

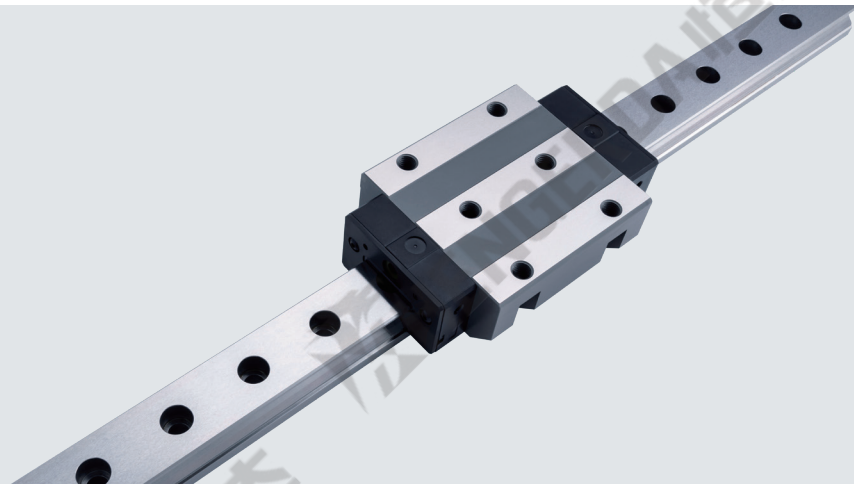


Stock Code: 300946

SUA SERIES

LINEAR GUIDEWAY (ROLLER TYPE)

HENGERDA NEW MATERIALS (FUJIAN) CO., LTD.



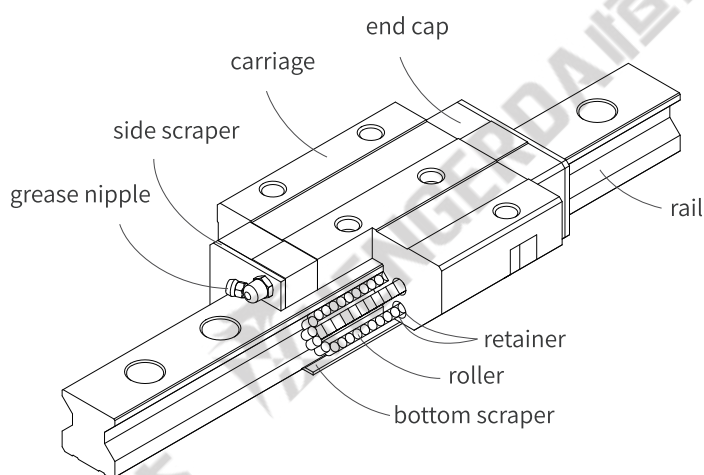
01

CHARACTERISTICS OF SUA LINEAR GUIDEWAYS

The design of SUA series adapts roller as the rolling elements instead of steel balls, so that stronger rigidity and higher loading capability can be achieved. At the same time, SUA linear guideways are designed to have 45 degree contacting angle with the rail and slider, which enables SUA to bear equal load from all four directions of contact. Roller type linear guideways have much stronger loading capability than the ball type ones, making SUA very suitable for equipping machines that work with heavy machining, heavy movement, and high precision needs.

02

BASIC STRUCTURE OF SUA SERIES



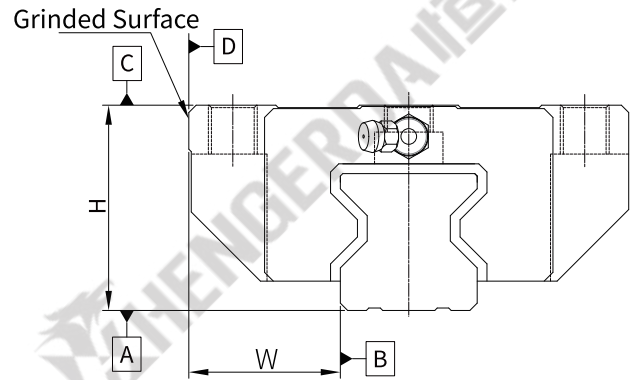
03

APPLICATION EXAMPLES

SUA series are widely used in machine including CNC machining center, CNC grinding machine, NC lathe, gantry machining center, gantry grinding machine, photovoltaic equipment, and automated production applications in the industries of electronics, woodworking, stone machining, logistics, transportation, semiconductor and so on.

