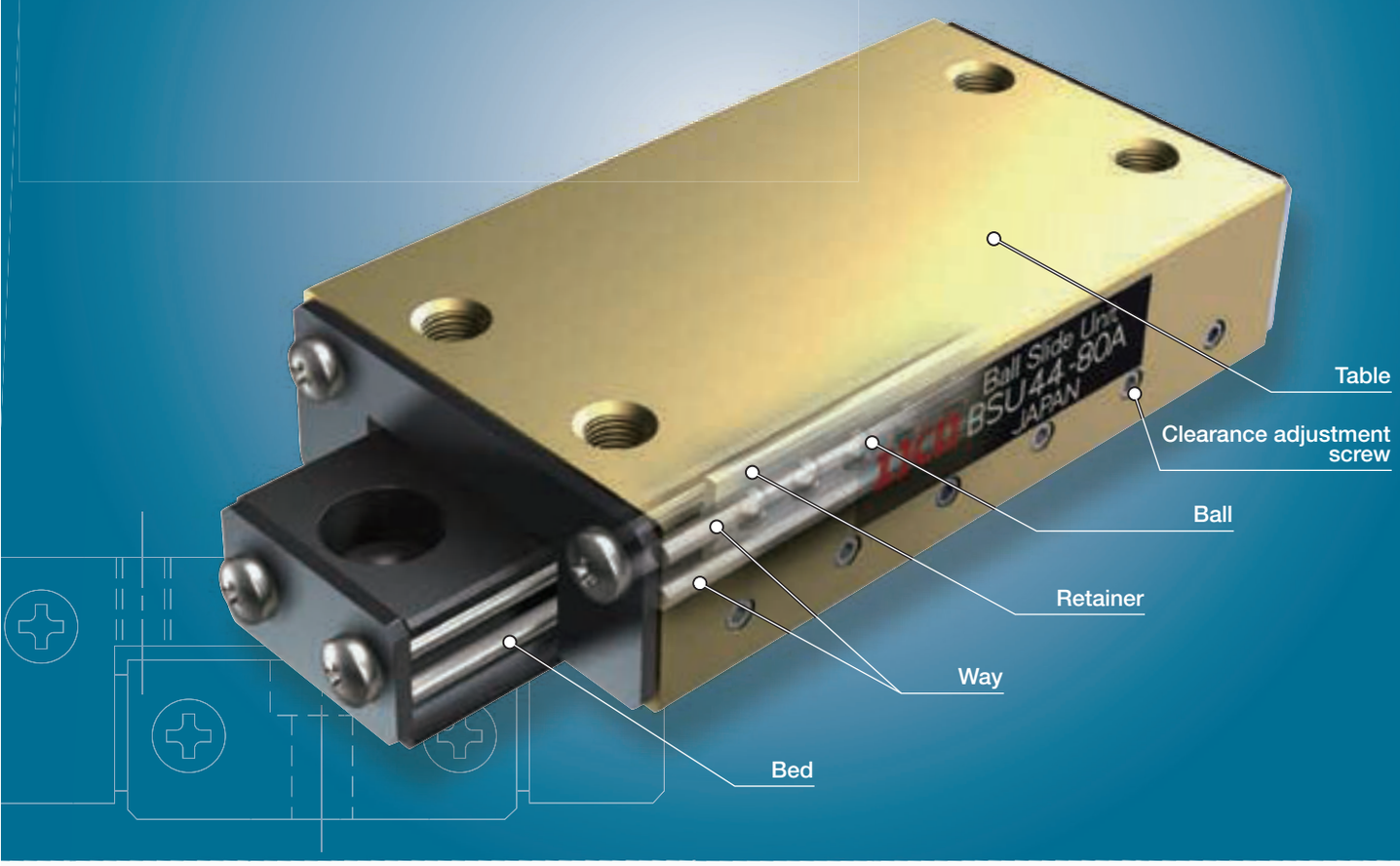
Linear Slide Unit

BSU···A



Points

1 Light weight linear motion guide unit

Since the product uses aluminum alloy for table and bed, it is a light weight and compact limited linear motion guide unit.

