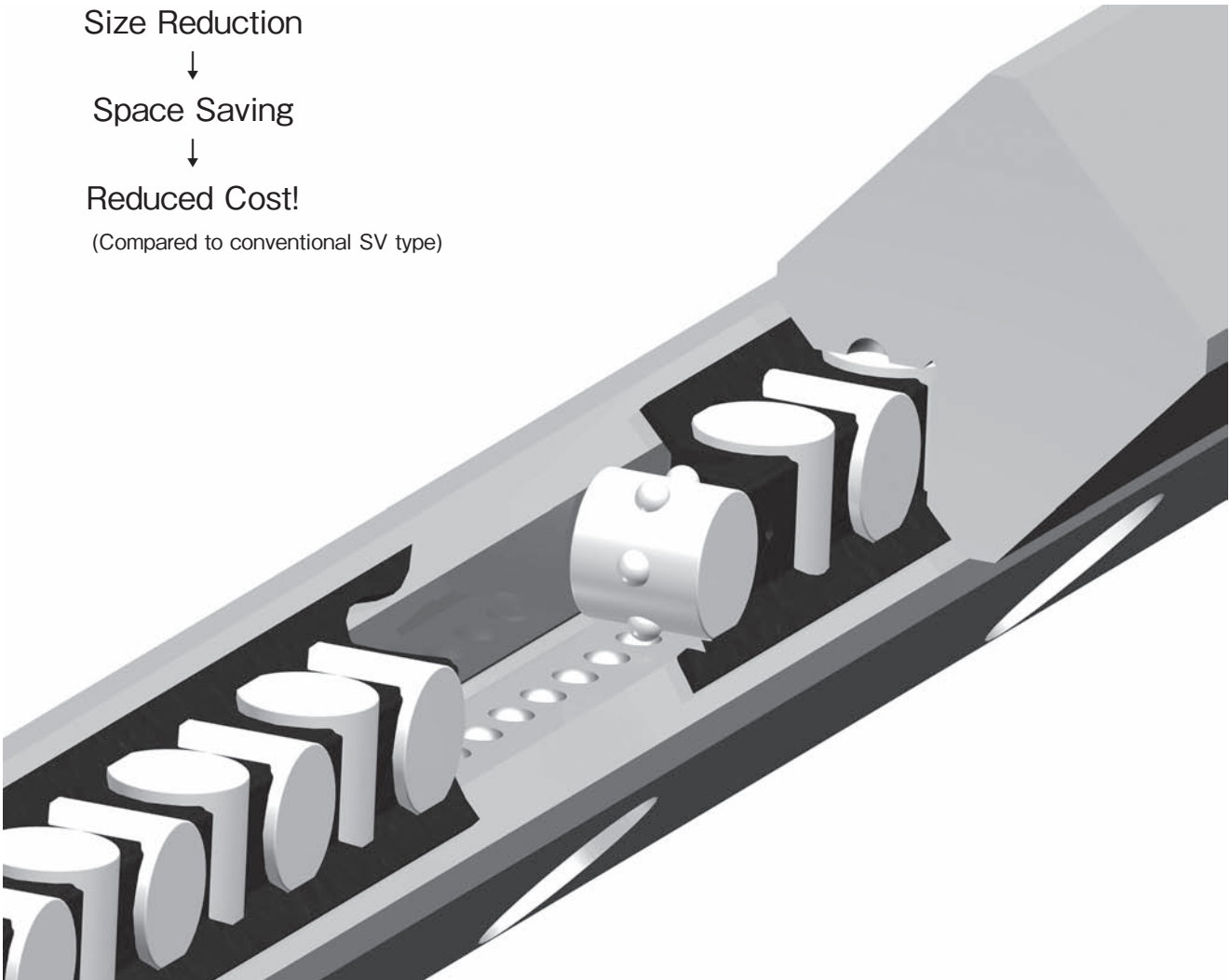


Space Saving



Reduced Cost!

(Compared to conventional SV type)



NB's Slide Way NV and NVT type bearings incorporate **STUDROLLER**, which has been developed based upon a new concept. This next-generation, linear-motion bearings possess smoothness and high accuracy afforded by completely eliminating slippage between the rollers and the raceway surface.

STRUCTURE AND FEATURES

NB's Slide Way NV and NVT types comprise precisely ground rails and R-retainers with built-in **STUDROLLERS**. The rails have been optimally designed so that the **STUDROLLERS** move smoothly, and the **STUDROLLERS** and precision rollers incorporated in the R-retainers enable slip-free operation between the raceway surface and the rollers resulting in motion with minimal frictional resistance.

Non-slip **STUDROLLER** System

The newly-conceived, built-in **STUDROLLER** system completely eliminates slippage inside the product and permits usage in all orientations, and accommodates extremely high acceleration and deceleration.

Compatibility with Conventional Types

The same dimensions as the Slide Way SV type enable complete compatibility between the two series.

Smooth Movement

The optimum design of the roller raceway and the (resin) R-retainers provides a quiet and smooth movement.

This design also results in less lubrication spray than the Slide Way SV type.

High Rigidity, High Load Capacity

Based on the new rail design, the contact length of the rollers and raceway surface is increased by 30 to 58%, and increasing the number of rollers by narrowing the roller pitch allows a load rating that is 1.3 to 2.5 times greater (compared to the conventional SV type).

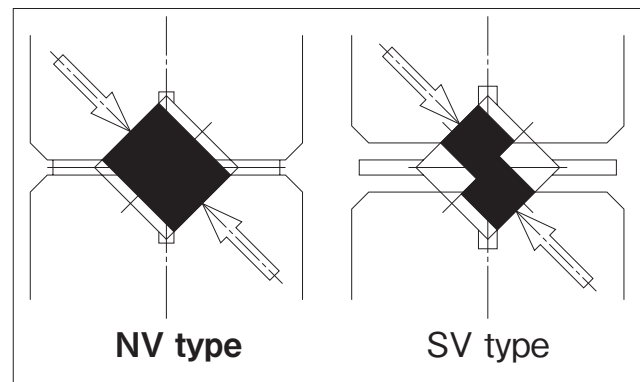
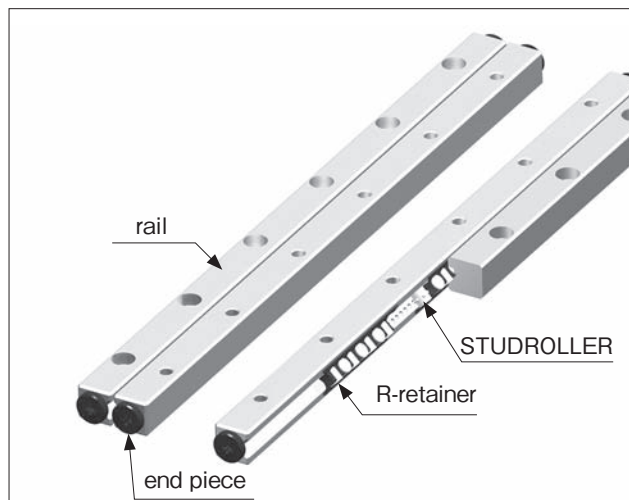
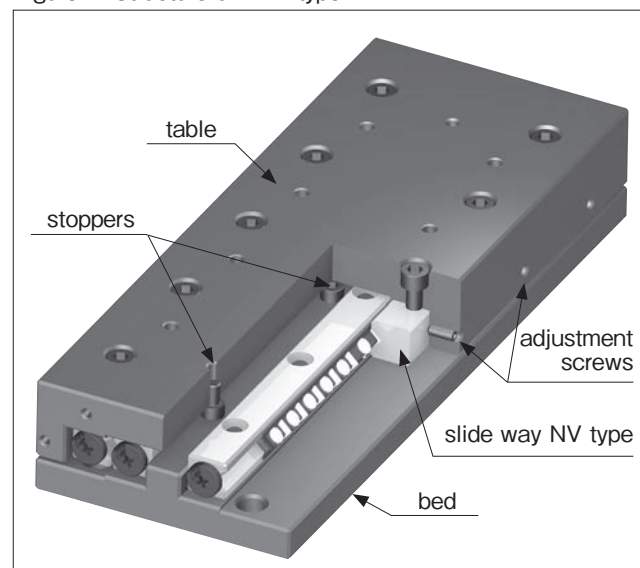


