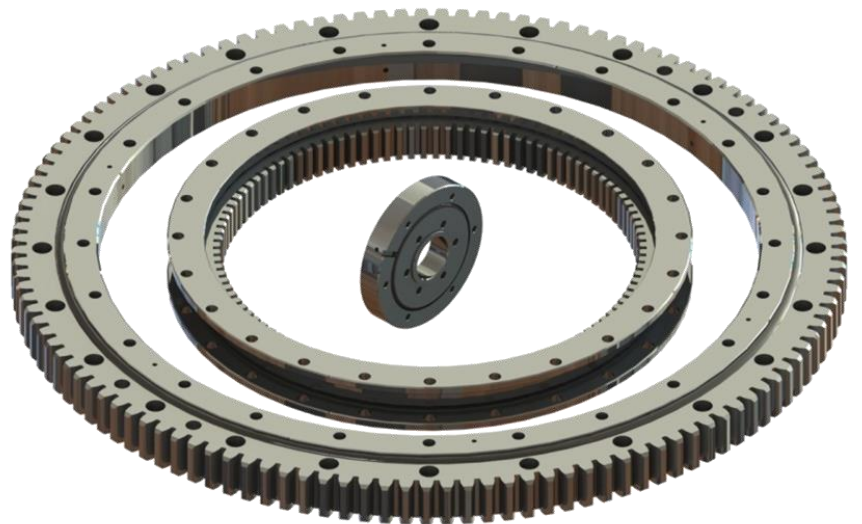




DS 0002 SLW 2014

DISTITEC Srl

Slewing rings for steel industry





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Catalog **N° 02 DS 0002 SLW** , JENUARY 2014

INTRODUCTION

*This catalogue provides an overview of the products made – partly in outsourcing – by **DISTITEC S.R.L.** and employed in the steel and mechanical industry. The bearings described in this catalogue are mainly used in the flattening and straightening lines of steel sheet, stainless steel sheet and aluminum sheet, but also in rolling mills on the rolling cylinder necks, in overhead conveyors and in many applications of the mechanical industry such as lifting vehicles, naval cranes, palletizers, solar panels, wind turbines, wood processing machines, radars, bottling machines, revolving lifting clamps, welding robots, revolving tables and others.*

***DISTITEC S.R.L.** relies on qualified and certified technicians with a long experience in this field and equipped with advanced machine tools to produce high precision mechanical parts.*

***DISTITEC** performs the design, assembling and testing of its products and provides an efficient technical assistance to the customer. After sizing the bearings and executing the construction drawings we follow the order progress: the components are worked, checked, tested and assembled. Finally, we execute the final testing. If the assembled bearing is in accordance with the technical requests and the roller bearing standards, it is ready to be packed and shipped. Our stock can meet the customers' requests with a short delivery time.*

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INTRODUCTION

SLEWING RINGS



The slewing rings are used for several applications in many industrial sectors, whenever it is required to rotate a structural part with reference to another one around a univocal axis, thus ensuring the connection between the two parts. **DISTITEC S.R.L.** makes slewing rings in several variants, which meet almost every request from the market. The application sectors of our slewing rings range from the mining industry to the off-shore technology, from the steel industry to the more traditional handling and lifting of materials, as well as the mechanical industry in general.

The products are built in compliance with the general standards related to roller bearings; the employed materials and treatments ensure good function and long lasting. The photos show some examples of the use of our slewing rings.



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6-7 *Slewing rings, available executions*

8-9 *Technical specifications of slewing rings*



*This catalogue only shows the numerous standard executions that **DISTITEC S.R.L.** can provide upon request also in small quantities (single pieces), as well as the minimum and maximum size that we can provide according to the machinery capacity. Also, the technical characteristics of the products are briefly explained.*

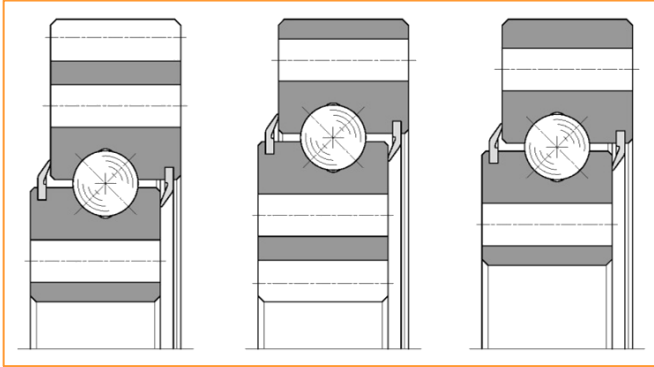
For more detailed information please refer to the dedicated catalogue of the slewing rings, or visit our website www.distitec.it / www.distitec.com for further technical information and feasibility requests please contact our technical department.

