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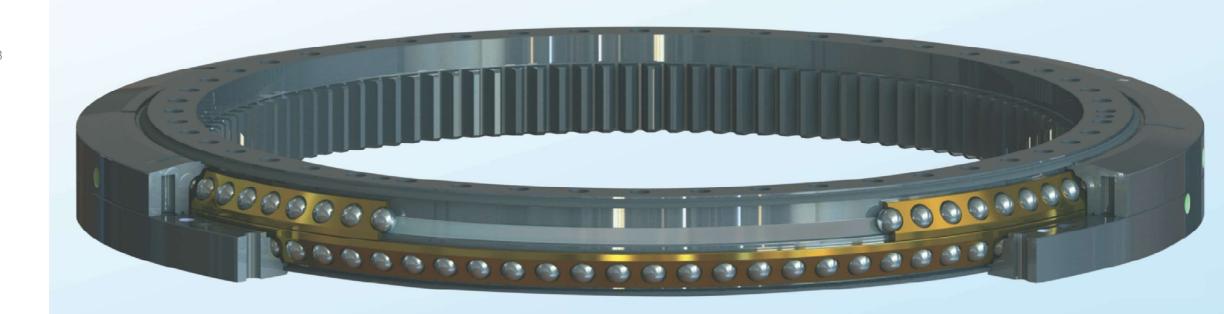
www.hanmakina.com



## **Slewing Bearings**

Project based special solutions

Real time delivery guarantee



"Design To Production"

www.hanmakina.com

## **ABOUT US**

Our company started its activities as Teknik Makina Company in 1965, which was founded by Halil HANTAL for machinery manufacturing in Hasköy-Istanbul.

In 1988, HAN Makina Sanayi Ticaret Ltd. Şti. was founded through the incorporation in the Imes Industria zone in Dudullu-Istanbul and continued to manufacture machinery and spare parts.

Since 1997, the design, development, and production of bearings, rotation systems and related gear sets which are our current production area, are continued in our company.

Our production activities still continue in our manufacturing plant in Sancaktepe-Istanbul, which was put into operation in 2009 and has a closed area of 2600m<sup>2</sup>.

In our new plant in Dilovasi, our production will continue with increased manufacturing and stock capacities. This new plant has a closed area of 13.500m<sup>2</sup> and is ready to start manufacturing.

Regarding our company HAN Makina, all machines in our production line are computer-controlled and have the capability to meet the increased expectations of our customers. The positive feedback received from the comparative assessments of our HAN and equivalent products in the field, encourages us in our efforts to achieve much greater goals.

## **OUR PRINCIPLES**

It is our core principle to be the leading company owing to our advanced bearing design and product quality with the slewing bearings assembled by us.

In line with this principle, HAN Makina incorporates the cutting-edge engineering information and technical developments into its system. In addition to the provision of higher quality and working efficiency, the contribution of the creative ideas of our R&D and engineering team to the productivity of our customers cannot be underestimated.

Every day, we will continue to work to achieve greater successes and introduce more advanced designs with the help of our expanding team.

Today and in the future, HAN Makina will continue increasing its efforts on structuring and production capacity to produce more special bearings.

## **Our Products and Services**

### Slewing Bearing



#### Gears



#### Slew Drive



Other Bearings



Bearing Maintenance and Repairs



#### 1965-1988

Our production as Teknik Makina Company has started in 1965 and HAN Makina was founded in 1988.



#### 1997

The manufacturing area was defined as bearing production.



#### 2009

The production capacity was increased and standards were improved with the introduction of the new manufacturing facility in Sancaktepe-Istanbul.



#### 2015

Over the years, HAN Makina improved significantly its production quality throughout its investments.



#### 2018

Depending on its experienced staff and company culture, HAN Makina achieved great success in the manufactured products and its customer portfolio has continuously expanded. These developments provided new investment opportunities to our company.