Figure 2. Structure of NVT type

Figure 1. Structure of NV type

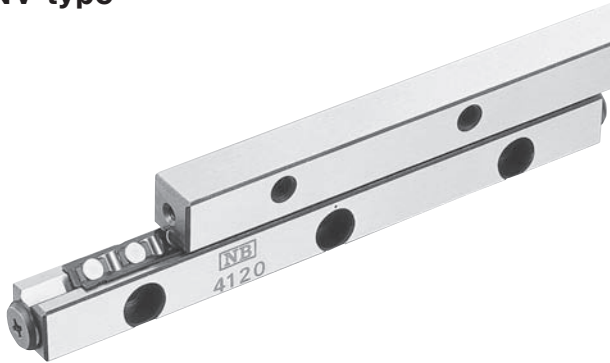


* In the NV type, a fastening plate is attached for the purpose of maintaining the center position of the R-retainer before assembly. Please see Installation Procedure on Page 5 and remove the fastening plate before use.



TYPE

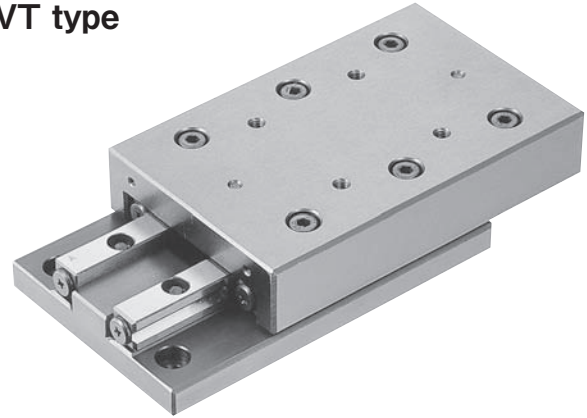
NV type



NV type

This product comprises a set of four rails, two R-retainers, and eight end pieces. It permits flexible design of the table which allows it to be used in a way that will best suit your application.

NVT type



NVT type

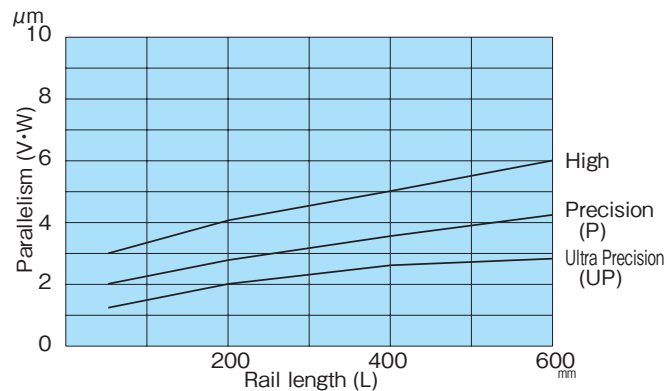
This is a slide table that incorporates the NV type. The table and bed have been precision machined to provide a high degree of accuracy and the product can be used as received, without any need whatsoever for troublesome accuracy or preload adjustments.

ACCURACY

NV type

The accuracy of the Slide Way NV type is represented as parallelism measured across the full length with a method such as shown in Figure 4. It is classified as High (no symbol), Precision (P), or Ultra Precision (UP). Special accuracies can also be accommodated. Please contact NB for details.

Figure 3. Parallelism



NVT type

The motion accuracy of the slide table NVT type is expressed as deviation on the dial indicators attached to the center of the top and side of the table, when the table is moved back and forth without load.

Figure 4. NV type Accuracy Measurement

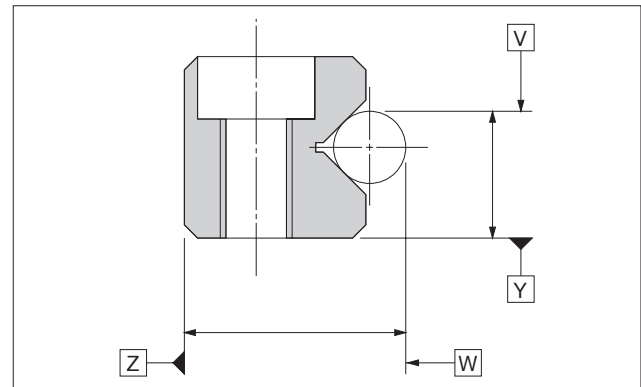
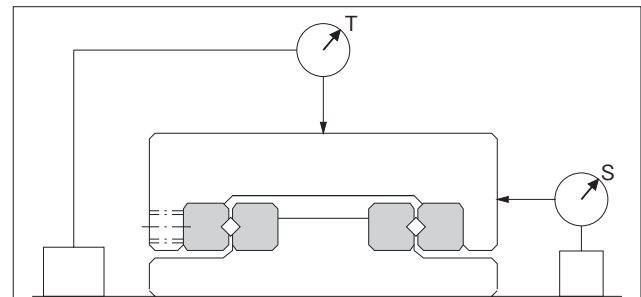


Figure 5. NVT type Accuracy Measurement



LOAD RATING

The load rating of the Slide Way NV and NVT types differs depending on the direction of the load.

Table 1. Change of Load Rating Corresponding to Load Direction

Basic dynamic load rating	Normal vertical direction	$1.0 \times C$
	Horizontal direction	$0.85 \times C$
	Reverse vertical direction	$0.7 \times C$
Basic static load rating	Normal vertical direction	$1.0 \times C_0$
	Horizontal direction	$0.85 \times C_0$
	Reverse vertical direction	$0.7 \times C_0$

* There may be a difference depending on size. Please contact NB for details.