04 PRECISION LEVEL

SUA linear guideways have four precision levels of High (H), Precision (P), Super Precision (SP) and Ultra Precision (UP). Users can choose the needed precision level based on application needs.



Unit : mm

Model		SUA-25,30,35			
Item	Precision	High(H)	Precision(P)	Super Precision (SP)	Ultra Precision (UP)
Height Tolerance (H)		± 0.04	0 -0.04	0 -0.02	0 -0.01
Width Tolerance(W)		± 0.04	0 -0.04	0 -0.02	0 -0.01
Paired Single Axis Combined Height Tolerance (ΔH)		0.015	0.007	0.005	0.003
Paired Single Axis Combined Width Tolerance (ΔW)		0.015	0.007	0.005	0.003
Running Parallelism of Plane C Relative to Plane A		See the figure above			
Running Parallelism of Plane D Relative to Plane B					

Unit : mm

Model		SUA-45			
Item	Precision	High(H)	Precision(P)	Super Precision (SP)	Ultra Precision (UP)
Height Tolerance (H)		± 0.05	0 -0.05	0 -0.03	0 -0.02
Width Tolerance(W)		± 0.05	0 -0.05	0 -0.03	0 -0.02
Paired Single Axis Combined Height Tolerance (ΔH)		0.015	0.007	0.005	0.003
Paired Single Axis Combined Width Tolerance (ΔW)		0.02	0.01	0.007	0.005
Running Parallelism of Plane C Relative to Plane A		See the figure above			
Running Parallelism of Plane D Relative to Plane B					

GUIDEWAY LENGTH AND RUNNING PRECISION CHART

Rail Length mm	Precision Level			
	H	P	SP	UP
	running parallelism values for ΔH and ΔW values (μm)			
0~100	7	3	2	2
100~200	9	4	2	2
200~300	10	5	3	2
300~500	12	6	3	2

500~700	13	7	4	2
700~900	15	8	5	3
900~1100	16	9	6	3
1100~1500	18	11	7	4
1500~1900	20	13	8	4
1900~2500	22	15	10	5
2500~3100	25	18	11	6
3100~3600	27	20	14	7
3600~4000	28	21	15	7

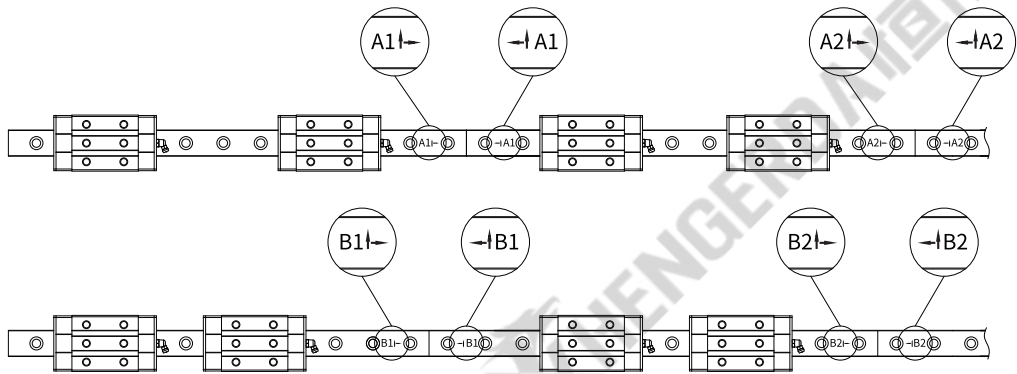
05 PRELOAD

SUA PRELOAD

C : Basic Dynamic Load

Level	Item Preload	Symbol	Preload
	Light Preload	Z0	0.02C~0.04C
	Medium Preload	ZA	0.07C~0.09C
	Heavy Preload	ZB	0.12C~0.14C

06 BUTT-JOINTS OF RAILS



When the length of linear guideway needs to be higher than its standard length, two or more linear guideways could be connected to meet the length requirement. Please follow the aligning instruction as illustrated (note: The clearance between linear guideway should be near 0.05 mm). The coding patterns are shown in the table below:

