

FIMA-LOCK is different.

If you value human **safety**, if product **quality** and **durability** matter to you,
if you want to show off a **unique** and **luxurious** product design,
if you want to expand your applications **from 1-2 to 2-3 areas**,
and if you need a certified, **high-performance**,
and guaranteed anti-loosening solution over a simple one,

FIMA-LOCK is the answer.

FIMA-LOCK Introduce the brand

FIMA-LOCK is a brand that signifies “**Fundamentally Improve All Your LOCK,**” and aims to fundamentally protect and benefit customers’ safety and technology.

FIMA-LOCK Brand history

Following its corporate slogan, FIMATECH began designing and manufacturing FIMA-LOCK, an essential tool for technological development, cost-saving, and workplace and customer product safety.

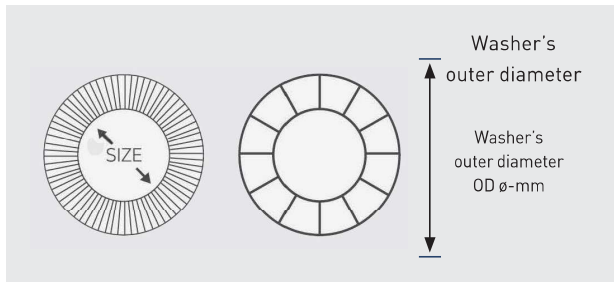
In the special anti-loosening market overrun with imported products, FIMA-LOCK offers distinguished technology and safety, and has been supplied to large domestic companies and their business partners as well as the global market through partners such as those in the United States and Japan.

Basic information

Name of the product : FIMA -LOCK
 Product : Loosening prevention washer
 Quality of the material : SUS316L
 Certified : NAS3350, JUNKER TEST

* It neither generates electromagnetic fields nor contains magnetic components.

Dimension lookup table



Specification sizes

Size	Washer's outer diameter	Thickness (mm)	Packing quantity (One container)	Small OD(General)Code	
				Steel	Sus3 16L (Stainless)
5	9.0	1.8	200	FLT-5	FLU-5
6	10.8	1.8	200	FLT-6	FLU-6
1/4"	11.5	2.5	200	FLT-1/4	FLU-1/4
8	13.5	2.5	200	FLT-8	FLU-8
3/8"	16.6	2.5	200	FLT-3/8	FLU-3/8
10	16.6	2.5	200	FLT-10	FLU-10
11	18.5	2.5	200	FLT-11	FLU-11
12	19.5	2.5	200	FLT-12	FLU-12
1/2"	19.5	2.5	200	FLT-1/2	FLU-1/2
14	23.0	3.4	100	FLT-14	FLU-14
16	25.4	3.4	100	FLT-16	FLU-16
18	29.0	3.4	100	FLT-18	FLU-18
3/4"	30.7	3.4	100	FLT-3/4	FLU-3/4
20	30.7	3.4	100	FLT-20	FLU-20
22	34.5	3.4	100	FLT-22	FLU-22
24	39.0	3.4	100	FLT-24	FLU-24
1"	39.0	3.4	100	FLT-1	FLU-1
27	42.0	5.8	50	FLT-27	FLU-27
30	47.0	5.8	50	FLT-30	FLU-30
33	48.5	5.8	25	FLT-33	FLU-33
36	55.0	5.8	25	FLT-36	FLU-36
39	58.5	5.8	25	FLT-39	FLU-39
42	63.0	5.8	25	FLT-42	FLU-42

FIMA-LOCK principles and characteristics

1. The FIMA-LOCK Washer firmly and safely fastens the bolt and nut using tension.
2. The FIMA-LOCK Washer is composed of two surfaces. The inner surface has a cam and the outer one has radial teeth, so it will be firmly affixed to an exterior when the washer is applied.
3. It is higher in hardness than high-tension bolts and nuts.
4. The cam's Angle A is greater than the helix's Angle B, generating tension through the wedge effect to prevent the bolt and nut from loosening.

FIMA-LOCK fastening guidelines

	Design conditions where fastening and application are appropriate	Design conditions where fastening and application are not recommended
FIMA-LOCK Washer	<ol style="list-style-type: none"> 1. Tapped holes 2. Counter bores(Counter borehole./DIN974) 3. Through holes 4. Stud bolts 5. Large/slotted holes 6. Soft surface fastening part 	<ol style="list-style-type: none"> 1. When the contact surface is not fixed 2. When the base material's hardness is higher than the washer's 3. Sections where a certain level of fastening force cannot be expected
etc.	In general, two FIMA-LOCK sets are needed for through holes, as mentioned in #3 above. One prevents bolt loosening and the other prevents nut loosening.	If one or more of the above design criteria are satisfied, FIMATECH will join you to find an alternative solution.

Junker Test

The DIN65151 Junker Test is Germany's standard for measuring anti-loosening performance.



<Junker Test Pass>

NAS3350 Test

The NAS3350 Test is the National Aeronautics and Space Administration (NASA)'s standard and the world's foremost examination, using tens of thousands of vibrations for 17 min to check the performance of anti-loosening washers.



<NAS3350 Pass>

FIMA-LOCK WASHER VS Other companies' products

▶ Stainless Steel

Content	A, an overseas company	B, an overseas company	FIMA-LOCK
Vibration test	- Junker Test (DIN65151 Reference) - NAS 3350 Reference	- Junker Test (Referring to DIN65151)	- Junker Test (DIN65151 Reference) - NAS 3350 Reference
Surface treatment	Surface hardening treatment		
Washer's outer diameter	≥520HV0.05		
Coating treatment	None		STS/EN Ni-P 10D (Nickel coating treatment)
Corrosion resistance (Minimum)	None		1,650 hr minimum salt spray test

Product applications



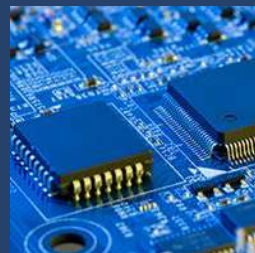
Power generation facilities (nuclear, hydro, wind)



Automobiles, heavy equipment (excavators, cranes, agricultural machinery)



Railway equipment and railways, trains, subways, high-speed trains



Semiconductor production equipment, assembly



Aircraft production, assembly, aerospace development



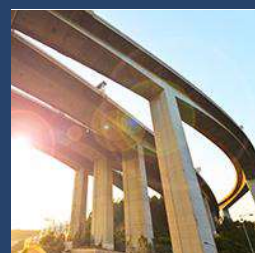
Construction equipment and mining equipment



Defense industry (military equipment production and structure installation)



Shipyards (ship structure engine) Construction of offshore plant



Bridge, railway, structure



Steelworks, heavy chemical industry