



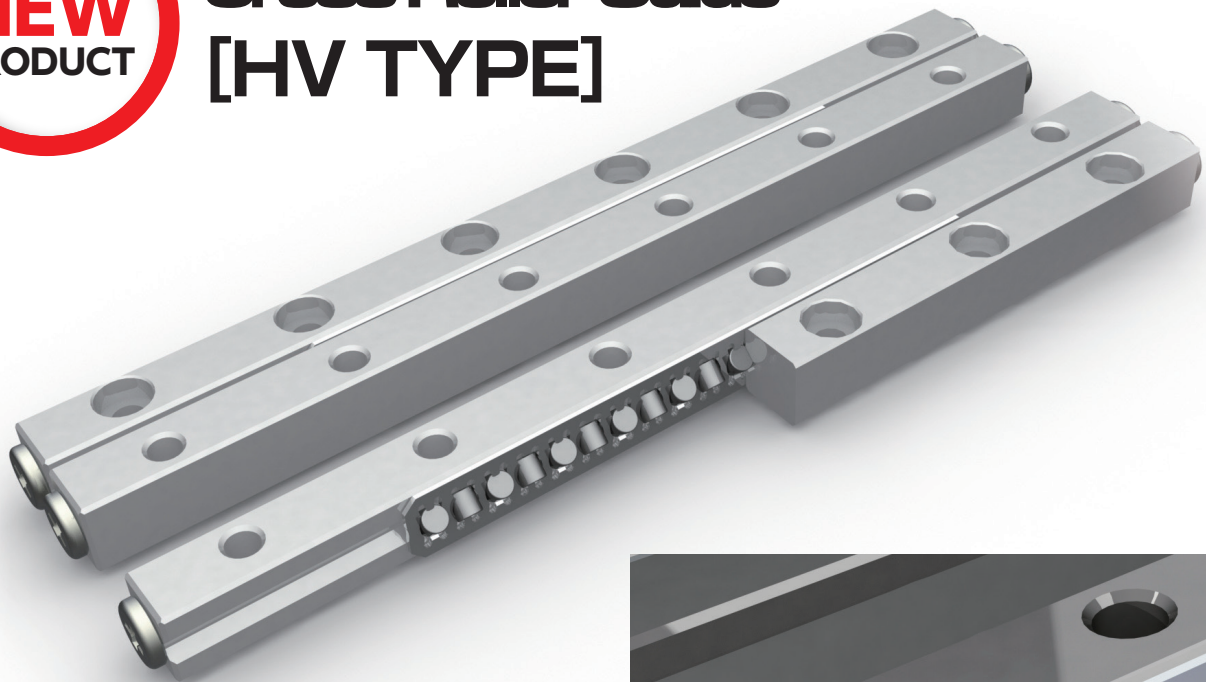
NIPPON BEARING

SLIDE WAY

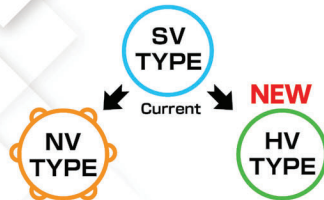
New Type For Compact Applications



**Cross Roller Guide
[HV TYPE]**



NEW PRODUCT
SLIDE WAY Cross Roller Guide [HV TYPE]



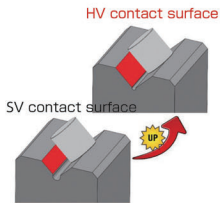
Non-slip! STUDDOLLER system **Major Upgrade!**

[HV TYPE] Major upgrade from current SV Type

Redesign ①

•Extended contact length between rollers and raceway.

Size	Difference
#2	x1.3
#3	x1.6
#4	x1.5

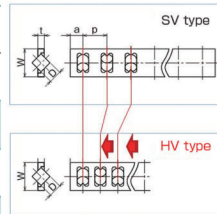


Surface extension increases roller contact and generates lower surface pressure.

Redesign ②

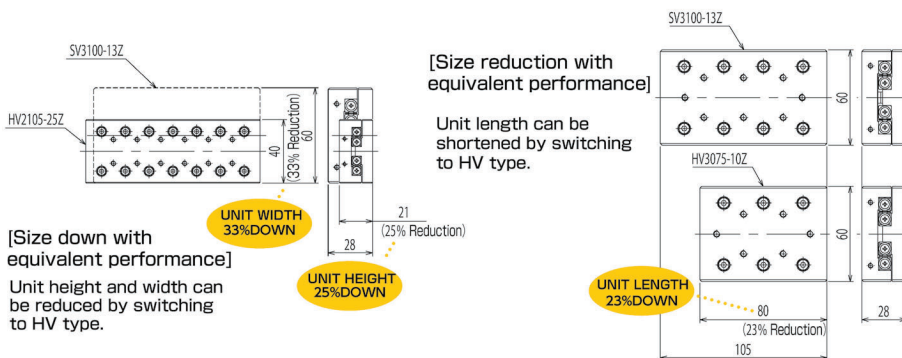
•Narrowed roller pitch.