	Align the first linear guideway	Align the second linear guideway	Align the third linear guideway	...	Align the Nth linear guideway
Axis 01 in parallel	No markings,A1	A1 , A2	A2 , A3	A3 , ...	AN,No markings
Axis 02 in parallel	No markings,B1	B1 , B2	B2 , B3	B3 , ...	BN,No markings
...	...				...
Axis 26 in parallel	No markings,Z1	Z1 , Z2	Z2 , Z3	Z3 , ...	ZN,No markings

07 PRODUCT MODELS

A CODING PRINCIPLES

1 SUA	2 H	3 30	4 CN	5 Z0	6 P	7 UU	8 2	9 R2000: Mounting from Above + Rail Length 2000MM	10 G1G2	11 II,III
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1 CODING PRINCIPLE

SUA: Roller Type

2 ASSEMBLY TYPE

H: High assembly

C: low assembly

3 SIZE

25、30、35、45

4 SHAPE AND LOAD FORM

VN: Rectangular/heavy load

VE: Rectangular/super-heavy load

CN: Flange/heavy load

CE: Flange/super-heavy load

5 PRELOAD FORM

Z0: Light Preload

ZA: Medium preload

ZB: Weighty preload

6 PRECISION LEVEL

H: High

P: Precision

SP: Super Precision

UP: Ultra Precision

8 THE NUMBER OF SLIDERS FOR A SINGLE RAIL

9 BOLTING OF THE RAIL AND ITS LENGTH

R2000: Mounting from Above + 2000MM Rail Length

T2000: Mounting from Below + 2000MM Rail Length

10 THE SIDE DISTANCE OF LINEAR GUIDEWAY

Left side distance G1: the first hole center distance to the left edge of the rail

Right side distance G2: the first hole center distance to the right edge of the rail

11 THE NUMBER OF RAILS ON A SINGLE AXIS

2 rails marked as: II

3 rails marked as: III, and so on in a similar manner

7 DUST SCRAPER TYPE

UU: Side scraper

DD: Side scraper + bottom scraper

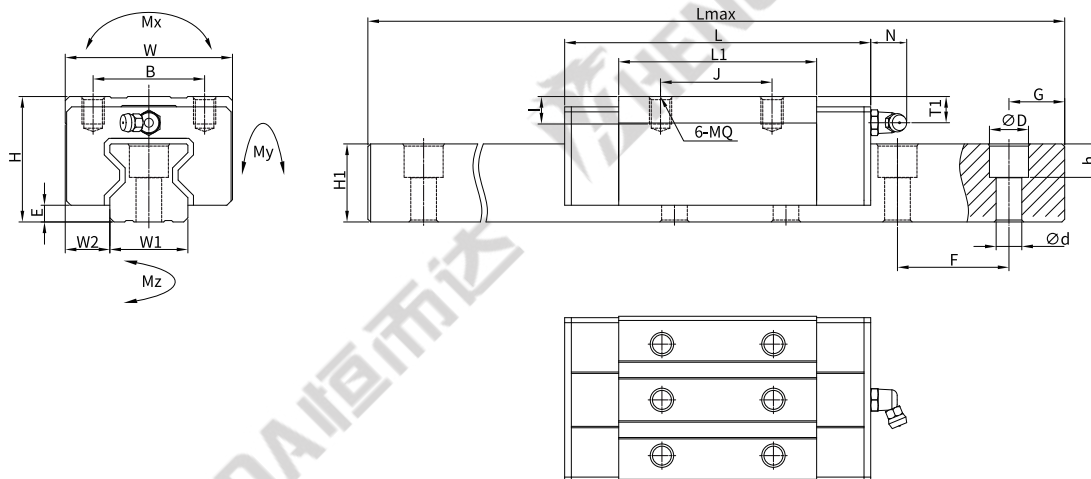
SD: Side scraper + bottom scraper + metal scraper

KK: Double side scrapers + bottom scraper

Unmarked: Side scraper(UU)

