



POSI LOCK

PSL-K/PSL-K-B/PSL-K-C/PSL-K-F

Instruction Manual

This manual is common to standard, hexagon head bolt type, basic antirust type, and stainless steel type.

Before use this product, read the instruction manual carefully and use the product safety and correctly.

| | |
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1. Before using

1-1 After opening the package

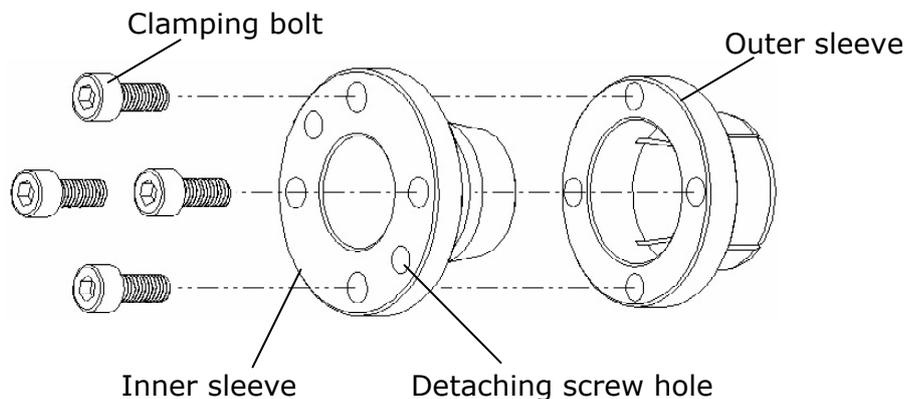
First, please check the following points.

- 1) Is the product what you ordered?
- 2) Is the product damaged during transportation?

If any problems are found, please contact your supplier.

1-2 Structure and parts

The main part consists of three parts. "Outer sleeve / Inner sleeve / Clamping bolt"



1-3 Part quality of the material

PSL-K: Standard

Sleeve: equivalent of S45C thermal refining

Clamping bolt: SCM435, Black oxide finish

PSL-K-B: Hexagon bolt type

Sleeve: equivalent of S45C thermal refining

Clamping bolt: SCM435, Black oxide finish

PSL-K-C: Basic antirust type

Sleeve: equivalent of S45C thermal refining, Electro less nickel plating

Clamping bolt: SCM435, GEOMET treatment

PSL-K-F: Stainless Steel type

Sleeve: SUS 304

Clamping bolt: SUH660, Solid lubricant film treatment

2. Safety Precautions

Please read carefully through the instruction manual and the technical information for proper use and safety. In this manual, safety precautions are classified by "DANGER" and "CAUTION".

| | | |
|---|----------------|---|
|  | DANGER | When death or serious injury may result by mishandling |
|  | CAUTION | When disability or only physical damage may result by mishandling |

Equipment use (atomic energy, aerospace, medical treatment, transportation, or various safety devices) that may result in serious bodily injury or loss of life directly by mechanical failure or mishandling, careful examination is necessary. Contact us for further information. The company has taken all possible measures to produce a quality product; however, continuous rotational states when the clutch can not be disengaged or coasting of the machine when the brakes went off is envisioned as emergency. Please pay attention to safety measures in case anything goes wrong.

DANGER

Structural precautions

| | |
|---|---|
|  | Touching the product during operation could cause injury. Place a safety cover to avoid any accident. Additionally, set up a safety mechanism for quick stop of the product when opening the cover. |
|  | Do not use the product near flammable liquids or in the presence of gas and other explosive air particles. |



The driven and driving sides could be completely detached when the product is damaged. Set up a safety mechanism such as a safety brake to avoid any danger.

Mounting precautions



Depending on the tightening adjustment of bolt or screw, exceptionally dangerous situations such as product damage or performance degradation could occur. Always use a calibrated torque wrench and clamp at the tightening torque specified by Miki Pulley.



It is very dangerous if the driving part starts by accident while mounting the product. Be sure that the main power of the equipment is turned off.

Cautions during operation



If the product is used in excess of more than its maximum rated permissible speed, very dangerous product damage could occur by a large vibration.



Due to the exposed rotor, touching the product during operation may cause injury. Make sure not to touch the product during operation.



Using the product with more than the "maximum permissible misalignment" could cause damage or adverse effect on the equipment. Always operate the product within the specified "maximum permissible misalignment."

Cautions for maintenance and inspection



It is extremely dangerous if the driving part starts operating by accident while dismantling the product. Make sure that the main power of the equipment is off.

Cautions for disposal



Do not leave the product around where young children may play.



CAUTION

Structural precautions



Do not use the product in an environment where chemicals may spill, humidity is high, or in hot or cold temperature.

Mounting precautions



The installation of the product must be performed within the specified maximum permissible error. Using the product with more than the maximum permissible error could cause damage or adverse effect on the equipment.



Using a bolt or screw that is not specified by our company could damage the product. Do not use any bolt or screw unspecified.



To avoid any injury by stripping, spring pin or keyway, make sure to wear protective equipment such as safety glasses or gloves.



Lifting of a heavy weight could cause back injury. Use a hoist when carrying or mounting the product.

Cautions during operation



Using the product with more than the specified permissible torque could cause damage or adverse effect on the equipment.



If abnormal noises or vibrations occur during operation, improper mounting should be considered. Do not leave the situation as it is. It may cause damage to the equipment itself. Also, for reasons other than above, the belts and other screws may loosen or become defective even if the product is mounted correctly.



Using the product when the locking part is in a slip condition could over heat the product, which could cause damage to the equipment.