Size	Roller Pitch [mm]	
	SV	HV
#2	4	3
#3	5	4.2
#4	7	5.2



Increase in number of rollers by narrowing the roller pitch.

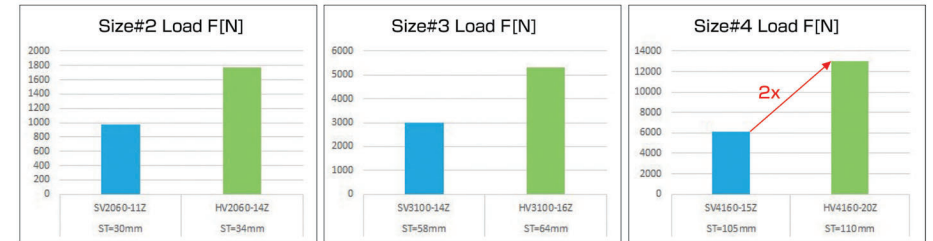
- ◆ Mounting is completely compatible with SV Type.
- ◆ Improve durability of the installed equipment by simple replacement.
- ◆ Offers unit size reduction while keeping the equivalent performance.



Compared to current SV Type;
2x Allowable Load
7x Rated Life Distance Upgrade!

(Size #4 as reference)

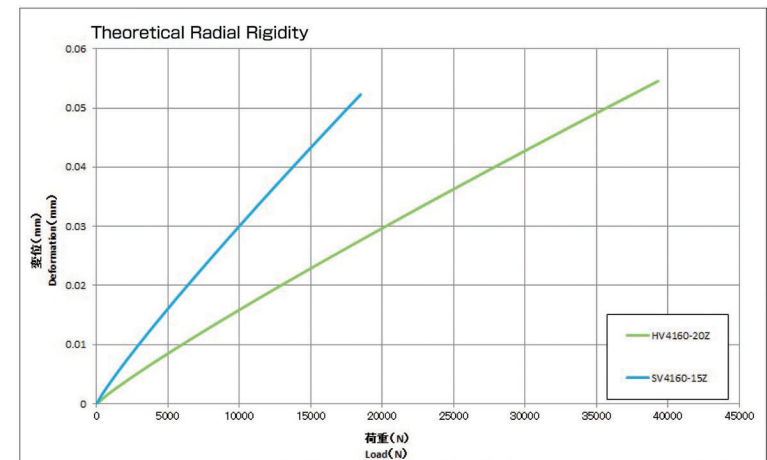
■ Allowable Load



■ Rated Life *1000[N] Load



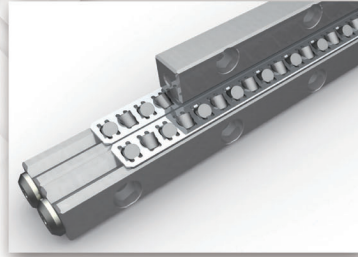
■ Rigidity



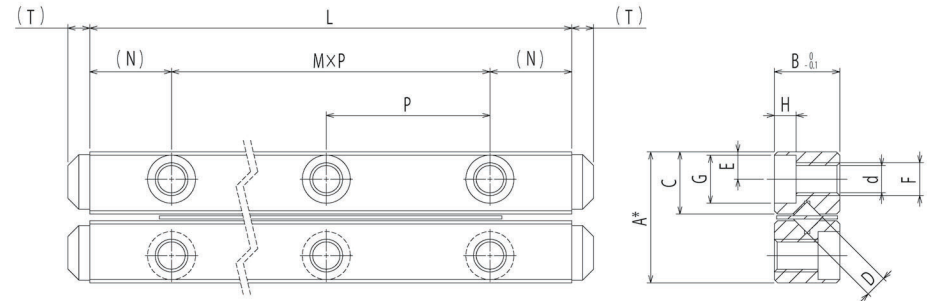
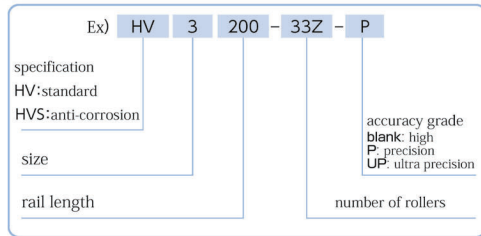
*This is a calculated theoretical value and actual value may vary

HV TYPE

- HV2 / HV3 -



part number structure



High grade: A-0.2 Precision grade (P): A-0.1 Ultra Precision grade (UP): A-0.1
 One set consists of 4 rails, 2 roller cages, and 8 end pieces.