2 Smooth operations

Since the ball is guided by the retainer made of synthetic resin and rotates on high accuracy round shank way, it can obtain a light and smooth motion.

3 Easy mounting

Since the product is properly preloaded, it can easily gain a stable linear motion only by fixing it against precisely grounded mounting surface with bolts.

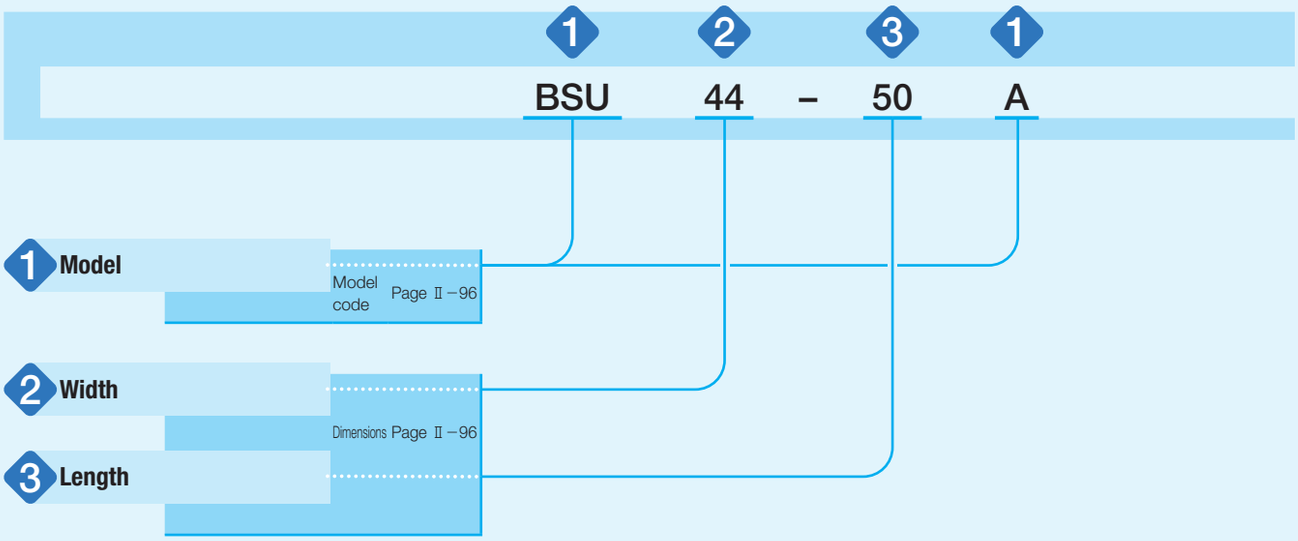
4 Excellent corrosion resistance

The ball and way are mode of stainless steel and the surface of table and bed have anodic oxidization coating, allowing high corrosion resistance.

Identification Number and Specification

Example of an identification number

The specification of BSU···A series is indicated by the identification number. Indicate the identification number, consisting of a model code and dimensions for each specification to apply.



Identification Number and Specification

1 Model

Linear Slide Unit : BSU···A

For applicable models, width and length, see Table 1.

2 Width

44, 66

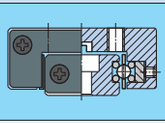
Indicate the table width in mm.
For applicable models, width and length, see Table 1.

3 Length

Indicate the length in mm.
For applicable models, width and length, see Table 1.

Table 1 Width and length of BSU···A series

unit: mm

Shape	Model	Width	Length				
			50	80	100	125	150
	BSU···A	44	○	○	○	–	–
		66	–	–	○	○	○

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

Allowable Load

Allowable load refers to load of smooth rolling motion on contact surface to which maximum contact stress is applied and the sum of whose elastic deformation of rolling elements and raceway is small.

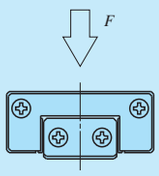


Fig.1 Direction of allowable load

Lubrication

Grease is not pre-packed in the BSU···A series, so perform adequate lubrication as needed.
Perform cleaning with clean solution before mounting and apply high-quality lubrication oil or grease to the raceway before use.