Cautions for maintenance and inspection



We will refuse to take responsibility as to the damaged product that is dismantled, remodeled or repaired by a third party except our company and the designated company. Therefore, for the product that the assembly process or procedure of dismantlement is described in the manual, we will not be responsible as well. Please use our service network for repair and dismantlement.

Cautions for disposal



Call for a waste-control-collection company for disposal.

3. Installation procedure

3-1 Cleaning the shaft and hub

Wipe off any rust and dust adhering to the inner shaft and hub completely. And apply a thin coating of oil or grease.

Notice

Do not use molybdenum containing oil. It will affect the coefficient of friction.

3-2 Cleaning the POSI LOCK

Wipe off any rust prevention oil or dust from the surface of the POSI LOCK (inner sleeve and the outer sleeve). Do not disassemble and wipe off the other parts.

3-3 Mounting on the shaft and hub

Set the POSI LOCK to the shaft and hub. After fasten each clamping bolt lightly to contact, position.

Notice

If the POSI LOCK is hard to be inserted, loose each clamping bolts slightly and then insert the POSI LOCK.

Do not fasten the clamping bolt until the POSI LOCK is completely set to the shaft and hub.

3-4 Fastening the clamping bolts

Apply lock tight equally to each clamping bolt, and tighten each clamping bolt diagonally from each other. Then, tighten all of the clamping bolts to the specified torque by using a torque wrench. The material used for the clamping bolt of the PSL-K-F is stainless steel and easily

scratched. Careful handling is required especially when fastening the bolt.

3-5 Installation precautions

If the hub is assembled as shown in the figure 1, the outer sleeve will slightly move in the axial direction when tightening. If the hub is assembled as shown in the figure 2, the outer sleeve doesn't move in the axial direction, however, the torque, thrust power, and contact pressure will drop to approximately 70% of the values indicated.

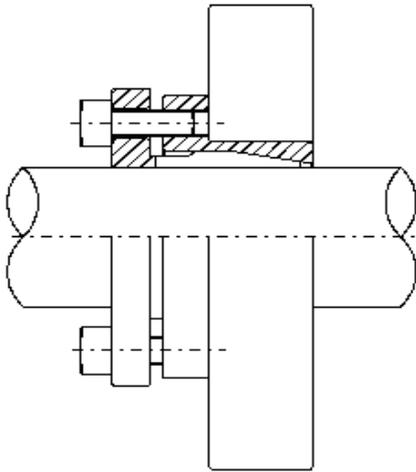


Figure.1

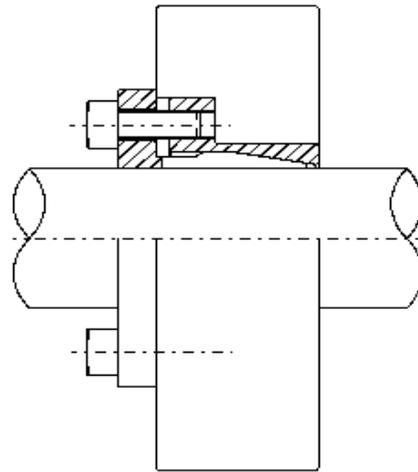


Figure.2

Clamping bolt tightening torque PSL-K / PSL-K-B / PSL-K-C

| PSL-K/-B/-C | Clamping bolt size | Tightening torque [Nm] | Detaching screw hole |
|-------------|--------------------|------------------------|----------------------|
| 6-7 | M4 | 2 | M4 |
| 8-14 | M4 | 4 | M4 |
| 15-25 | M5 | 8 | M5 |
| 28-42 | M6 | 14 | M6 |

Clamping bolt tightening torque PSL-K-F

| PSL-K-F | Clamping bolt size | Tightening torque [Nm] | Detaching screw hole |
|---------|--------------------|------------------------|----------------------|
| 6-7 | M4 | 2 | M4 |
| 8-14 | M4 | 3.5 | M4 |
| 15-25 | M5 | 7 | M5 |
| 28-35 | M6 | 12 | M6 |

4. Removal

4-1 Safety inspection

Confirm that torque or thrust power is not applied to POSI LOCK. Also, make sure if there is any danger of dropping due to the empty weight of the shaft and hub. And then start mounting. POSI LOCK is no self- locking mechanism. By loosening clamping bolts, fastening force is released instantaneously.

4-2 Removal

Since they lock automatically under certain conditions, they may not be able to be removed by loosening the clamping bolts. In this case, do not forcibly remove them. It may cause damage to the shaft, hub, and body.

First, loosen the clamping bolts to open a gap between the flange and the bearing surface of the clamping bolt (2mm is sufficient). Then, screw the bolt into the detaching screw hole. By this action, the fastening force is released. One detaching screw is sufficient. Otherwise, Use two screws.

5. Other notes

5-1 Tightening tool

Use a torque wrench for tightening the clamping bolts.

Hand tightening is improper and can cause problems. Please do not hand tighten.

5-2 Clamping bolt

Do not use any other clamping bolt except what is attached to the product.

It is a special high intensity bolt and other bolts cannot be used.

If you need bolts for such as loss or exchange, please contact our company.

5-3 Case of re-use

Although POSI LOCK is reusable, please do not use if there is any abnormality.

5-4 Precision

Do not change tightening torque for adjust attachment accuracy. In order to demonstrate sufficient performance, all the bolts need to be tightened equally.

MIKI PULLEY

<http://www.mikipulley.co.jp/>

Contact by email

Please contact us using the inquiry form and be aware that support for inquiries received on Saturdays, Sundays, holidays, New Year's, and summer business holidays will be provided on the next business day.

Contact by phone

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