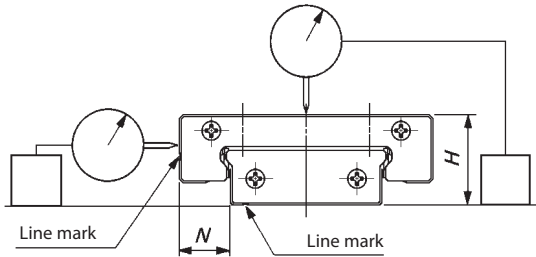


# LINEAR MOTION

## Precision Linear Slide Units

BWU Series

### BWU SERIES



Mounting bolt tightening torques in general application when hexagon socket head stainless steel bolts (equivalent to JIS nature division A2-70) are used.

Bolt Size	Tightening Torque Nm
M1 x 0.25	0.04
M1.6 x 0.35	0.15
M2 x 0.4	0.31
M3 x 0.5	1.10
M4 x 0.7	2.50

Item	Deviation and Variation	Nominal Length of unit mm		Parallelism at table centre <sup>(1)</sup>	Parallelism at table side <sup>(2)</sup>
		Over	Incl.	μm	μm
Dim. H tolerance	±0.040	-	50	4	6
Dim. N tolerance	±0.050	50	80	5	8
		80	120	6	9

- Notes:
- (1) The value of parallelism at table centre shows a maximum variation of unit height when the table is stroked.
  - (2) The value of parallelism at table side shows a maximum variation measured at table side (Line-marked side) when the table is stroked.

### Load Rating

The basic dynamic load rating is defined as a constant load both in direction and magnitude under which a group of identical Precision Linear Slides are individually operated and where 90% of the slides in the group can travel  $50 \times 10^3$  m free from material damage due to rolling contact fatigue.

### Basic Static Load Rating

The basic static load rating is defined as a static load that gives a prescribed constant contact stress at the centre of the contact point between the rolling element and raceway receiving the maximum load.

### Mounting

#### Reference mounting surface:

The reference mounting surface is always identified by the line marks (Fig. 1)

#### General Mounting Procedure:

As shown in Fig. 1, the reference mounting surfaces [B] and [D] and the mounting surfaces [A] and [C] are precisely finished by grinding. Stable linear motion with high accuracy will be obtained by correctly mounting the unit on the mounting surfaces of the machine which will be precisely finished.

It is recommended to make a relieved fillet at the corner of the mating reference mounting surfaces as shown in Fig. 2.

#### Where Lateral Load is Predominant:

As in Fig. 3, fix the side of the table and the side of the bed securely onto the machine.

Fig. 1 Reference mounting surface and mounting example.

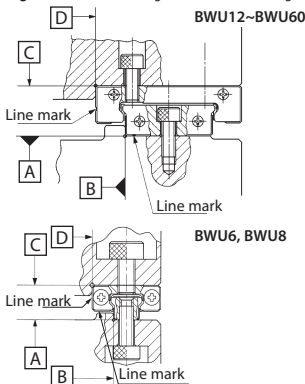


Fig. 2 Shoulder height of the mating reference mounting surfaces.

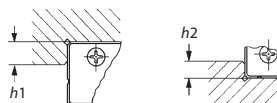


Fig. 3 Example of mounting when lateral load is predominant.