part number		stroke	roller diameter	number of rollers	L	A	B	C	M×P				
standard	anti-corrosion	ST mm	D mm	Z	mm	mm	mm	mm	mm				
HV 2030- 6Z	HVS 2030- 6Z	22	2	6	30	12	6	5.7	1 × 15				
2045-10Z	2045-10Z	28		10	45				2 × 15				
2060-14Z	2060-14Z	34		14	60				3 × 15				
2075-17Z	2075-17Z	46		17	75				4 × 15				
2090-21Z	2090-21Z	52		21	90				5 × 15				
2105-24Z	2105-24Z	64		24	105				6 × 15				
2120-28Z	2120-28Z	70		28	120				7 × 15				
2135-30Z	2135-30Z	88		30	135				8 × 15				
2150-34Z	2150-34Z	94		34	150				9 × 15				
2165-38Z	2165-38Z	100		38	165				10 × 15				
2180-43Z	2180-43Z	100		43	180				11 × 15				
HV 3050- 8Z	HVS 3050- 8Z	31		3	8				50	18	8	8.65	1 × 25
3075-11Z	3075-11Z	56			11				75				2 × 25
3100-16Z	3100-16Z	64	16		100	3 × 25							
3125-20Z	3125-20Z	80	20		125	4 × 25							
3150-25Z	3150-25Z	88	25		150	5 × 25							
3175-28Z	3175-28Z	113	28		175	6 × 25							
3200-33Z	3200-33Z	121	33		200	7 × 25							
3225-37Z	3225-37Z	137	37		225	8 × 25							
3250-42Z	3250-42Z	145	42		250	9 × 25							
3275-45Z	3275-45Z	170	45		275	10 × 25							
3300-50Z	3300-50Z	178	50		300	11 × 25							
3325-53Z	3325-53Z	203	53		325	12 × 25							
3350-58Z	3350-58Z	211	58		350	13 × 25							

*Please contact NB for details

major dimensions							basic load rating	allowable load	mass	size	
N	E	F	d	G	H	T	dynamic	static	(one set)		
mm	mm		mm	mm	mm	mm	C	C ₀	F	g	
							N	N	N		
7.5	2.5	M3	2.55	4.4	2	1.2	1.850	2.290	763	30	2030
							2.760	3.810	1,270	44	2045
							3.600	5.340	1,780	59	2060
							4.000	6.110	2,030	73	2075
							4.760	7.630	2,540	87	2090
							5.490	9.160	3,050	101	2105
							6.190	10.600	3,560	116	2120
							6.530	11.400	3,810	130	2135
							7.200	12.900	4,320	144	2150
							7.850	14.500	4,830	158	2165
							8.490	16.000	5,340	173	2180
							6.150	8.060	2,680	102	3050
							7.330	10.000	3,360	150	3075
10.600	16.100	5,370	200	3100							
12.600	20.100	6,720	249	3125							
14.500	24.200	8,060	298	3150							
16.400	28.200	9,410	346	3175							
18.200	32.200	10,700	396	3200							
19.900	36.300	12,100	445	3225							
22.500	42.300	14,100	494	3250							
23.300	44.300	14,700	542	3275							
25.700	50.400	16,800	592	3300							
26.500	52.400	17,400	640	3325							
28.900	58.400	19,400	690	3350							

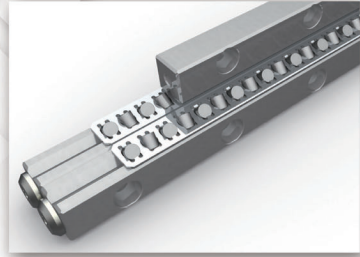
1N≒0.102kgf

Maximum Rail Length (standard type only)

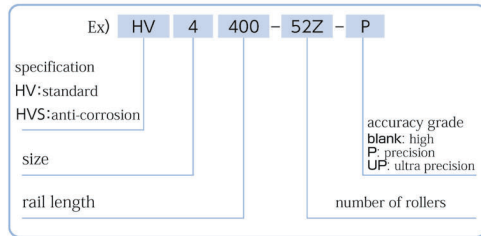
part number	Max. Length
HV2	200mm
HV3	450mm

HV TYPE

- HV4 -

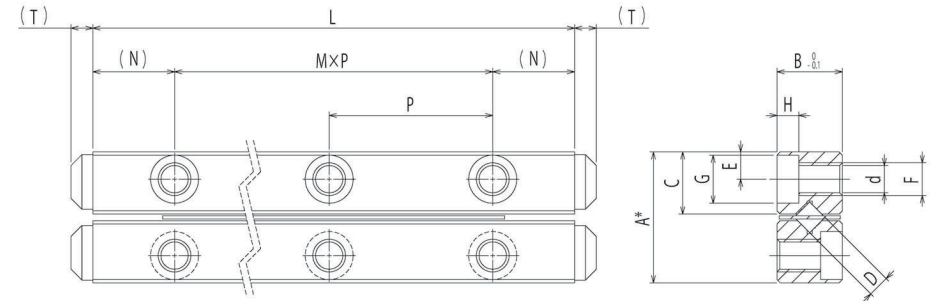


part number structure



part number		stroke	roller diameter	number of rollers	L	A	B	C	M×P
standard	anti-corrosion	ST mm	D mm	Z	mm	mm	mm	mm	mm
HV 4080-9Z	HVS 4080-9Z	64	4	9	80	22	11	10.65	1×40
4120-15Z	4120-15Z	82		15	120				2×40
4160-20Z	4160-20Z	110		20	160				3×40
4200-25Z	4200-25Z	138		25	200				4×40
4240-31Z	4240-31Z	155		31	240				5×40
4280-36Z	4280-36Z	183		36	280				6×40
4320-42Z	4320-42Z	201		42	320				7×40
4360-47Z	4360-47Z	229		47	360				8×40
4400-52Z	4400-52Z	257		52	400				9×40
4440-58Z	4440-58Z	274		58	440				10×40
4480-63Z	4480-63Z	302		63	480				11×40

