



**Maanshan Fuyong Intelligent Technology Co., Ltd.**

**Ma'anshan Fuyong Intelligent Technology Co., Ltd.**

**Slew drive**

**Use of installation and maintenance manuals**

.Preparation before loading

.Installed

.Use, storage, maintenance

Address: No.4, 1669 North Section of Huolishan Road, Cihu High Tech Zone, Anhui, China

TEL: 0555-3508865      FAX: 0555-3508865      Mobile: +86-18726008309  
Email: masfykj@163.com    jacob@masfykj.com      Website: [www.masfykj.com](http://www.masfykj.com)

## I. Preparation before Loading

1. Carefully remove the outer packaging to prevent damage to the seal for protection.
2. After unpacking, check the attached certificate and product sign, confirm the same as the selected model.
3. Observe the appearance carefully and confirm that the slewing drive is not damaged during transportation, such as serious corrosion, deformation, etc.
4. Use standard industrial solvent to remove grease from the surface of the product before loading, absolutely forbid the use of chlorinated solvent; be careful not to let the solvent flow into the sealing ring or raceway; before filling the grease nozzle or connecting pipe, Plastic plug or screw plug should be removed from the oil hole.
5. The mounting bracket should have enough flatness and stiffness to prevent the product from not working properly due to the deformation caused by the insufficient rigidity of the support.

## 6. Selection of Assembly Bolt

Select appropriate size, quantity and quality rating.

Bolts with full threaded shafts are not allowed; if bolts do not meet the requirements, the operation, life and durability of the rotary reducer will be affected; when excess interface pressure is allowed, appropriate strength and size gaskets may be used, Used bolts, nuts and gaskets are prohibited (use of open rings, open washers, etc.) elastic washers are prohibited.

Class 10.9 high-strength bolts are recommended, and in special cases class 8.8 and 12.9. The nut must be of the same grade or higher grade of the corresponding bolt. For bolt diameter, the height of nut is recommended. For rings made of Z or N normalizing steel, hardened and flat washers are required.

## II. Installation of Slew Drives

The horizontal suspension of the rotary reducer is placed on the mounting support to

Address: No.4, 1669 North Section of Huolishan Road, Cihu High Tech Zone, Anhui, China

TEL: 0555-3508865      FAX: 0555-3508865      Mobile: +86-18726008309  
Email: masfykj@163.com    jacob@masfykj.com      Website: [www.masfykj.com](http://www.masfykj.com)

## Maanshan Fuyong Intelligent Technology Co., Ltd.

ensure that there is no clearance between the transmission mechanism and the installation plane. If there is a gap, the material that can fill the gap shall be used to fill the gap to prevent the deformation of the transmission mechanism after the bolt is tightened;

The mounting bolt shall have an adequate pretightening force, and the pretightening stress on the bolt shall be within the range of 0.6 to 0.7 times the yield point of the bolt. Table 5 below is a recommended table for bolt fastening torque:

Table 1 recommended table for bolt fastening torque

diameter of bolt (mm)	10	12	14	16	18	20	22	24	27	30	33
Moment (N.m)	69	117	185	280	390	560	750	960	1400	1900	2600

After installation, clear the internal and surface debris in time, and ensure that there is no interference with other parts during operation. Welding is not allowed on or near the equipment where this product is installed.

After installation, the rotary reducer is operated in the no-load state to observe whether the operation is flexible or not, and then the running test is carried out under the loading condition. After the running test is completed, the installation bolt is checked to see if there is any loosening. Tighten again if loose.

### III. Use, Storage, and Maintenance

#### 1. Bolt preloading schedule

Under normal working conditions, the pre-tightening force of bolts should be checked once for 1000 hours after installation, and sufficient pre-tension must be maintained for every 5000 hours of operation thereafter. Replace bolts every 7 years or after 14000 hours of work. For the larger impact load of the host, its check the frequency of pre-tightening should be increased accordingly.

#### 2. Rotary reducer lubrication

Sufficient lubrication is necessary for the durability of the engagement of the raceway and worm with the slewing bearing, and the choice of lubricant is determined by the operating conditions such as load, temperature, speed, vibration and so on.

When grease is added, the rotary reducer must be operated at a slow speed for at least

Address: No.4, 1669 North Section of Huolishan Road, Cihu High Tech Zone, Anhui, China

TEL: 0555-3508865      FAX: 0555-3508865      Mobile: +86-18726008309  
 Email: masfykj@163.com    jacob@masfykj.com    Website: [www.masfykj.com](http://www.masfykj.com)

two weeks. Each lubricating hole must be greased.

### 3. Lubrication conditions and cycles

Note: the values in the following table are for reference only. After long term use of rotary reducer, the oil injection period can be adjusted according to the actual situation. Except for solar photovoltaic power generation, the internal injection of molybdenum disulfide extreme pressure lithium-based grease is added to other rotary reducers. Solar photovoltaic internal injection of Mobil grease EP-2.

Table 2 Lubrication conditions and lubrication cycles

Operating conditions (general protection IP54)	Lubrication interval
A dry and clean occasion (a rotary table, a robot, etc)	200 hours or 50 days of work
Outdoor environment (cranes, aerial vehicles, etc.)	50 to 80 hours per job
Engineering lock, steel grab, wood grab	New machine working for 100 hours, replacement of new grease for 10 hours
Harsh environment (sea, mountain, desert, etc)	20-30 hours per work
Extreme conditions (tunnels, mills, wind turbines, etc.)	continuous lubrication
Solar photovoltaic power generation (low speed and no impact)	500 hours or 3 months of continuous work

Special note: please strictly follow our product maintenance manual use and maintenance, for the illegal use of the product and not as required maintenance caused by all losses and liability to the user.

Address: No.4, 1669 North Section of Huolishan Road, Cihu High Tech Zone, Anhui, China

TEL: 0555-3508865      FAX: 0555-3508865      Mobile: +86-18726008309  
 Email: masfykj@163.com    jacob@masfykj.com      Website: [www.masfykj.com](http://www.masfykj.com)