Consideration has been given to holes for STUDROLLERS in the raceway surface, and the load rating in each direction has been determined.

RATED LIFE

The life of the Slide Way or the Slide Table is calculated with the following equations:

Rated Life

$$L = \left(\frac{1}{f_w} \cdot \frac{C}{P} \right)^{\frac{10}{3}} \cdot 50$$

L: rated life (km) f_w : load coefficient C: basic dynamic load rating (N) P: load (N)

Load Coefficient f_w

When calculating the load operating on the Slide Way, in addition to the mass of the object it is necessary to obtain the correct values of many factors including inertial force, and moment, caused by motion speed with various temporal changes. However, linear stroke motion is always accompanied by a repetition of starting and stopping, and there are also uncertain elements such as vibration and impact. This is why correct

LUBRICATION AND DUST PREVENTION

Lubrication

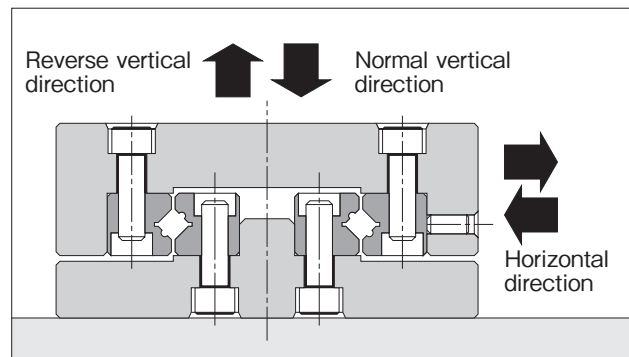
The Slide Way is pre-lubricated with lithium soap-based grease prior to shipment and is therefore ready for immediate use. Make sure to lubricate with a similar type of grease periodically according to the operating conditions.

NB also provides grease for low-dust linear systems. Please contact NB for details.

Dust Prevention

When dirt or dust enters the Slide Way, the accuracy and service life may deteriorate. Therefore, when used in a harsh environment,

Figure 6. Direction of Load



Life Time

$$L_h = \frac{L \cdot 10^3}{2 \cdot \ell_s \cdot n_1 \cdot 60}$$

L_h : life time (hours) ℓ_s : stroke (m) n_1 : Number of cycles per minute (cpm)

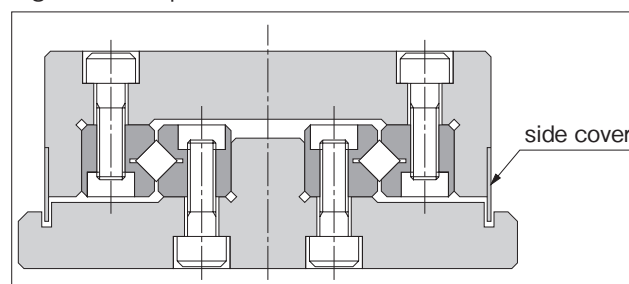
load calculation is difficult. Generally, the load coefficient f_w shown in Table 2 is used to simplify the calculation of life.

Table 2. Load Coefficient f_w

Operating condition		Load coefficient f_w
Load	Speed	
No impact / vibration	15m/min or less	1.0 to 1.5
Low impact / vibration	60m/min or less	1.5 to 2.0
High impact / vibration	60m/min or more	2.0 to 3.5

please protect the Slide Way by providing outside protective covers. (Figure 7)

Figure 7. Example of Dust Prevention Mechanism



MOUNTING NV TYPE

Accuracy of the mounting surface

To maximize the performance of the NB Slide Way, it is recommended that the precision of the mounting surface be finished to be equal to or greater than the degree of parallelism of the Slide Way.

- Parallelism of surface 1 against surface A
- Perpendicularity of surface 2 against surface A
- Parallelism of surface 3 against surface B
- Perpendicularity of surface 4 against surface B
- Parallelism of surface 2 against surface C
- Parallelism of surface 4 against surface C

Installation Procedure

Note: * Provide external mechanical stoppers.
 * Set the movement to be less than the specified stroke.

- (1) Remove burrs, scratches, and dust from the rail mounting surface of the table and bed, and be careful to prevent contamination during assembly.
- (2) Apply low-viscosity oil to the contact surfaces, and align the table and the bed. (Figure 10a)
- (3) Set the reference surface shown in Figure 4 onto the mounting surface with the rails assembled. Set the table in the center position, and tighten the adjustment screws lightly so that almost no gap remains. (Figure 10b)
- (4) Keep the table in the center, tighten the rail mounting bolts lightly, loosen the end pieces of both end faces, and remove the fastening plate. Following this, firmly retighten the end pieces.
- (5) While maintaining the conditions of (4), gently move the assembly through its stroke being certain to check that the specified stroke length has been secured, and that there is no problem with the operation, or any other irregularity.
- (6) Move the table to the center and tighten only the adjustment screws on the R-retainer with the recommended tightening torque as shown in Table 3. (Figure 10c)
- (7) Gently move the table to one stroke end, and check that the table has surely come into contact with the external mechanical stopper. Following this, tighten the adjustment screws on the R-retainer in the same manner as (6). (Figure 10d)
- (8) Move the table to the opposite stroke end, and tighten in the same manner as (6). (Figure 10e)
- (9) Fasten the mounting bolts on rails 1, 2, and 3 by tightening with the recommended torque shown in Table 4. (Figure 10f)
- (10) Set the dial indicators to the center of the table and to the side (reference surface) of the table. (Figure 10g)
- (11) Perform the final preload adjustment. While moving the table back and forth, repeat steps (6) and (7) until the dial indicators show a minimum deviation.
- (12) Finally, securely fasten rail 4, which has been provisionally mounted, using the recommended torque. As with the adjustment screws, successively tighten the mounting bolts on the R-retainer while moving the table.