#### 2022

As HAN Makina, in our new plant, we will soon start to produce more innovative and more advanced products for the whole world.

## **Slewing Bearing**

Slewing bearings are machine elements with many types and sizes, which withstand alone the affecting axial and radial loads, tilting moment loads coming from any direction and system vibrations, and provid a rotary connection with the least volume.

In these bearings, the loads acting on the race through bolts are transferred to the other race of the bearing in the direction of the force line over the rolling elements. In brief, the slewing bearings provide a rotatable connection depending on the drive system built in its structure, while transferring the loads between two supporting parts.



#### B1100 Series

Ungeared / Internal Gear / External Gear

Single-Row Four Point Contact "type-L" Ball Bearings.

Designed for working under light loads, using in more economic applications, and projects where weight is important.

For example; conveyors belts, bottling and filling plants, etc.



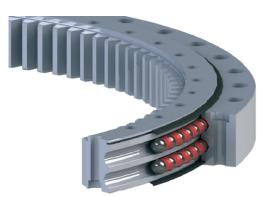
#### B2100 Series

Ungeared / Internal Gear / External Gear

Single-Row Four Point Contact Ball Bearings.

It can work operate under more static load compared to L-type bearings. It can be preferred in applications where the speed is important but the loads on the bearing (especially the overturning moment loads) are not high.

For example; Rotary platforms, automation applications, etc.



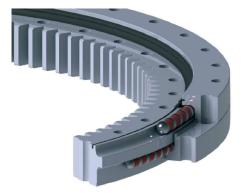
#### B2200 Series

Ungeared / Internal Gear / External Gear

Double-Row Eight Point Contact Ball Bearings.

It can take significantly more loads than one-row four-point contact bearings of the have same bearing and ball diameters. They are used in applications with high static loads.

For example; light - medium excavators, wind turbines, radars, etc.



#### B3200 Series

Ungeared / Internal Gear / External Gear

This type of bearings are 4-point contact bearings with 2 rows of balls consisting of 3 main rings.

For example; construction machinery, harbour cranes, treatment plants, etc.

Han Makina produces turntable bearings in many different types and sizes that can be customized according to needs. Thanks to its many years of experience in bearing production, it offers the mos suitable solutions for customer needs.

Please contact our technical department for more detailed information

#### SM2100 Series

Ungeared / Internal Gear / External Gear

Single-Row Cylindrical Roller Bearings.

They are used in applications that needs low speed, high static loads, high rigidity and stiffness.

For example; robot-automation applications, radars, tower cranes, busine nachines, etc.



#### SM2200 Series

Ungeared / Internal Gear / External Gear

Double-Row Cylindrical Roller Bearings.

They are powerful bearing types, used in applications that is important to carry big axial loads.

For example; special applications.



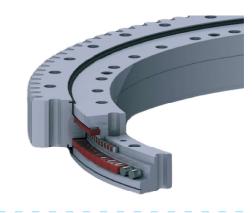
#### SM3300 Series

Ungeared / Internal Gear / External Gear

Three-Row Cylindrical Roller Bearings.

They are designed for heavy loads. It is preferred in applications where low speed is required, which can carry much higher forces in the same installation area compared to other roller bearings and other ball bearings with a row of the same size.

For example; heavy construction machines, tunnel boring machines, heavy cranes.

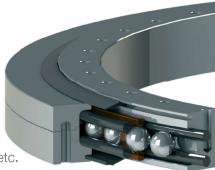


### Wire Slewing Bearing

Ungeared / Internal Gear / External Gear
Wire race bearings are often preferred where weight,
space, and corrosion resistance are important.
The operation of the paring is not like standard bearings
as rolling elements were on hardened bearing steel groove.

Wire races can move in bearing groove and provide flexibility to carry loads. It also provides low rotation torque.

For example; medical equipments, radar systems, aerospace etc.