SLEWING RINGS



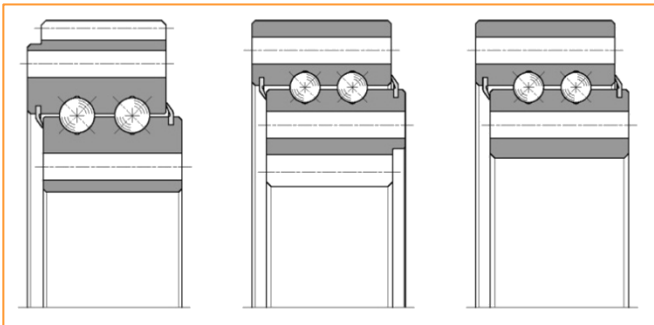
EXECUTIONS AVAILABLE

FULL SECTION SLEWING RINGS, SINGLE-ROW OF BALLS



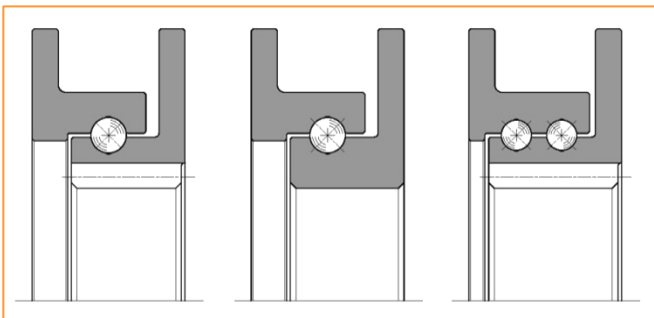
Production range	Inner diameter	Outer diameter	Thickness	Module
	mm			n°
Minimum size	289	456	59	5
Maximum size	6442	7027,2	221	16

FULL SECTION SLEWING RINGS, DOUBLE-ROW OF BALLS



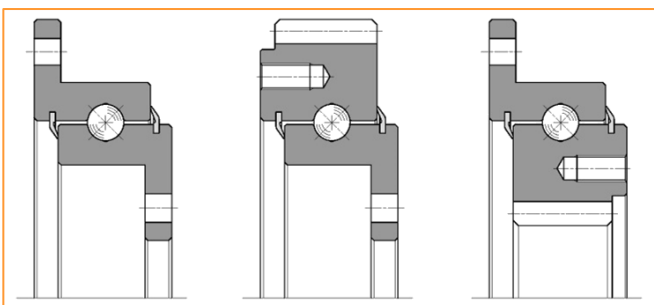
Production range	Inner diameter	Outer diameter	Thickness	Module
	mm			n°
Minimum size	224	432	92	5
Maximum size	1779	2178	156	15

FLANGED SLEWING RINGS WITH BALLS



Production range	Inner diameter	Outer diameter	Thickness	Module
	mm			n°
Minimum size	233	401	36	5
Maximum size	1310	1598	90	10

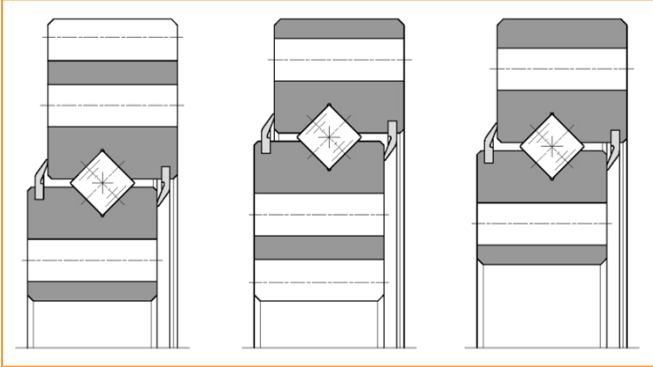
FLANGED / FULL SECTION SLEWING RINGS WITH BALLS



Production range	Inner diameter	Outer diameter	Thickness	Module
	mm			n°
Minimum size	233	401	36	5
Maximum size	1310	1598	90	10