Figure 8. Accuracy of Mounting Surface

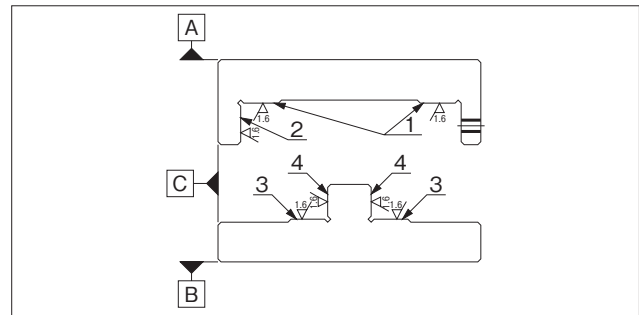


Figure 9. Example of Mounting

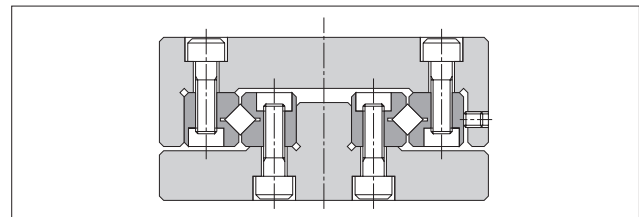


Figure 10. Installation Method

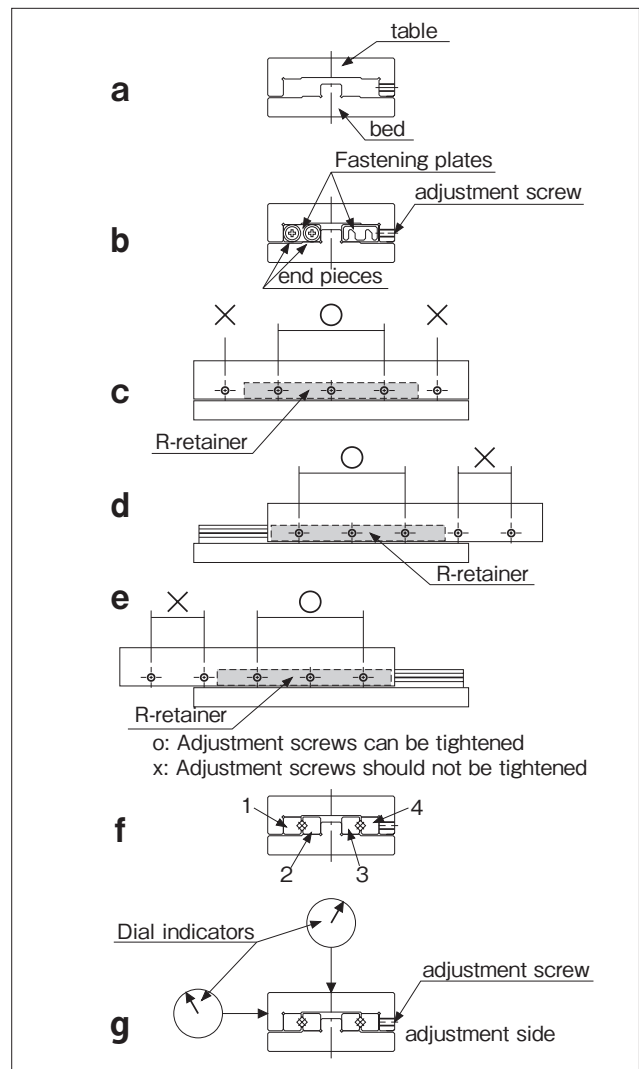


Table 3. Recommended Torque for Adjustment Screws Unit/N·m

Part number	Size of screws	Torque
NV2	M3	0.012
NV3	M4	0.05
NV4	M4	0.08
NV6	M5	0.20
NV9	M6	0.40

SPECIAL MOUNTING BOLT BT TYPE

To mount the Slide Way using its counter bore, use of the BT type of special mounting bolt is recommended.

Table 4. Recommended Torque for Mounting Bolts Unit/N·m

Size of screws	Torque
M3	1.4
M4	3.2
M5	6.6
M6	11.2
M8	27.6

(When using steel alloy bolts)

Figure 11. Special Mounting Bolt

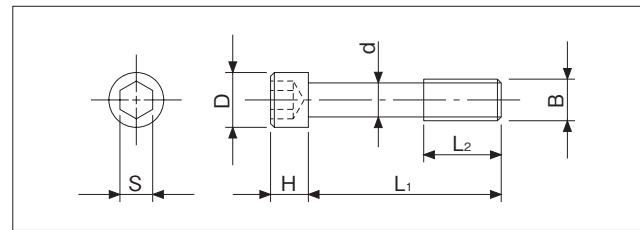


Table 5. Special Mounting Bolt

Part number	B	d mm	D mm	H mm	L ₁ mm	L ₂ mm	S mm	Applicable track rail
BT 3	M3	2.3	5	3	12	5	2.5	NV 3
BT 4	M4	3.1	5.8	4	15	7	3	NV 4
BT 6	M5	3.9	8	5	20	8	4	NV 6
BT 9	M6	4.6	8.5	6	30	12	5	NV 9
BT12	M8	6.25	11.3	8	40	17	6	NV12

PRECAUTIONS FOR USE

Careful Handling:

The NV type is packaged as a set of rails and R-retainers. Do not separate or disassemble until assembly/installation is completed. Dropping this product may cause the rolling elements to make dents in the raceway surface. This will prevent smooth motion and will also affect accuracy. Be sure to handle the product with care.

Stopper:

Exceeding the specified stroke (over-stroke) may cause the raceway surface of the rail to be damaged and the performance of the **STUDROLLER** to drastically deteriorate. Be sure to provide external mechanical stoppers and use the product within the specified allowable stroke.

Adjustment:

Using the product with insufficient accuracy of the mounting surface or before adjusting the preload will cause the motion accuracy of the product to drop and will have a negative influence upon product life and accuracy. Make sure to assemble, install, and adjust the product with care.

Use as a Set:

The accuracy of the rails has been matched within each set. Note that the accuracy may be affected when the rails of different sets are combined.

Operating Temperature:

The product uses resin parts. Avoid using the product in high temperatures; use the product in environments that are lower than 80° C.

Adjustment Screws:

The accuracy and preload of the NVT type Slide Table has been factory-adjusted to the optimal level. Do not touch the adjustment and rail mounting screws.

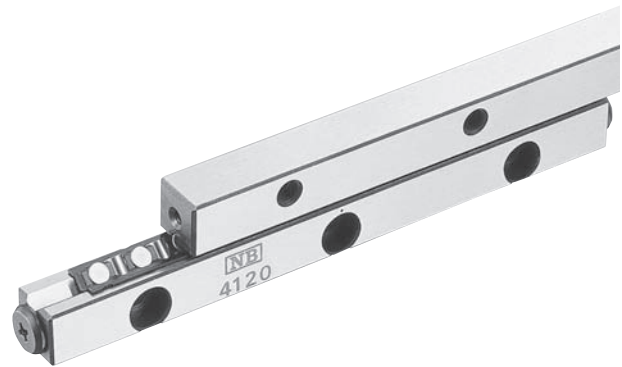
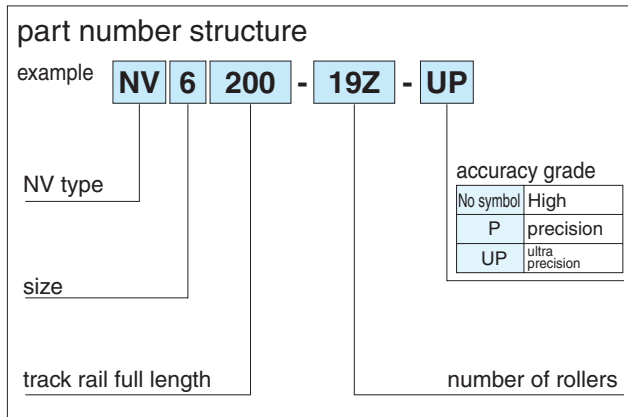
Allowable Load:

The allowable load is the load under which the sum of the elastic deformation of the roller elements and the raceway surface is small on a contact portion where the contact stress of the rolling elements and the rail surface is a maximum, permitting a smooth rolling motion.