*Please contact NB for details



High grade: A-0.2 Precision grade (P): A-0.1 Ultra Precision grade (UP): A-0.1
 One set consists of 4 rails, 2 roller cages, and 8 end pieces.

major dimensions							basic load rating	static	allowable load	mass	size
N	E	F	d	G	H	T	dynamic C	Co	F	(one set)	
mm	mm	mm	mm	mm	mm	mm	N	N	N	g	
20	4.5	M5	4.3	8	4.2	2	12,100	15,700	5,250	270	4080
							18,700	27,500	9,190	404	4120
							24,800	39,300	13,100	536	4160
							28,600	47,200	15,700	669	4200
							34,000	59,000	19,600	802	4240
							39,200	70,900	23,600	935	4280
							44,200	82,700	27,500	1,070	4320
							47,500	90,600	30,200	1,210	4360
							52,200	102,000	34,100	1,340	4400
							56,900	114,000	38,000	1,470	4440
							59,900	122,000	40,700	1,600	4480

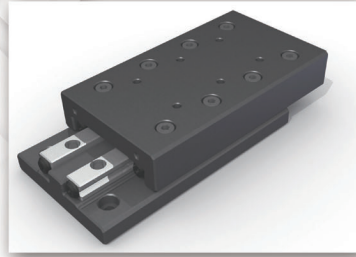
1N≒0.102kgf

Maximum Rail Length (standard type only)

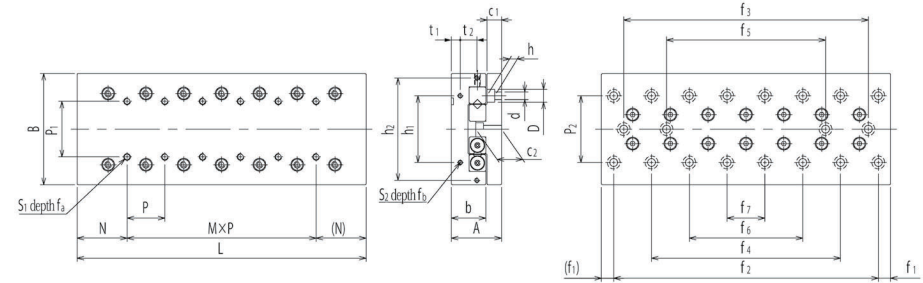
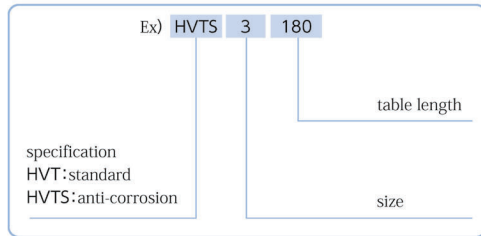
part number	Max. Length
HV4	700mm

HVT TYPE

- HVT2 / HVT3 -



part number structure



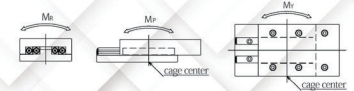
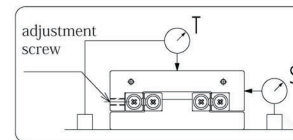
part number	stroke	major dimensions				table-top mounting dimensions				table-end mounting dimensions									
		ST	A	B	L	b	P1	S1	fa	N	MxP	h1	h2	t1	t2	S2	fb		
standard	anti-corrosion	mm	Tol. mm	Tol. mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm		
HVT 2035	HVTS 2035	18			35														
2050	2050	30			50					1 x 15									
2065	2065	40			65					2 x 15									
2080	2080	50			80					3 x 15									
2095	2095	60			95					4 x 15									
2110	2110	70	21	±0.1	110	40	-0.2	14	15	M3	6	17.5	5 x 15	16	-	3.4	-	M2	6
2125	2125	80			125		-0.4						6 x 15						
2140	2140	90			140								7 x 15						
2155	2155	100			155								8 x 15						
2170	2170	110			170								9 x 15						
2185	2185	120			185								10 x 15						
HVT 3055	HVTS 3055	30			55														
3080	3080	45			80								1 x 25						
3105	3105	60			105								2 x 25						
3130	3130	75			130								3 x 25						
3155	3155	90			155								4 x 25						
3180	3180	105	28	±0.1	180	18.5	±0.1	18.5	25	M4	8	27.5	5 x 25	40	-	5.5	-	M3	6
3205	3205	130			205								6 x 25						
3230	3230	155			230								7 x 25						
3255	3255	180			255								8 x 25						
3280	3280	205			280								9 x 25						
3305	3305	230			305								10 x 25						