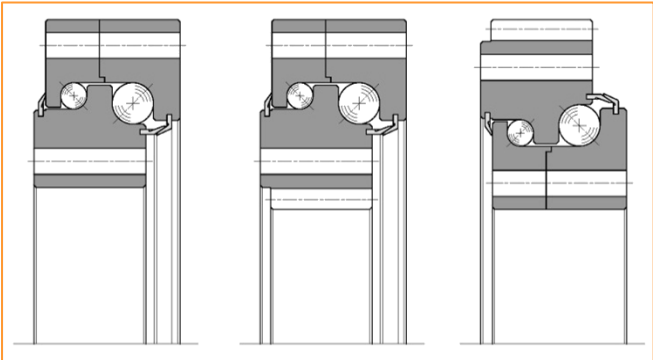
AVAILABLE EXECUTIONS

CROSSED ROLLER SLEWING RINGS



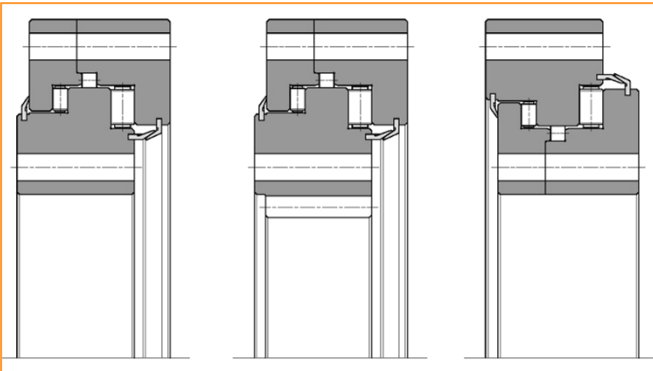
Production range	Inner diameter	Outer diameter	Thickness	Module
	mm			n°
Minimum size	304	475	55	4
Maximum size	2809	3296	130	20

SLEWING RINGS, DOUBLE ROW OF BALLS



Production range	Inner diameter	Outer diameter	Thickness	Module
	mm			n°
Minimum size	679	863	77	6
Maximum size	3970	4500	187	20

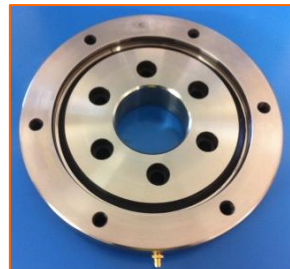
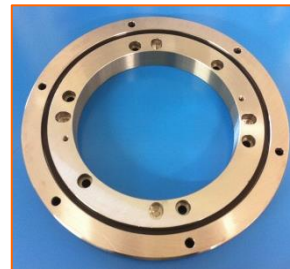
SLEWING RINGS WITH THREE ROW OF CYLINDRICAL ROLLER



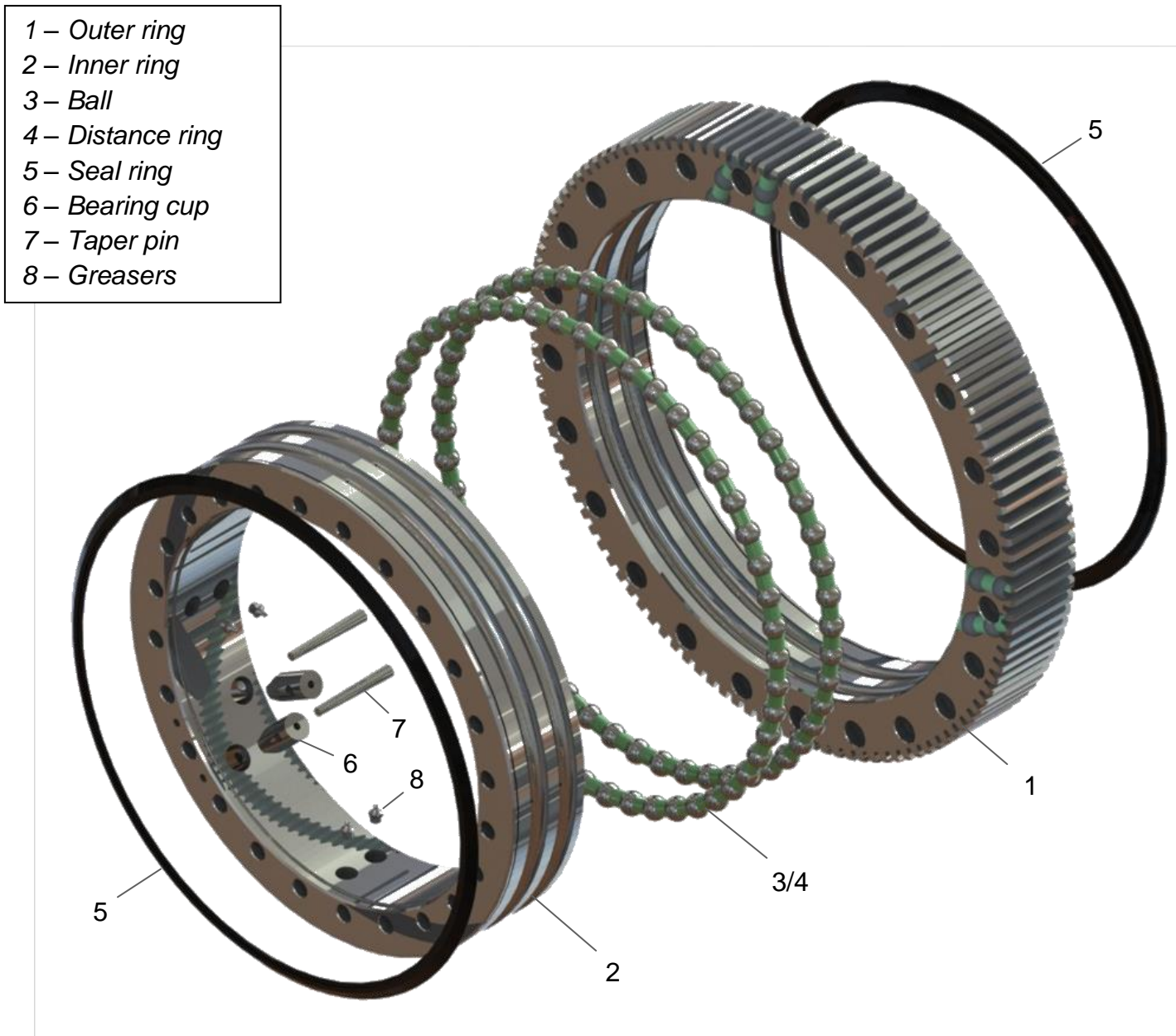
Production range	Inner diameter	Outer diameter	Thickness	Module
	mm			n°
Minimum size	1032	1397	132	12
Maximum size	6470	7147	268	24

