

## PRODUCT CATALOGUE

# SLEWING BEARING

*Rotational Solutions*



TENSUN MACHINERY CO., LTD



## Global Competitive Cost & World Class Quality

### Slewing bearings –

TENSUN slewing bearings prove their value each and every day in applications such as wind turbines, cranes, excavators, mechanical engineering plants of all kinds and tunneling machinery. The functional diversity of our slewing bearings is already apparent in their dimensions in sizes up to 5 meters in diameter.

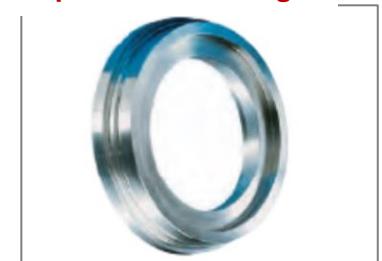
### Seamless Rolled Ring-

Rolled rings are important components in a greatly varying range of applications. They play a key role in slewing bearings, large gear units, large valves, production facilities, sprocket wheels, wind turbines, and pipeline construction. They are seamlessly rolled. A ring of this type can easily weigh as much as 12 tons.

**Up to 5 m Diameters**



**Up to 12 t unit Weight**





## Construction machinery

Tensun slewing bearings are used in construction machinery of all types the world over. The construction engineering, road construction and maintenance, flow type lifting handling operation and various construction projects need necessary for comprehensive mechanized construction engineering machinery and equipment. The slewing bearing is the key in this application.

### Cranes

Whether port, off shore or construction cranes – Tensun supplies right slewing bearing for every application.

These bearings are customer designed and built in close cooperation with each customer.

Our target is build long term relationship with Customers

### Energy

Our commitment in the field of energy technology has made us a reliable partner for the wind, solar, and hydropower industries since their beginnings.

Designed for utmost reliability and long-lasting quality, The slewing bearings and rings from Tensun are core parts.

### Transport and materials handling technology

Tensun provides solutions for each special, individual need in the field of transport and materials handling technology.

When it comes to tunnel engineering, we deliver the ideal cutting-head bearing for every type rock.

### Mechanical engineering

Tensun slewing bearing is widely used in Mechanical engineering field. Optimal design, excellent weight-to-power ratio, open centers, and integrated gearing make slewing bearings the ideal structural components and be reliable partner.