※Please contact NB for details

P2	d×D×h	bed-surface mounting dimensions							accuracy (deviation)		basic load rating		allowable static moment				mass		size				
		C1	C2	f1	f2	f3	f4	f5	f6	f7	T	S	C	C0	F	MP	MY	MR		HVT	HVTS		
mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	N	N	N	N·m	N·m	N·m	g	g
30	3.5×6.5×3.5	6.5	10.9	5	25	-	-	-	-	2	4	1,850	2,290	763	6.87	7.86	20.6	288	200	95	2035		
					40	-	-	-	-	2	4	2,320	3,050	1,010	18.7	16.7	27.4	288	138	2050			
					55	-	-	-	-	2	5	3,190	4,580	1,520	26.7	28.9	41.2	377	180	2065			
					70	-	40	-	-	-	2	5	4,000	6,110	2,030	47.5	50.4	54.9	461	221	2080		
					85	-	55	-	-	-	-	2	5	4,380	6,870	2,290	74.2	70.3	61.8	550	264	2095	
					100	-	70	-	-	-	-	3	6	5,130	8,400	2,800	89.8	93.6	75.6	639	307	2110	
					115	-	85	-	-	-	-	3	6	5,840	9,930	3,310	125	129	89.3	728	349	2125	
					130	-	100	-	70	-	-	3	6	6,190	10,600	3,560	166	160	96.2	812	390	2140	
					145	-	115	-	85	-	-	3	6	6,870	12,200	4,070	189	195	109	901	433	2155	
					160	-	130	-	100	-	-	3	7	7,530	13,700	4,580	239	246	123	987	475	2170	
					175	-	145	-	115	85	3	7	7,850	14,500	4,830	296	288	130	1,080	517	2185		
					35	-	-	-	-	-	-	2	5	6,150	8,060	2,680	43.7	49.6	112	655	309	3055	
					60	-	-	-	-	-	-	2	5	8,460	12,100	4,030	99.0	107	169	960	453	3080	
					85	-	-	-	-	-	-	3	6	10,600	16,100	5,370	175	186	225	1,270	596	3105	
110	-	-	-	-	-	-	3	6	12,600	20,100	6,720	274	287	282	1,570	740	3130						
135	85	-	-	-	-	-	3	6	14,500	24,200	8,060	395	410	338	1,870	881	3155						
160	110	-	-	-	-	-	3	7	16,400	28,200	9,410	537	554	395	2,180	1,030	3180						
185	135	85	-	-	-	-	3	7	17,300	30,200	10,000	701	677	423	2,470	1,170	3205						
210	160	110	-	-	-	-	3	7	19,000	34,200	11,400	791	812	480	2,780	1,310	3230						
235	185	135	-	-	-	-	3	7	19,900	36,300	12,100	988	959	508	3,080	1,460	3255						
260	210	160	110	-	-	-	3	7	21,600	40,300	13,400	1,090	1,110	564	3,380	1,600	3280						
285	235	185	135	-	-	-	3	7	22,500	42,300	14,100	1,320	1,290	592	3,690	1,740	3305						

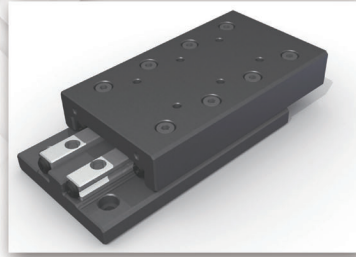
1N≒0.102kgf 1N·m≒0.102kgf·m

accuracy measurement method

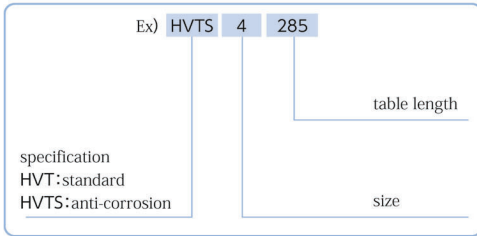


HVT TYPE

- HVT4 -

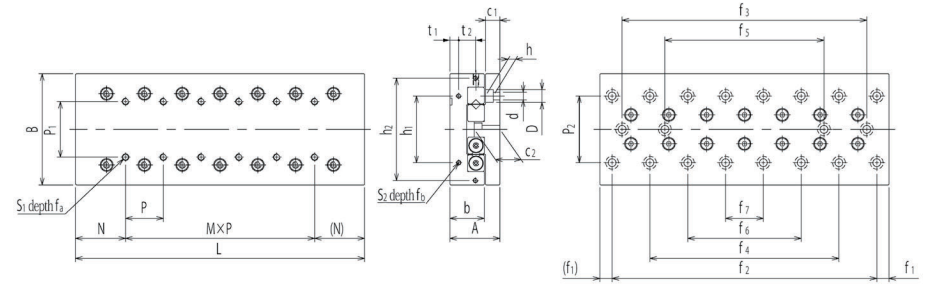


part number structure



part number		stoke	major dimensions				table-top mounting dimensions					table-end mounting dimensions							
standard	anti-corrosion		ST	A	B	L	b	P1	S1	f _a	N	M×P	h1	h2	t1	t2	S2	f _b	
		mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	
HVT 4085	HVTS 4085	50	35	±0.1	80	±0.1	85	24	40	M5	10	42.5	55	-	6.5	-	M3	6	
4125	4125	75					125												1×40
4165	4165	105					165												2×40
4205	4205	130					205												3×40
4245	4245	155					245												4×40
4285	4285	185					285												5×40
4325	4325	210					325												6×40
4365	4365	235					365												7×40
4405	4405	265					405												8×40

