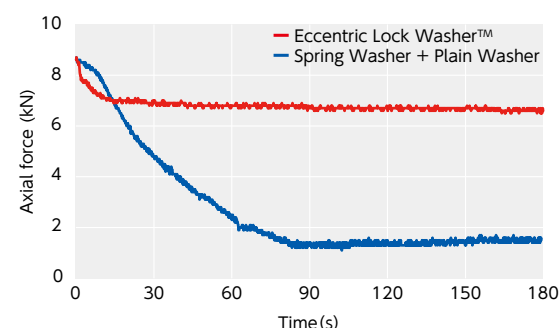


⚠ Precautions for Use

- Dedicated for hexagon nuts. Do not use on head side of hexagon head bolts.
- After tightening, use bolts with length sufficient to ensure screw thread pitches of 3 or more extending beyond the hexagon nuts.
- Do not use with other washers such as plain washers.
- When using half-thread bolts, confirm that the eccentric washer is in the screw thread part.
- Bolt damage may ensue due to product properties.



- Vibration resistant treatment effect can be achieved simply by using commercially available hexagon nuts.
- Hexagon nuts can be tightened by hand until tightening force applies, for simple mounting.
- Use the receiving washer and eccentric washer as a set.
- Passes NAS-type vibration tests (NAS3350).
- Vibration resistant treatment effect has also been confirmed with the Junker test.



• Test conditions

Bolt size: M10 - 40
Distance between washer surfaces: 24mm
Amplitude: $\pm 0.43\text{mm}$
Vibration: 3.3Hz
Test time: 180 sec

• Application

Vibration resistant treatment

• Material/Finish

	SWAS-EW
Receiving Washer	SUS304
Eccentric Washer	SUS304



Unit : mm

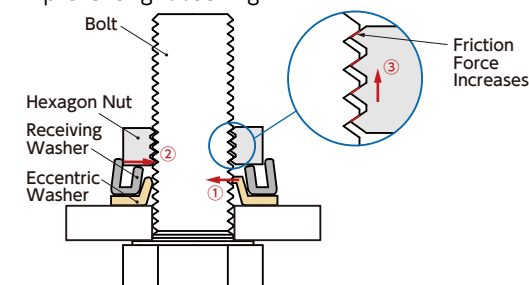
Part Number	Nominal	D	d	B	C	t ₁	t ₂	t	Reference tightening torque (N·m)	Mass (g)	Qty per pack
SWAS-6-EW	6	12	6.05	11.6	13.3	2.65	2.9	3.9	10	1.5	100
SWAS-8-EW	8	17	8.1	15	17.3	3.3	3.9	5.1	28	3.5	100
SWAS-10-EW	10	21	10.2	19.8	22.8	4.05	4.8	6.2	55	7.2	100
SWAS-12-EW	12	24	12.2	22	25.4	4.5	6	7.5	90	11	100

- One bag contains a 100-piece set of bearing washers and eccentric washers.
- When purchasing less volume than one full bag, a separate handling fee is charged. For details, see the Sold Separately Service.

Individual Sales → P.0000	Cleanroom Wash & Packaging → P.0000	Screw Length Adjustment → P.0000	Vibration Resistant → P.0000	Modification process for captive use → P.0000
Available / Add'l charge	Available / Add'l charge	Not Available	Not Available	Not Available

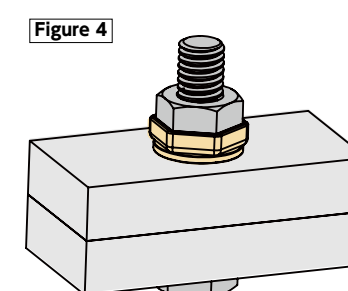
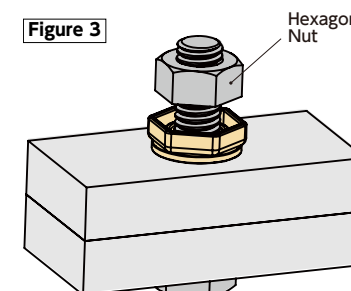
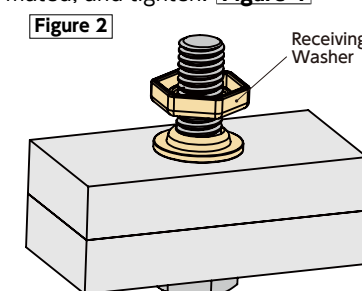
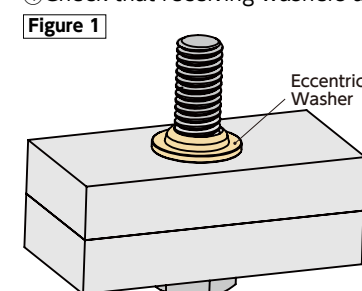
• Structure

- ① Tightening hexagon nuts causes eccentric washers to bite into bolts.
- ② Receiving washers press hexagon nuts into bolts.
- ③ Receiving washers then press hexagon nuts upward, increasing friction between hexagon nuts and bolts and preventing loosening.



• Installation Method

- ① Mount eccentric washers with convex side upward. **Figure 1**
- ② Mount receiving washers with concave side upward. **Figure 2**
- ③ Screw in hexagon nuts until they lightly contact receiving washers. **Figure 3**
- ④ Check that receiving washers and hexagon nuts are mated, and tighten. **Figure 4**



• Part number specification

SWAS-10-EW