Fastening Plates:

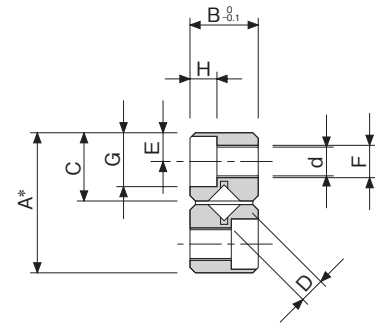
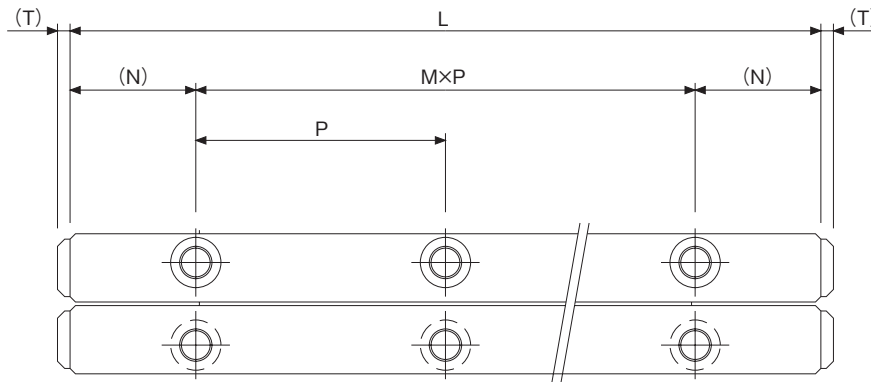
In the NV type, fastening plates are attached at both end faces of the rails to maintain the R-retainer center position prior to assembly. The fastening plates are not required when the NV type is used mounted to a table, bed, or the like; however, when removal of the NV type is necessary such as when it will be reassembled, be sure to return the R-retainer to the proper center position, secure the fastening plates with the end pieces, and then remove the NV type.

NV TYPE



part number	stroke ST mm	roller diameter D mm	number of rollers Z						
				L mm	A mm	B mm	C mm	M × P mm	N mm
NV2030- 5Z	18	2	5	30	12	6	5.7	1 × 15	7.5
NV2045- 9Z	25		9	45				2 × 15	
NV2060-15Z	30		15	60				3 × 15	
NV2075-19Z	40		19	75				4 × 15	
NV2090-23Z	50		23	90				5 × 15	
NV2105-27Z	65		27	105				6 × 15	
NV2120-33Z	70		33	120				7 × 15	
NV2135-37Z	80		37	135				8 × 15	
NV2150-41Z	90		41	150				9 × 15	
NV2165-47Z	95		47	165				10 × 15	
NV2180-51Z	100	3	51	180	18	8	8.65	11 × 15	12.5
NV3050- 9Z	25		9	50				1 × 25	
NV3075-13Z	48		13	75				2 × 25	
NV3100-19Z	60		19	100				3 × 25	
NV3125-23Z	83		23	125				4 × 25	
NV3150-29Z	90		29	150				5 × 25	
NV3175-35Z	103		35	175				6 × 25	
NV3200-41Z	113		41	200				7 × 25	
NV3225-43Z	150		43	225				8 × 25	
NV4080- 9Z	60	4	9	80	22	11	10.65	1 × 40	20
NV4120-17Z	75		17	120				2 × 40	
NV4160-23Z	105		23	160				3 × 40	
NV4200-29Z	130		29	200				4 × 40	
NV4240-37Z	143		37	240				5 × 40	
NV4280-43Z	170		43	280				6 × 40	

The basic static load rating is the value at the center of the stroke.

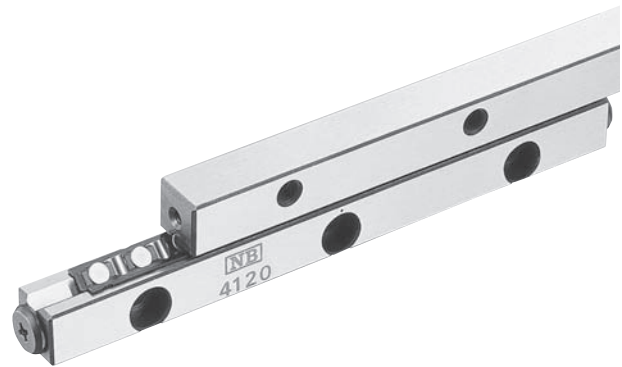
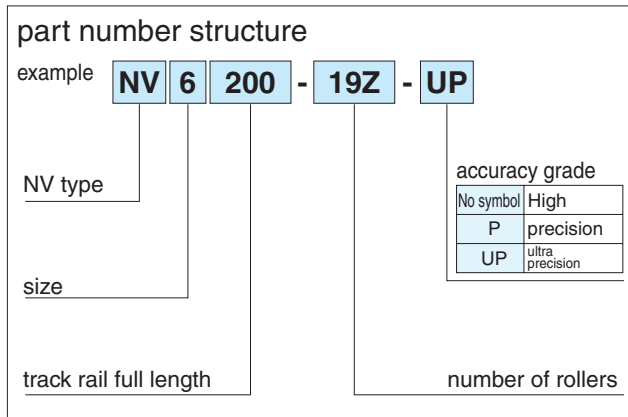


*High grade: A_{0.2} Precision grade (P): A_{0.1} Ultra Precision grade (UP): A_{0.1}
A set consists of 4 rails, 2 R-retainers, and 8 end pieces.

major dimensions						basic load rating		allowable	mass	size
E	F	d	G	H	T	dynamic C N	static Co N	load F N	g	
2.5	M3	2.55	4.4	2	2	1,360	1,520	500	33	2030
						2,330	3,050	1,010	49	2045
						3,990	6,110	2,030	62	2060
						4,740	7,630	2,540	74	2075
						5,460	9,160	3,050	91	2090
						6,160	10,600	3,560	103	2105
						6,830	12,200	4,070	120	2120
						7,490	13,700	4,580	132	2135
						8,130	15,200	5,090	149	2150
						9,370	18,300	6,110	161	2165
3.5	M4	3.3	6	3.1	2	9,970	19,800	6,620	174	2180
						6,150	8,060	2,680	97	3050
						8,440	12,100	4,030	140	3075
						12,500	20,100	6,720	192	3100
						14,400	24,200	8,060	245	3125
						16,300	28,200	9,410	290	3150
						19,800	36,300	12,100	337	3175
						21,500	40,300	13,400	385	3200
4.5	M5	4.3	8	4.2	2	23,200	44,300	14,700	434	3225
						12,100	15,700	5,250	265	4080
						20,700	31,500	10,500	400	4120
						28,500	47,200	15,700	530	4160
						32,100	55,100	18,300	660	4200
						39,000	70,900	23,600	800	4240
						45,600	86,600	28,800	930	4280