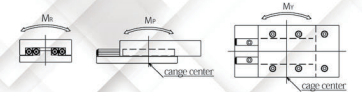
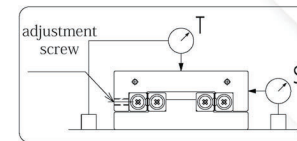
※Please contact NB for details



bed-surface mounting dimensions													accuracy (deviation)	basic load rating dynamic	static	allowable load	allowable static moment			mass		size	
P2	d×D×h	c1	c2	f1	f2	f3	f4	f5	f6	f7	f8	f9					T	S	C	C0	F		MP
mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	μm	μm	N	N	N	N·m	N·m	N·m	g	g	
55	5.5×10×5.4	10.5	18	10	65	-	-	-	-	2	5	14,400	19,600	6,560	167	183	393	1,700	791	4085			
					105	-	-	-	3	6	18,700	27,500	9,190	425	397	551	2,510	1,170	4125				
					145	-	-	-	3	7	24,800	39,300	13,100	664	695	787	3,330	1,550	4165				
					185	105	-	-	3	7	28,600	47,200	15,700	1,120	1,070	945	4,130	1,930	4205				
					225	145	-	-	3	7	34,000	59,000	19,600	1,690	1,630	1,180	4,940	2,310	4245				
					265	185	-	-	3	7	37,500	66,900	22,300	2,140	2,080	1,330	5,750	2,690	4285				
					305	225	145	-	4	8	42,600	78,700	26,200	2,910	2,840	1,570	6,550	3,060	4325				
					345	265	185	-	4	8	47,500	90,600	30,200	3,490	3,560	1,810	7,360	3,440	4365				
					385	305	225	-	4	8	50,600	98,400	32,800	4,460	4,370	1,960	8,170	3,820	4405				

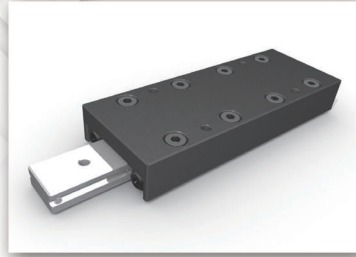
1N≒0.102kgf 1N·m≒0.102kgf·m

accuracy measurement method

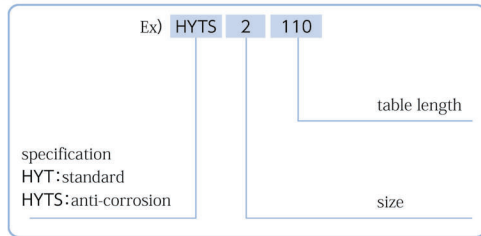


HYT TYPE

- HYT2 / HYT3 -

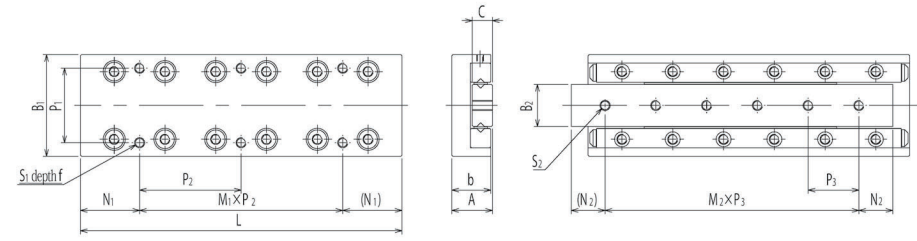


part number structure



part number		stroke ST mm	major dimensions						table-top mounting dimensions																
standard	anti-corrosion		A mm	Tol. mm	B1 mm	Tol. mm	L mm	b mm	B2 mm	c mm	P1 mm	S1	f mm	N1 mm	M1×P2 mm										
HYT 2035	HYTS 2035	18	12	±0.1	30	±0.1	35	11.5	12.4	6	22	M3	5	3.5	1×28										
2050	2050	30					50							3.5	1×43										
2065	2065	40					65							17.5	1×30										
2080	2080	50					80							17.5	1×45										
2095	2095	60					95							17.5	2×30										
2110	2110	70					110							32.5	1×45										
2125	2125	80					125							17.5	2×45										
HYT 3055	HYTS 3055	30					16							±0.1	40	±0.1	55	15.5	16.7	8	30	M4	7	7.5	1×40
3080	3080	45															80							7.5	1×65
3105	3105	60															105							27.5	1×50
3130	3130	75	130	27.5	1×75																				
3155	3155	90	155	27.5	2×50																				
3180	3180	105	180	52.5	1×75																				
3205	3205	130	205	27.5	2×75																				

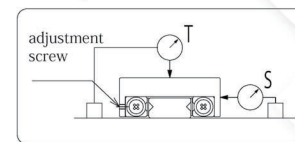
※Please contact NB for details.



