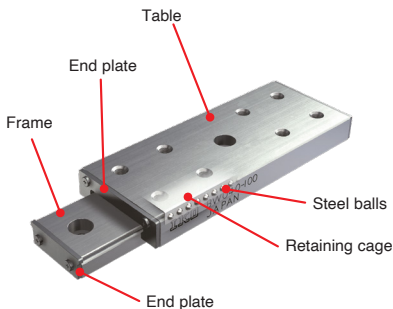
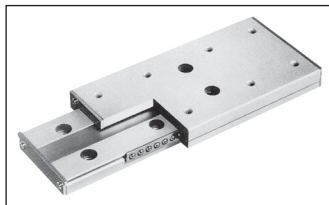


Compact precision slide

High rigidity, reduced stroke length **IKO BWU**

- **Non-recirculating ball bearing slide consisting of a table and a frame**
- Limited stroke
- For applications requiring high rigidity



Advantages

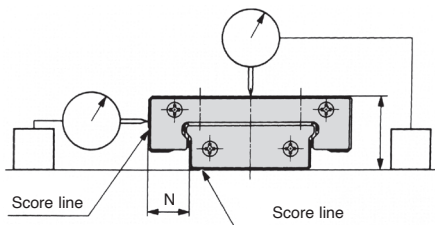
- Robust table and frame mounted with precision balls
- Constant accuracy and high rigidity, even under variable or complex loads
- Compact and smooth travel
- Made of stainless steel, excellent resistance corrosion and heat resistance

Applications

- For use in clean environments (clean room)
- Medical equipment
- Integrated circuit manufacturing
- Vacuum equipment

Accuracy

The operational accuracy of the BSP linear slide is shown in the table below:



Parameter	Deviation and variation (mm)
Tolerance on H	+/- 0,040
Tolerance on N	+/- 0,050

Operational accuracy:

Nominal length of slide L du patin (mm)		Central parallelism (1)	Side parallelism (2)
from	to		
-	50	4	6
50	80	5	8
80	120	6	9

Note (1) : The value of parallelism at table centre shows the maximum variation of height measured at the table centre along the length of the stroke.

Note (2) : The value of parallelism at table side shows a maximum variation of height measured at table side along the length of the stroke.

Life expectancy

The life expectancy of BWU precision slides is given by the following formula:

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

where:

L : Life expectancy in kilometres (10^3 m)

C : Basic dynamic load rating, (N)

P : Equivalent load, (N)

Actual loads applied to the linear guide sometimes exceed the theoretically calculated load due to vibration and shocks caused by the operation of the machine. A more realistic life expectancy can be calculated using the following formula which takes the load factor into account:

$$L=50 \left(\frac{C}{f_w F_c} \right)^3$$

where:

f_w : load factor (see table)

F_c : Theoretical load (N)

In applications where the stroke length and the number of strokes per minute are known, the life expectancy in hours can be calculated as follows:

$$L_h = \frac{10^6 L}{2Sn1 \times 60}$$

where:

L_h : life expectancy in hours (h)

S : Stroke length (mm)

n1 : Number of strokes per minute (spm)

Load factor

Operating conditions	f _w
Smooth working without vibrations and/or shocks	1 ~ 1.2
Normal operation	1.2 ~ 1.5
Subjected to shocks	1.5 ~ 3

Static security factor

The static security factor (f_s) of precision slides is calculated using the formula below, general values are given in the table:

$$f_s = \frac{C_0}{P_0}$$

for which:

f_s : static security factor

C_0 : capacity of basic static load (N)

P_0 : static load (N)

Operating conditions	f_s
Working with vibrations and/or shocks	3 ~ 5
High performance working	2 ~ 4
Normal working	1 ~ 3

Precautions when using

- 1- In order to ensure smooth motion of BWU precision slides, before operating them for the first time, it is recommended to remove the rust prevention oil with a suitable cleaning agent, and then apply a high grade lubricating oil or grease to the raceways.
- 2- BWU precision slides do not incorporate any mechanical stops. When over stroke can be expected during normal operation, add a mechanical stop at a suitable location.
- 3- To maximize the accuracy of BWU precision slides, centre the applied load over the table or bed and choose a slide length that is greater than the stroke length required.
- 3- Unevenly applied loads and high fluctuating velocities may dislocate the position of the ball cage in the sliding part. Therefore, it is recommended that the cage is periodically repositioned to its proper location by cycling the BWU precision slide over its full stroke length for a given number of strokes or for a given time.
- 5- BWU precision slides can operate at high temperatures because they contain no synthetic parts. However if the slide is required to operate at temperatures in excess of 100°C, please consult us for advice.
- 6- BWU precision slides can be operated at speeds lower than 30 metres per minute.