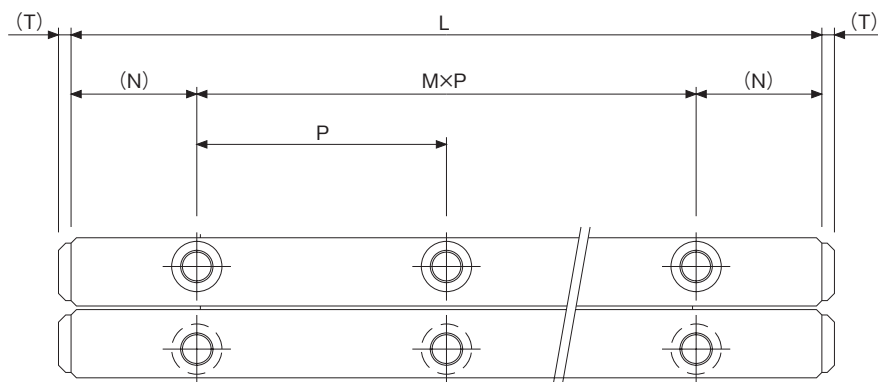
1N ≙ 0.102kgf

NV TYPE



part number	stroke ST mm	roller diameter D mm	number of rollers Z						
				L mm	A mm	B mm	C mm	M × P mm	N mm
NV6100- 9Z	63	6	9	100	31	15	15.15	1 × 50	25
NV6150-15Z	85		15	150				2 × 50	
NV6200-19Z	135		19	200				3 × 50	
NV6250-25Z	158		25	250				4 × 50	
NV6300-31Z	180		31	300				5 × 50	
NV6350-35Z	230		35	350				6 × 50	
NV6400-39Z	275	9	39	400	44	22	21.5	7 × 50	50
NV9200-13Z	120		13	200				1 × 100	
NV9300-21Z	170		21	300				2 × 100	
NV9400-29Z	220		29	400				3 × 100	
NV9500-35Z	300		35	500				4 × 100	
NV12300-15Z	180	12	15	300	58	28	28.5	2 × 100	50
NV12400-21Z	230		21	400				3 × 100	
NV12500-27Z	280		27	500				4 × 100	
NV12600-31Z	380		31	600				5 × 100	

The basic static load rating is the value at the center of the stroke.

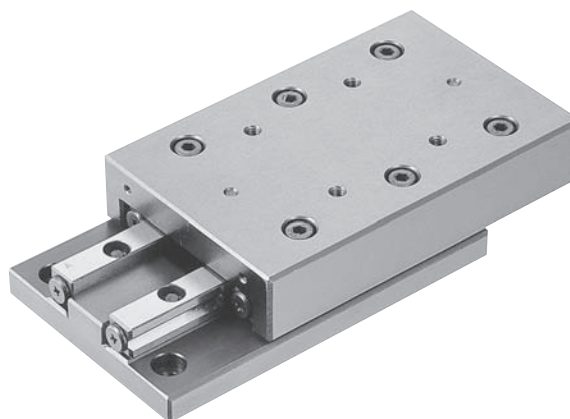
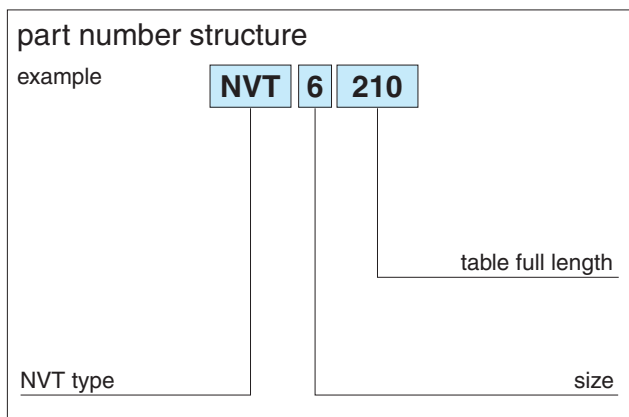


*High grade: A_{0.2} Precision grade (P): A_{0.1} Ultra Precision grade (UP): A_{0.1}
 A set consists of 4 rails, 2 R-retainers, and 8 end pieces.

major dimensions						basic load rating		allowable	mass	size
E	F	d	G	H	T	dynamic C N	static Co N	load F N	g	
6	M6	5.2	9.5	5.2	3	29,600	37,500	12,500	650	6100
						50,900	75,100	25,000	970	6150
						60,600	93,900	31,300	1,300	6200
						69,800	112,000	37,500	1,620	6250
						87,000	150,000	50,000	1,940	6300
						95,000	169,000	56,000	2,360	6350
9	M8	6.8	10.5	6.2	4	104,000	187,000	62,000	2,780	6400
						96,000	128,000	42,000	2,720	9200
						143,000	213,000	71,000	4,080	9300
						186,000	298,000	99,000	5,440	9400
12	M10	8.5	13.5	8.2	4	226,000	384,000	128,000	6,790	9500
						228,000	317,000	105,000	6,770	12300
						271,000	396,000	132,000	9,040	12400
						352,000	555,000	185,000	11,300	12500
						391,000	635,000	211,000	13,560	12600