# Slew Drive

This type of bearings have an input-output rat 👼 provide a smooth start during operation, successfully meet radial loads, axial loads and overturning moment loads, and uses in applications have high torque, require precise positioning and rotational accuracy.





#### Easy Operation and Maintenance

Longer Maintenance Intervals

Pesn't need a maintenance in some applications

Easy lubricate for Advanced Lubrisation Features

Application Areas
Freight Platforms
Forklift Attachments
Human Platforms
On-Board Platforms
Concrete Pumps
Cranes
Satellite Dishes

Satellite Dishes

es space and reduces costs. Besides hydrolic or electric motors can easily mount to slew drives. Hereb





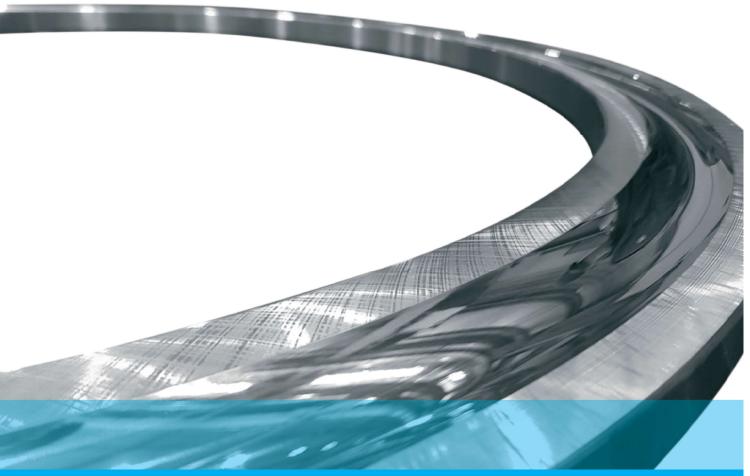




# Gears

Slewing Bearing's gears and bearing drive gears(pinion gears) are manufactured in our company. All of our productions are made in CNC machines, giving importance to quality. Customizations such as special tooth forms, special pressure angles, coating and heat treatment can be made within the needs of the places to be used.





# Other Bearings

Every bearing has many types and sizes as well as specific requirements. Therefore, when choosing a bearing, first consider the appropriate type and size, and then the installation area, load capacity, service life, sealing, etc. Many conditions must be taken into account. such as As HAN Makina, we offer the most suitable type and size bearings for the requests of our customers.







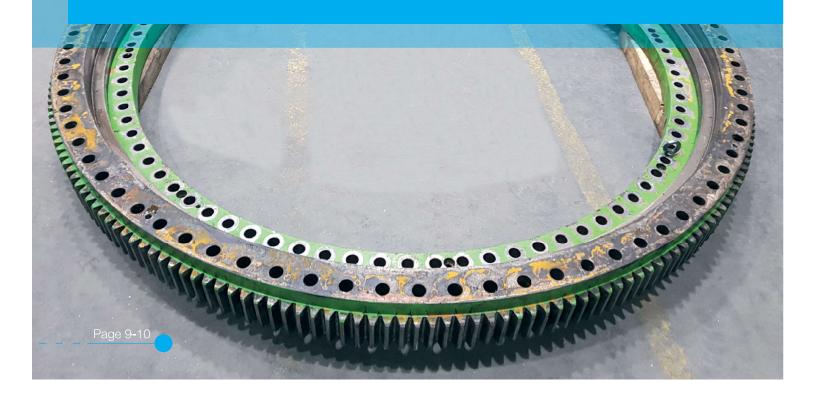


# Bearing Maintenance - Repairs

Besiders to production bearings, our company also performs maintenance-repairs (revisions) of bearings that have not yet completed their service life. In this way, a less costly and faster solution can be offered to users.

Bearings which is sent to our company for repair are controlled carefully if it has critical damage, wear etc. affected the bearing's life or not. If it is possible to repair the bearing, economic country will be ensured by making appropriate repairs.