Accuracy

❶ Running accuracy

Parallelism at the table center against the bed mounting surface (see Fig. 2): 10 μm / 10 mm

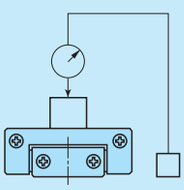


Fig.2 Parallelism at the table center

❷ Allowance of deviation at the table center

Deviation at the table center after stroking the table and returning to the same position (see Fig. 3.): 1.5 μm

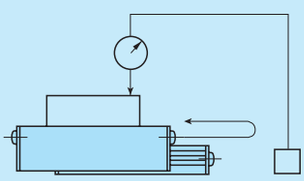


Fig.3 Deviation at the table center

Precaution for Use

❶ Handling

When high running accuracy is required, set the load point at the center of the table (or bed) and use with sufficient stroke length.

For the BSU···A series, the retainer may be deviated from the right position due to offset load or irregular and high-velocity motion, etc. Fully stroke it once in certain operating time or certain number of reciprocating motion to correct the retainer position.

Since BSU···A series have small allowable load F, handling requires special care. Especially when clearance adjustment is performed, too much tightening of clearance adjustment screw will create impression on ball or way, which can adversely affect the friction, noise and vibration of the bearing. When performing clearance adjustment, gradually rotate the clearance adjustment screw by checking the motion status and paying special attention.

❷ Operating temperature

The table and bed of BSU···A series are made of aluminum alloy, and the clearance may change by the operating temperature. When using in the temperature outside the normal temperature, contact IKO. When using in wide operating temperature range, it is recommended to use IKO High Rigidity Precision Linear Slide Unit.

❸ Maximum velocity

Operating velocity should not exceed 30 m/min during operation.

Precaution for Mounting

❶ Mounting

The fixing thread depth of fixing screws must not exceed the maximum fixing thread depth indicated in the dimension table. Since the fixing screw hole for the table is penetrated, the bed or retainer will be pushed by the screw if the fixing thread depth is too deep, and the running accuracy and life may be adversely affected.

❷ Tightening torque for fixing screw

Typical tightening torque for mounting of the BSU···A series to the steel mating member material is indicated in Table 2. If the mating member material is cast iron or aluminum alloy, reduce the tightening torque depending on the strength characteristics of the mating member material.

Table 2 Tightening torque for fixing screw

Bolt size	Tightening torque N・m
M5×0.8	5.0

Remark: The tightening torque is calculated based on property division A2-70 of stainless steel hexagon socket head bolt.

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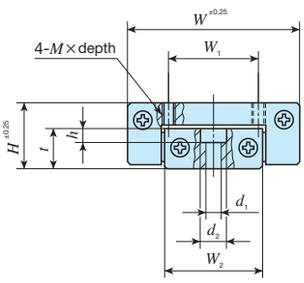
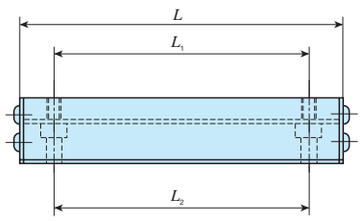
1mm=0.03937inch

IKO Linear Slide Unit

Shape	BSU···A	
Size	44	66





Identification number	Mass (Ref.)	Nominal dimensions mm				Table mounting dimensions mm		
	g	H	W	L	Stroke length	W_1	L_1	
BSU 44- 50 A	110	20	44	50	25	20	35	
BSU 44- 80 A	175			80	50		65	
BSU 44-100 A	220			100	75		85	
BSU 66-100 A	420	25	66	100	50	35	75	
BSU 66-125 A	525			125	75		100	
BSU 66-150 A	625			150	100		125	

		Bed mounting dimensions mm						Allowable load F
	M×depth	W_2	t	L_2	d_1	d_2	h	N
	M5×7	21.8	12.3	35	5.3	10	5.3	98.1
				65				177
				85				235
	M5×8	37	16	75	5.3	10	5.3	265
				100				392
				125				510

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1mm=0.03937inch