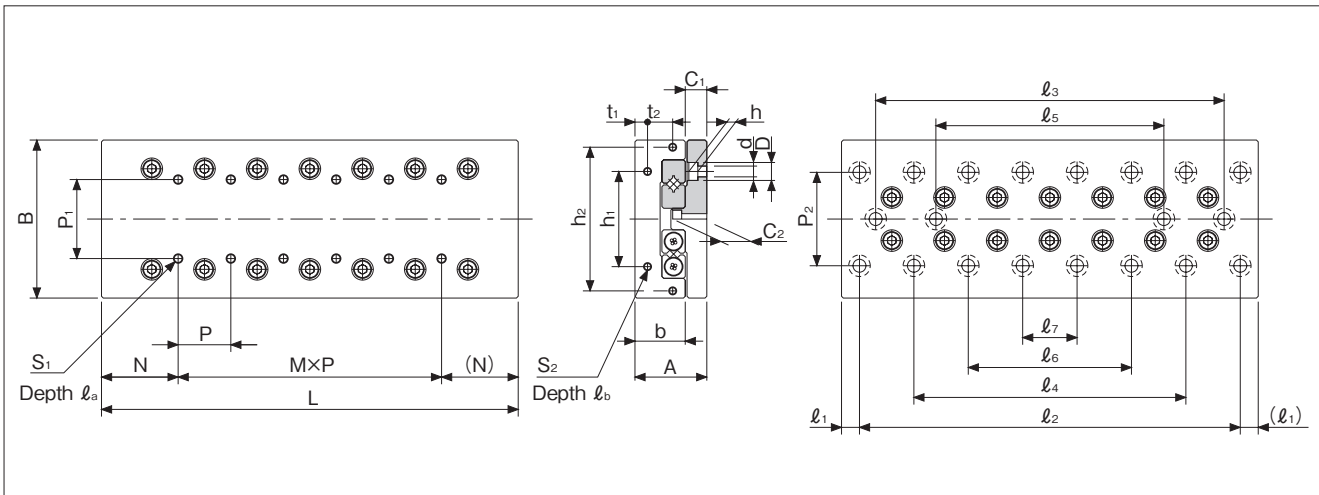
1N ≡ 0.102kgf

NVT TYPE



part number	stroke	dimensions				table-top mounting hole dimensions					table-end mounting hole dimensions						
	ST mm	A mm	B mm	L mm	b mm	P ₁ mm	S ₁	ℓ _a mm	N mm	M × P mm	h ₁ mm	h ₂ mm	t ₁ mm	t ₂ mm	S ₂	ℓ _b mm	P ₂ mm
NVT2035	18	21 ± 0.1	40 ^{+0.2 -0.4}	35	14	15	M3	6	17.5	-	16	—	3.4	—	M2	6	30
NVT2050	30			50						1 × 15							
NVT2065	40			65						2 × 15							
NVT2080	50			80						3 × 15							
NTV2095	60			95						4 × 15							
NTV2110	70			110						5 × 15							
NVT2125	80			125						6 × 15							
NVT2140	90			140						7 × 15							
NVT2155	100			155						8 × 15							
NVT2170	110			170						9 × 15							
NVT2185	120			185						10 × 15							
NVT3055	30	28 ± 0.1	60 ± 0.1	55	18.5	25	M4	8	27.5	-	40	—	5.5	—	M3	6	40
NVT3080	45			80						1 × 25							
NVT3105	60			105						2 × 25							
NVT3130	75			130						3 × 25							
NVT3155	90			155						4 × 25							
NVT3180	105			180						5 × 25							
NVT3205	130			205						6 × 25							
NVT3230	155			230						7 × 25							
NVT4085	50			85						-							
NVT4125	75			125						1 × 40							
NVT4165	105	35 ± 0.1	80 ± 0.1	165	24	40	M5	10	42.5	2 × 40	55	—	6.5	—	M3	6	55
NVT4205	130			205						3 × 40							
NVT4245	155			245						4 × 40							
NVT4285	185			285						5 × 40							

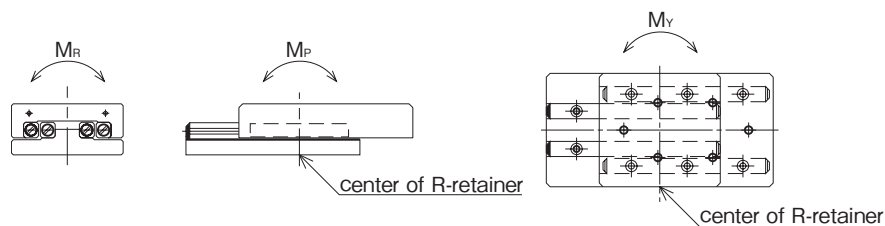
The basic static load rating is the value at the center of the stroke.



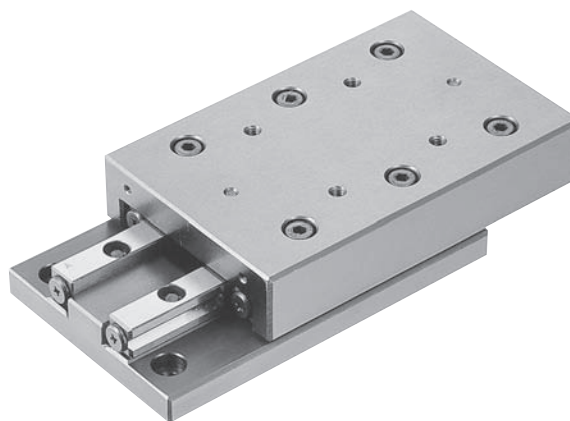
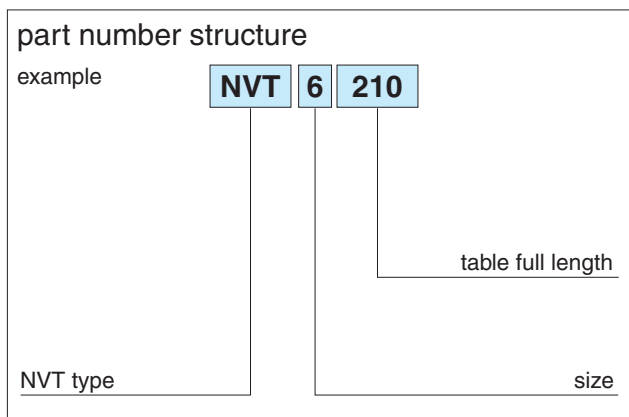
bed-surface mounting hole dimensions										motion accuracy*		basic load rating		allowable load	allowable static moment			mass	size
d × D × h mm	C ₁ mm	C ₂ mm	l ₁ mm	l ₂ mm	l ₃ mm	l ₄ mm	l ₅ mm	l ₆ mm	l ₇ mm	T μm	S μm	dynamic C N	static Co N	F N	M _P N · m	M _V N · m	M _R N · m	g	
35×6.5×3.5	6.5	10.9	5	25	—	—	—	—	—	2	4	1,360	1,520	500	10.1	8.8	13.7	200	2035
				40	—	—	—	—	—	2	4	2,330	3,050	1,010	19.0	18.7	21.2	287	2050
				55	—	—	—	—	—	2	5	3,190	4,580	1,520	36	35	35	377	2065
				70	—	40	—	—	—	2	5	3,990	6,110	2,030	53	53	40	455	2080
				85	—	55	—	—	—	2	5	4,740	7,630	2,540	80	79	53	550	2095
				100	—	70	—	—	—	3	6	5,460	9,160	3,050	104	106	58	640	2110
				115	—	85	—	—	—	3	6	6,160	10,600	3,560	130	135	63	730	2125
				130	—	100	—	70	—	3	6	6,830	12,200	4,070	171	176	77	810	2140
				145	—	115	—	85	—	3	6	7,490	13,700	4,580	217	220	91	890	2155
				160	—	130	—	100	—	3	7	8,130	15,200	5,090	276	289	96	980	2170
				175	—	145	—	115	85	3	7	8,750	16,800	5,600	318	338	101	1,070	2185
4.5×8×4.5	9	15	10	35	—	—	—	—	—	2	5	6,150	8,060	2,680	22.9	36	39	643	3055
				60	—	—	—	—	—	2	5	8,440	12,100	4,030	125	119	152	960	3080
				85	—	—	—	—	—	3	6	10,500	16,100	5,370	188	185	179	1,260	3105
				110	—	—	—	—	—	3	6	14,400	24,200	8,060	301	319	205	1,580	3130
				135	85	—	—	—	—	3	6	16,300	28,200	9,410	425	438	262	1,860	3155
				160	110	—	—	—	—	3	7	18,100	32,200	10,700	628	634	345	2,160	3180
				185	135	85	—	—	—	3	7	19,800	36,300	12,100	760	778	371	2,460	3205
				210	160	110	—	—	—	3	7	21,500	40,300	13,400	903	934	397	2,780	3230
5.5×10×5.4	10.5	18	10	65	—	—	—	—	—	2	5	12,100	15,700	5,250	155	146	274	1,710	4085
				105	—	—	—	—	—	3	6	20,700	31,500	10,500	328	356	352	2,520	4125
				145	—	—	—	—	—	3	7	24,700	39,300	13,100	651	657	587	3,320	4165
				185	105	—	—	—	—	3	7	32,100	55,100	18,300	1,060	1,090	744	4,130	4205
				225	145	—	—	—	—	3	7	35,600	63,000	21,000	1,570	1,580	980	4,930	4245
				265	185	—	—	—	—	3	7	42,400	78,700	26,200	2,090	2,170	1,050	5,730	4285