Surface flatness and wav so, working clearance, sealing elements and other critical status of bearings which is sent to our company for the maintenance are controlled. Making maintenance prevents becoming irreversible of bearings. With this in mind, users can avoid the high cost of a new bearing.



# Raw Material

Material quality is of high importance for a rotary table bearing with a long operating life. The seamless hot rolling of the Used materials to produce bearings are forged seamless ring rolling materials. That method of manufacture increases the physical properties, gives strength and flexibility.

Bearing materials may change according to users needs. The most used material for our slewing bearing manufacturing is hot rolled, seamless, hardened and quenched 42CrMo4 (DIN 1.7225)

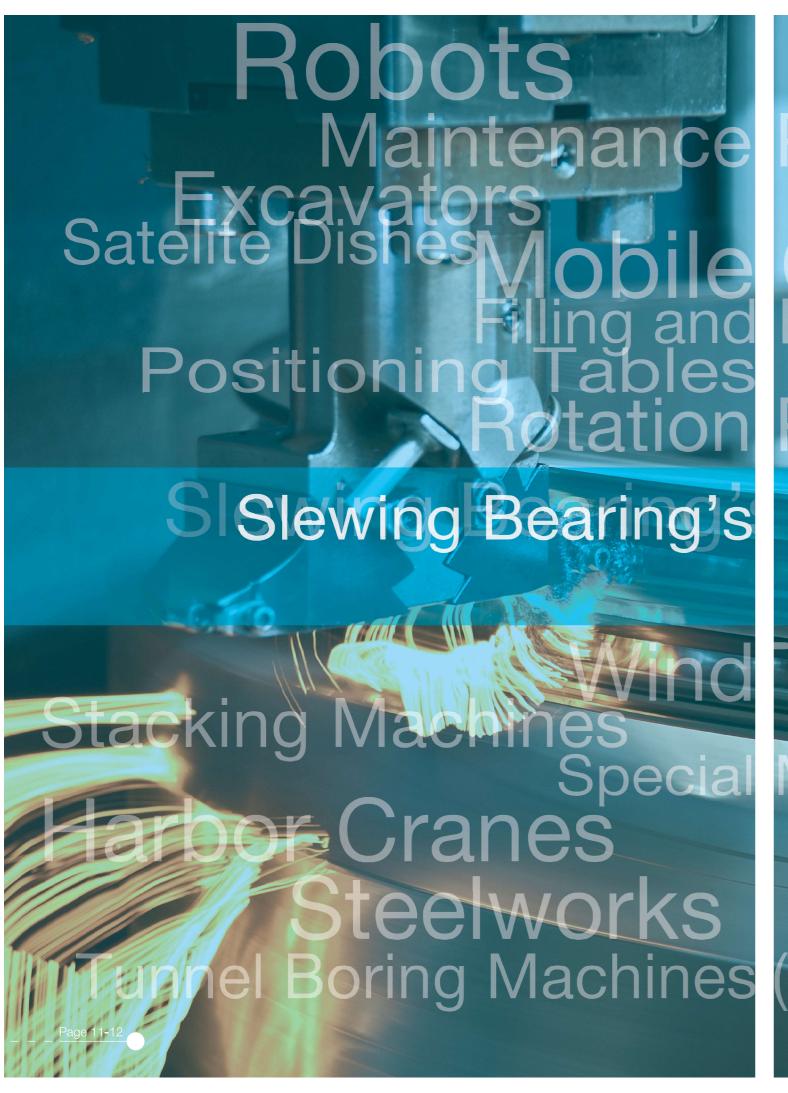














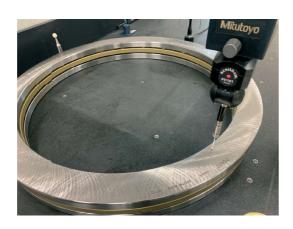




### Hardness Measurement



Dimensional Measurement



## Roughness Measurement



Nondestructive Testing



Gear Measurement