B DIMENSION CHART

SUAH_V: HIGH ASSEMBLY SQUARE SLIDER

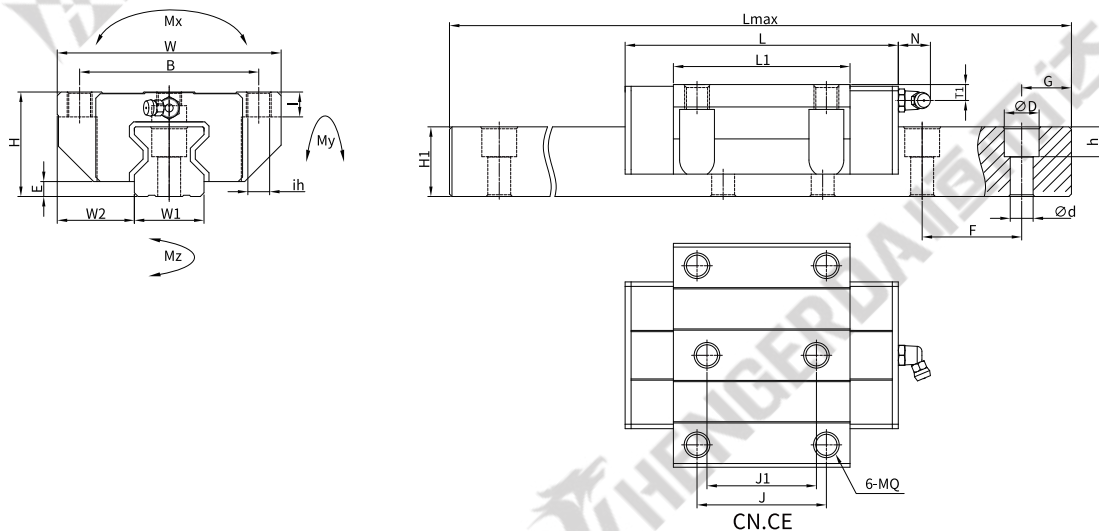


VN.VE

Mode	Assembly specification-mm				Slider-mm								
	H	W	W2	E	L	B	J	MQ	I	L1	Oil H	T1	N
H25VN	40.0	48.0	12.5	5.5	97.9	35.0	35.0	M6	8.0	64.5	M6×1	10.1	13.5
H25VE					114.4		50.0			81.0			
H30VN	45.0	60.0	16.0	6.0	109.8	40.0	40.0	M8	10.0	71.0	M6×1	9.5	13.5
H30VE					131.8		60.0			93.0			
H35VN	55.0	70.0	18.0	6.5	124	50.0	50.0	M8	12.0	79.1	M6×1	16	13.5
H35VE					151.5		72.0			106.5			
H45VN	70.0	86.0	20.5	8.0	153.2	60.0	60.0	M10	17.0	106.0	M10×1	20.0	16.0
H45VE					187		80.0			139.8			

Mode	Guideway (Rail)-mm						Load Rating-KN		Static torque-KN*M			Weight of Slider	Weight of Rail
	W1	H1	F	d	D	h	Dynamic load C	Static load C0	Mx	My	Mz	Kgf	Kgf/M
H25VN	23.0	23.6	30.0	7.0	11.0	9.0	27.9	57.5	0.755	0.601	0.601	0.63	3.05
H25VE							34.3	73.8	0.971	0.985	0.985	0.72	
H30VN	28.0	28.0	40.0	9.0	14.0	12.0	38.7	81.8	1.441	1.02	1.02	0.93	4.43
H30VE							47.8	104.7	1.842	1.707	1.707	1.18	
H35VN	34.0	30.2	40.0	9.0	14.0	12.0	57.5	104.9	2.165	1.438	1.438	1.55	6.05
H35VE							72.9	142.2	2.935	2.582	2.582	2.02	
H45VN	45.0	38.0	52.5	14.0	20.0	17.0	92.1	180.1	4.515	3.058	3.058	3.21	9.95
H45VE							116.2	231.1	6.336	5.467	5.467	4.15	