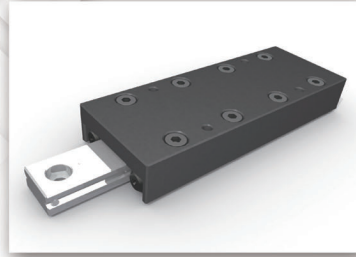
S2	bed-surface mount dimensions		accuracy (deviation)		basic load rating		allowable load F N	allowable static moment			mass g	size
	N2 mm	M2×P3 mm	T μm	S μm	C N	C0 N		MP N·m	MY N·m	MR N·m		
M3	7.5	1×20	2	4	1,850	2,290	763	6.87	7.86	14.8	82	2035
	10	2×15	2	4	2,320	3,050	1,010	18.7	16.7	19.8	119	2050
	10	3×15	2	5	3,190	4,580	1,520	26.7	28.9	29.7	155	2065
	10	4×15	2	5	4,000	6,110	2,030	47.5	50.4	39.7	191	2080
	10	5×15	2	5	4,380	6,870	2,290	74.2	70.3	44.6	227	2095
	10	6×15	2	5	5,130	8,400	2,800	89.8	93.6	54.6	264	2110
	10	7×15	2	5	5,840	9,930	3,310	125	129	64.5	300	2125
M4	10	1×35	2	5	6,150	8,060	2,680	43.7	49.6	70.1	240	3055
	15	2×25	2	5	8,460	12,100	4,030	99.0	107	105	351	3080
	15	3×25	3	5	10,600	16,100	5,370	175	186	140	463	3105
	15	4×25	3	5	12,600	20,100	6,720	274	287	175	574	3130
	15	5×25	3	5	14,500	24,200	8,060	395	410	210	685	3155
	15	6×25	3	5	16,400	28,200	9,410	537	554	245	797	3180
	15	7×25	3	5	17,300	30,200	10,000	701	677	263	906	3205

1N≒0.102kgf 1N·m≒0.102kgf·m

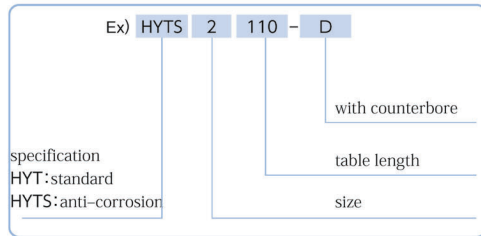
Accuracy measurement method



HYT-D TYPE

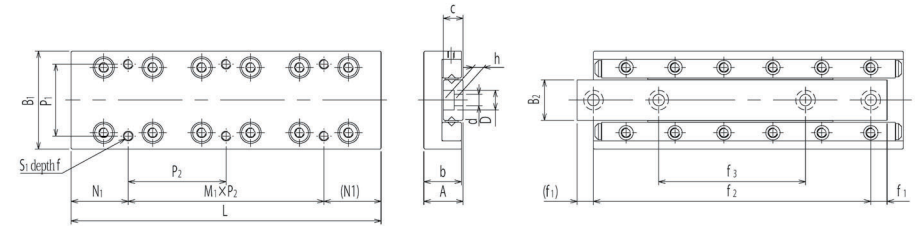


part number structure



part number		stroke ST mm	major dimensions							table-top mounting dimensions						
standard	anti-corrosion		A mm	Tol. mm	B1 mm	Tol. mm	L mm	b mm	B2 mm	c mm	P1 mm	S1 mm	f mm	N1 mm	M1×P2 mm	
HYT 2035-D	HYTS 2035-D	18	12	±0.1	30	±0.1	35	11.5	12.4	6	22	M3	5	3.5	1×28	
2050-D	2050-D	30					50							17.5	1×30	
2065-D	2065-D	40					65							17.5	1×30	
2080-D	2080-D	50					80							17.5	1×45	
2095-D	2095-D	60					95							17.5	2×30	
2110-D	2110-D	70					110							32.5	1×45	
2125-D	2125-D	80					125							17.5	2×45	
HYT 3055-D	HYTS 3055-D	30	16	±0.1	40	±0.1	55	15.5	16.7	8	30	M4	7	7.5	1×40	
3080-D	3080-D	45					80							7.5	1×65	
3105-D	3105-D	60					105							27.5	1×50	
3130-D	3130-D	75					130							27.5	1×75	
3155-D	3155-D	90					155							27.5	2×50	
3180-D	3180-D	105					180							52.5	1×75	
3205-D	3205-D	130					205							27.5	2×75	

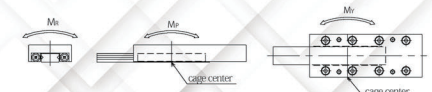
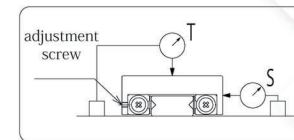
※Please contact NB for details.