SPECIAL EXECUTIONS

The large number of machines at our disposal allow us to produce slewing rings with any kind of technical characteristics, even the most particular.



TECHNICAL SPECIFICATIONS



DISTITEC'S slewing rings have the following technical features:

Outer and inner rings made mainly of **C45** carbon steel (UNI 7845) or **42CrMo4** alloy steel (UNI 7846), both in the initial reclaimed condition. The use of a material or another depends on the required mechanical characteristics, including resistance and hardness, but also on technological factors. The 42CrMo4 provides higher thickness of the hardened layer of the rolling tracks, and so higher bearing capacities. The C45 (or equivalent) is the material in which most standard bearings with medium-small diameters are built; the 42CrMo4 is used for medium-large diameters as well as many special executions. The induction hardening to which the sliding tracks are subject is necessary to increase the bearing capacity and to protect the tracks from plastification effects caused by the contact pressure with the rolling elements. After this treatment the hardness of the sliding tracks of the rolling bodies can be as high as **62 HRC**. The hardening thickness varies depending on the size and therefore on the loads to bear.

TECHNICAL SPECIFICATIONS

Rolling elements: the balls, built according to DIN 5401, are used for bearings with four contact points, whereas the cylindrical rollers, built according to DIN 5402, are used for crossed roller bearings. Both are made in 100Cr6 core hardening steel (UNI 3097). The hardness of these elements reaches 64 HRc.

The distance rings: are made in materials with high mechanical characteristics such as Nylon or P.T.F.E. (Teflon). They are used to keep the rolling elements separate, thus avoiding the contact between them. Distance rings may not be included in applications where the accepted loads of the slewing ring must be high.

The **seal rings** or **O-rings** are produced in NBR nitrile elastomer. The seal rings prevent the introduction of dirt, dust and humidity. The proper lubrication increases the effectiveness of the seal.

Grease: the slewing rings are supplied with the initial lubrication of the ball or roller sliding track. The use and maintenance manual we provide with the products gives information about the specific grease used as well as the instructions for the proper periodic lubrication.

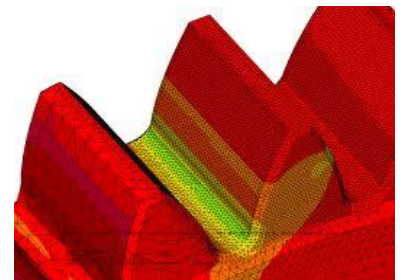
Greasers: Distitec's slewing rings are supplied with the dedicated greasers, located in the housings along the diameter where the tothing is not present, or where required by the client in case of special executions.

Straight tooth cylindrical tothing (see photo): this tothing is executed in compliance with all the relevant technical requirements. The parameters related to the tothing are marked on the drawing released by Distitec,

In order to enable the correct execution of the pinion that will mesh with the tothing. The standard surface hardness of the reclaimed material being used can be as high as 30 HRc (42CrMo4); this hardness value may not always be acceptable to preserve the tothing life in some applications.

It may be advisable to execute the induction hardening treatment on the tothing too in the presence of some conditions, such as a high rotational torque which generates high strain and friction on the tooth, high rotational speed, unfavorable environmental conditions with presence of dust or other abrasive elements, or the need to extend the life cycle of the slewing ring as much as possible. The treatment can be executed only on the side or on the side and the bottom of the tooth, according to the loads and the application type. The maximum surface hardness that can be reached is 60 HRc.

For more detailed information about tolerances, normal or reduced clearances, surface treatments etc, please refer to the dedicated catalogue of slewing rings or contact our technical department.





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