SUAH_C: HIGH ASSEMBLY FLANGE SLIDER

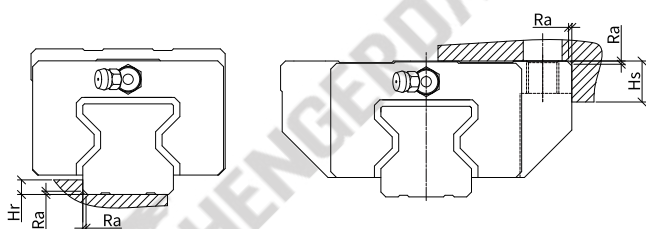


Mode	Assembly specification-mm				Slider-mm										
	H	W	W2	E	L	B	J	J1	MQ	I	ih	L1	Oil H	T1	N
H25CN	36.0	70.0	23.5	5.5	97.9	57.0	45.0	40.0	M8	10.0	6.8	64.5	M6×1	6.1	13.5
H25CE					114.4							81.0			
H30CN	42.0	90.0	31.0	6.0	109.8	72.0	52.0	44.0	M10	10.0	8.5	71.0	M6×1	6.5	13.5
H30CE					131.8							93.0			
H35CN	48.0	100.0	33.0	6.5	124	82.0	62.0	52.0	M10	13.0	8.5	79.1	M6×1	9.0	13.5
H35CE					151.5							106.5			
H45CN	60.0	120.0	37.5	8.0	153.2	100.0	80.0	60.0	M12	15.0	10.5	106.0	M10×1	10.0	16.0
H45CE					187							139.8			

Mode	Guideway (Rail)-mm						Load Rating-KN		Static torque-KN*M			Weight of Slider	Weight of Rail
	W1	H1	F	d	D	h	Dynamic load C	Static load C0	Mx	My	Mz	Kgf	Kgf/M
H25CN	23.0	23.6	30.0	7.0	11.0	9.0	27.9	57.5	0.755	0.601	0.601	0.7	3.05
H25CE							34.3	73.8	0.971	0.985	0.985	0.87	
H30CN	28.0	28.0	40.0	9.0	14.0	12.0	38.7	81.8	1.441	1.02	1.02	1.18	4.43
H30CE							47.8	104.7	1.842	1.707	1.707	1.58	
H35CN	34.0	30.2	40.0	9.0	14.0	12.0	57.5	104.9	2.165	1.438	1.438	1.73	6.05
H35CE							72.9	142.2	2.935	2.582	2.582	2.36	
H45CN	45.0	38.0	52.5	14.0	20.0	17.0	92.1	180.1	4.515	3.058	3.058	3.41	9.95
H45CE							116.2	231.1	6.336	5.467	5.467	4.54	

08 PRECAUTIONS OF INSTALLING SUA LINEAR GUIDEWAYS

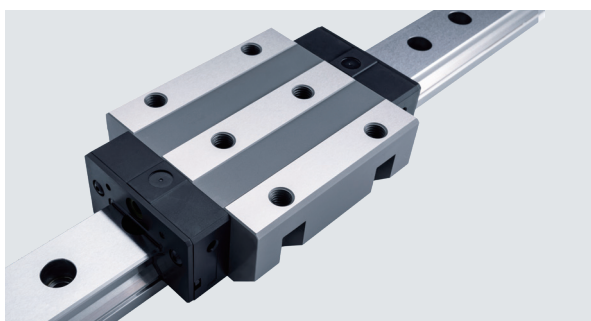
Unit : mm



Size	Ra : Maximum Shoulder Chamfer (mm)	Hr : Maximum Shoulder Height of Rail (mm)	Hs : Maximum Shoulder Height of Slider (mm)
SUA25	1.0	5.0	5.0
SUA30	1.0	5.0	5.0
SUA35	1.0	6.0	6.0
SUA45	1.0	7.0	8.0

09 PRECAUTIONS ON USING SSA LINEAR GUIDEWAY

- 1 Please clean rust-preventive oil before applying lubrication.
- 2 When removing the slider from the rail, please use the dummy rail to remove slider from the rail. Try not to remove slider from the rail unless it must be done.
- 3 After applying lubrication, move the slider for distance about three times the length of the sliders, and repeat the action for more than twice, and ensure the rail surfaces are coated with oil film.
- 4 When storing the linear guideways, please apply rust-preventive oil into the packaging, and lie the product flat, and avoid extreme temperatures plus humid environments.



HENGERDA NEW MATERIALS (FUJIAN) CO., LTD.

Tel: +86 594 2999566

E-mail: intl.trade@hengerda.com

Address: No. 2666 Lixing South Street, Huangshi Town,
Licheng District, Putian City, Fujian Province, China



Official Website



Catalogs