d×D×h mm	bed-surface mounting dimensions			accuracy (deviation)		basic load rating		allowable load F N	allowable static moment			mass g	size
	f1 mm	f2 mm	f3 mm	T μm	S μm	C N	Co N		MP N·m	MY N·m	MR N·m		
3.5 × 6 × 3.3	5	25	-	2	4	1,850	2,290	763	6.87	7.86	14.8	81	2035
	7.5	35	-	2	4	2,320	3,050	1,010	18.7	16.7	19.8	117	2050
	5	55	33	2	5	3,190	4,580	1,520	26.7	28.9	29.7	152	2065
	5	70	40	2	5	4,000	6,110	2,030	47.5	50.4	39.7	189	2080
	5	85	45	2	5	4,380	6,870	2,290	74.2	70.3	44.6	225	2095
	7.5	95	50	2	5	5,130	8,400	2,800	89.8	93.6	54.6	262	2110
	7.5	110	55	2	5	5,840	9,930	3,310	125	129	64.5	299	2125
4.5 × 7.5 × 4.3	7.5	40	-	2	5	6,150	8,060	2,680	43.7	49.6	70.1	238	3055
	6	68	43	2	5	8,460	12,100	4,030	99.0	107	105	345	3080
	7.5	90	55	3	5	10,600	16,100	5,370	175	186	140	457	3105
	7.5	115	65	3	5	12,600	20,100	6,720	274	287	175	570	3130
	7.5	140	95	3	5	14,500	24,200	8,060	395	410	210	681	3155
	7.5	165	85	3	5	16,400	28,200	9,410	537	554	245	794	3180
	7.5	190	90	3	5	17,300	30,200	10,000	701	677	263	903	3205

1N≒0.102kgf 1N·m≒0.102kgf·m

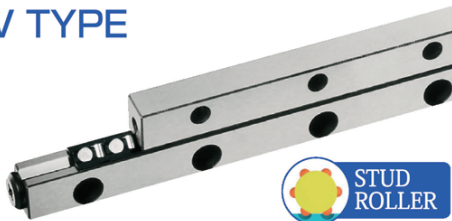
Accuracy measurement method



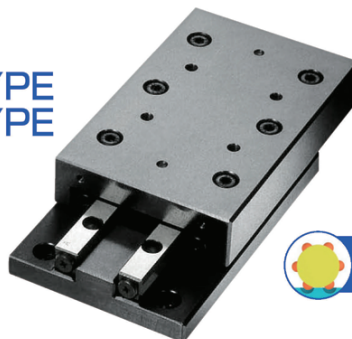
SLIDE WAY SERIES

The NB slide way is a non-recirculating linear motion bearing utilizing precision rollers. It is used primarily in optical and measurement equipment where high precision movement is required.

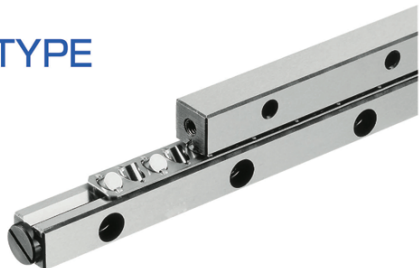
NV TYPE



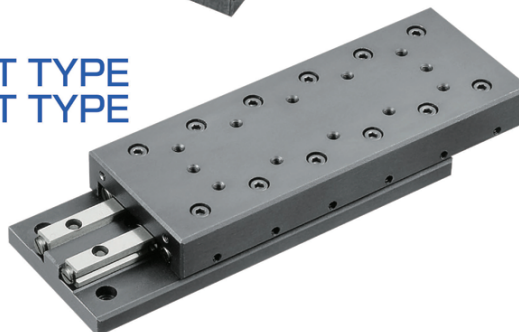
NVT TYPE NYT TYPE



SV TYPE



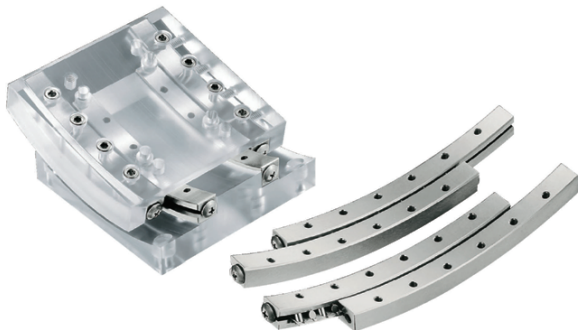
SVT TYPE SYT TYPE



GONIO WAY

Curved motion bearing utilizing non-recirculating precision rollers. Used where change of gradient or obtaining accurate gradient angle.

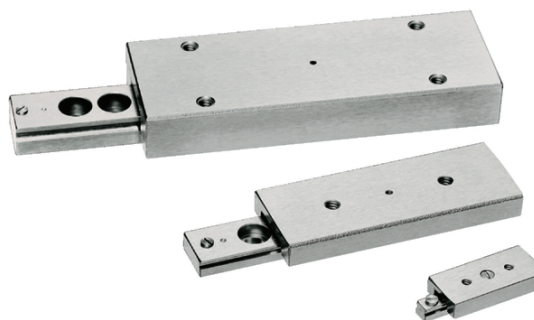
RV TYPE



MINIATURE SLIDE

Utilizing balls as the rolling element with ultra compact design for achieving light weight.

SYBS TYPE



Please refer to our general catalog for additional details



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