* For accuracy T and S, see Page 3

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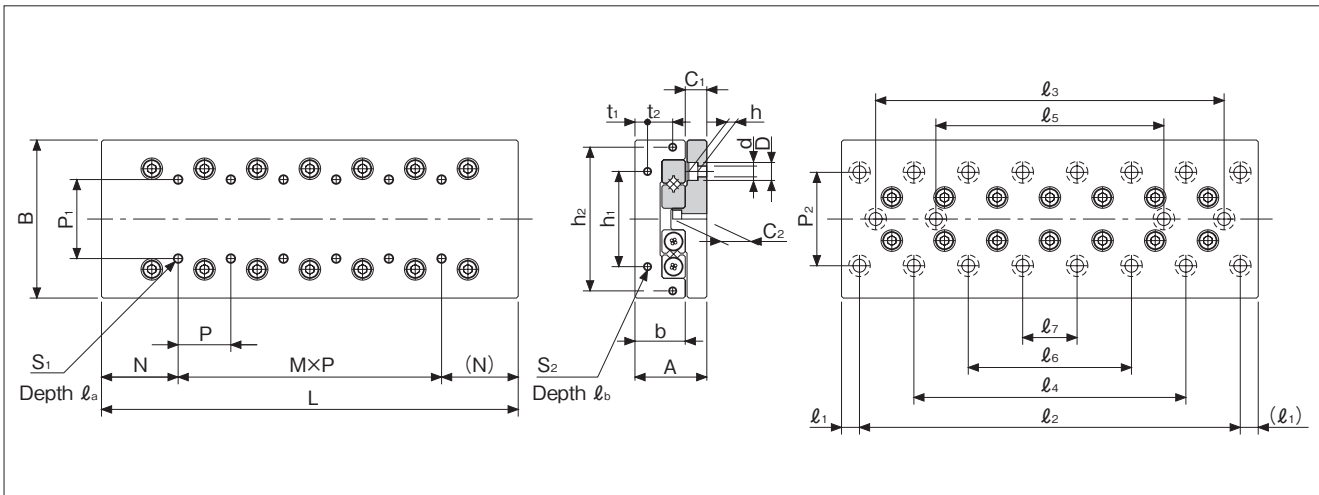


NVT TYPE



part number	stroke	dimensions				table-top mounting-hole dimensions					table-end mounting hole dimensions						
	ST mm	A mm	B mm	L mm	b mm	P ₁ mm	S ₁	ℓ _a mm	N mm	M × P mm	h ₁ mm	h ₂ mm	t ₁ mm	t ₂ mm	S ₂	ℓ _b mm	P ₂ mm
NVT6110	60	45 ± 0.1	100 ± 0.1	110	31	50	M6	12	55	—	60	92	8	15	M4	8	60
NVT6160	95			160						1 × 50							
NVT6210	130			210						2 × 50							
NVT6260	165			260						3 × 50							
NVT6310	200			310						4 × 50							
NVT6360	235			360						5 × 50							
NVT6410	265			410						6 × 50							
NVT9210	130	60 ± 0.1	145 ± 0.1	210	43	85	M8	16	105	—	90	135	11	20	M4	8	90
NVT9310	180			310						1 × 100							
NVT9410	220			410						2 × 100							
NVT9510	300			510						3 × 100							

The basic static load rating is the value at the center of the stroke.



bed-surface mounting hole dimensions										motion accuracy*		basic load rating		allowable load	allowable static moment			mass	size
d × D × h mm	C ₁ mm	C ₂ mm	l ₁ mm	l ₂ mm	l ₃ mm	l ₄ mm	l ₅ mm	l ₆ mm	l ₇ mm	T μm	S μm	dynamic C N	static Co N	F N	M _P N·m	M _Y N·m	M _R N·m	g	
7×11.5×7	13	23	10	90	—	—	—	—	—	3	6	29,600	37,500	12,500	542	506	782	3,300	6110
				140	—	—	—	—	—	3	6	40,700	56,300	18,700	947	932	1,020	4,850	6160
				190	90	—	—	—	—	3	7	50,900	75,100	25,000	1,640	1,590	1,440	6,310	6210
				240	140	—	—	—	—	3	7	69,800	112,000	37,500	2,700	2,780	1,680	7,790	6260
				290	190	—	—	—	—	3	7	78,800	131,000	43,800	3,780	3,830	2,100	9,260	6310
				340	240	140	—	—	—	4	8	87,400	150,000	50,100	5,600	5,590	2,770	10,900	6360
				390	290	190	—	—	—	4	8	104,000	187,000	62,600	7,480	7,670	3,000	12,460	6410
9×14×9	16	29	55	100	—	—	—	—	—	3	6	96,000	128,000	42,600	1,720	2,120	2,290	12,550	9210
				200	—	—	—	—	—	3	6	143,000	213,000	71,100	6,560	6,580	5,370	18,000	9310
				300	100	—	—	—	—	3	7	186,000	298,000	99,500	12,700	12,700	7,820	24,010	9410
				400	200	—	—	—	—	3	7	206,000	341,000	113,000	18,700	18,700	10,200	30,100	9510

* For accuracy T and S, see Page 3

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