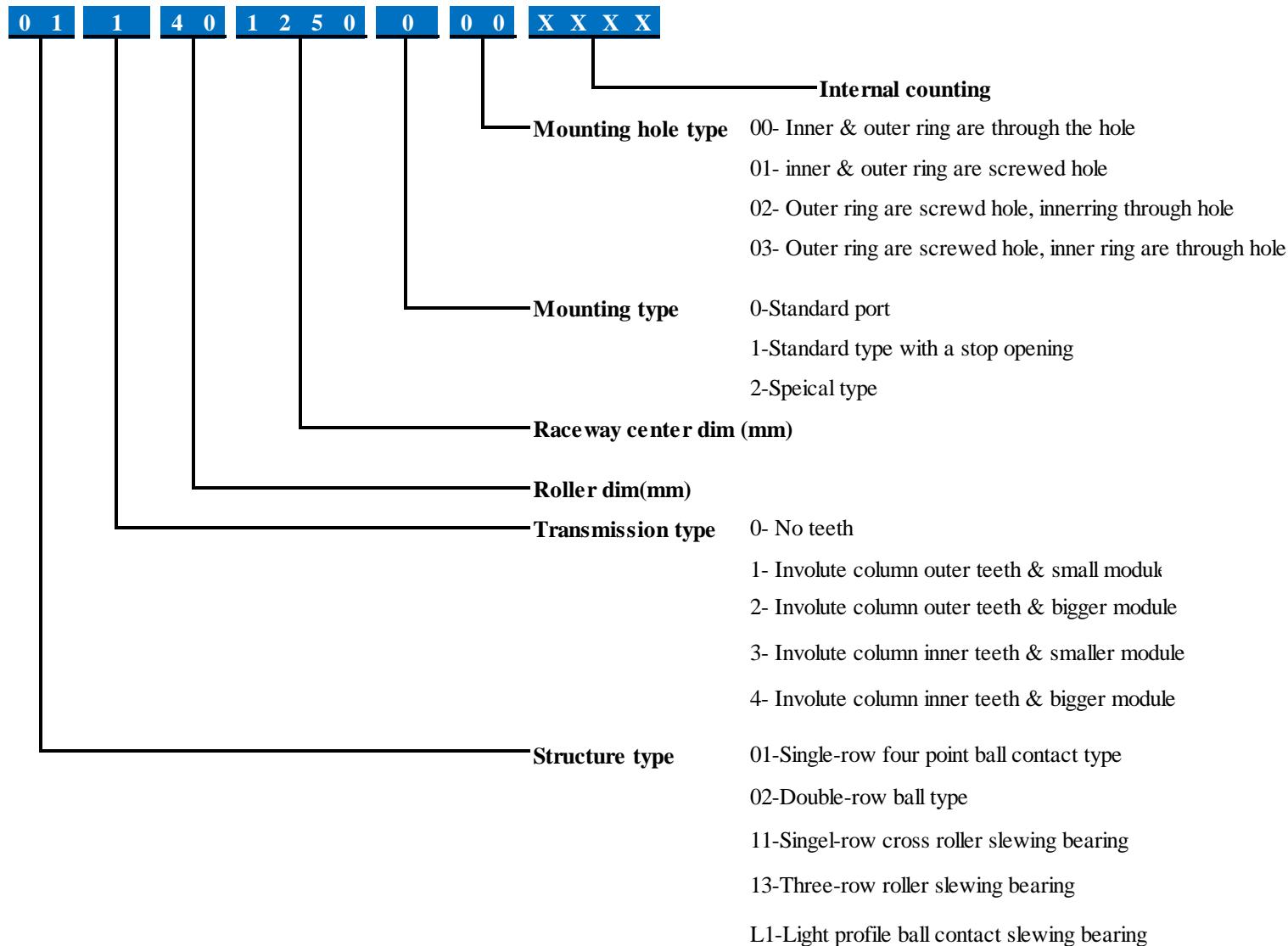
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## 1. Coding System

Product Coding System JB/T2300-1999



## 2. Basic Knowledge

### 2.1 Structure

Slewing bearing may have many types, but the structure composed looks same.

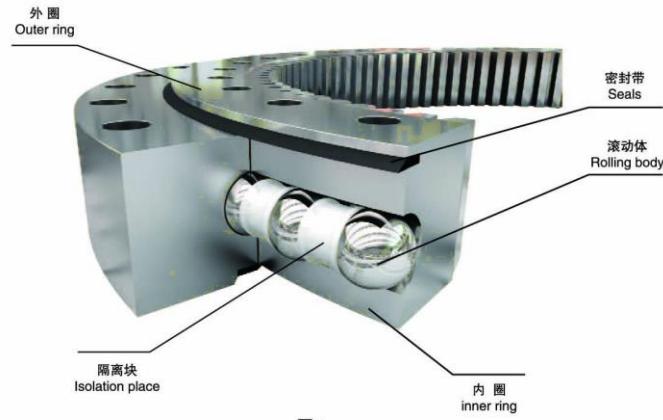


图1

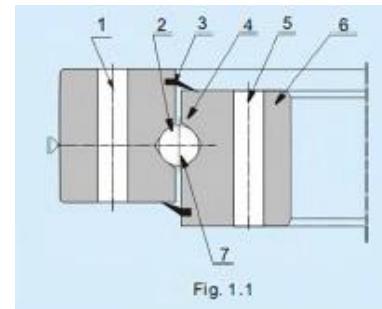
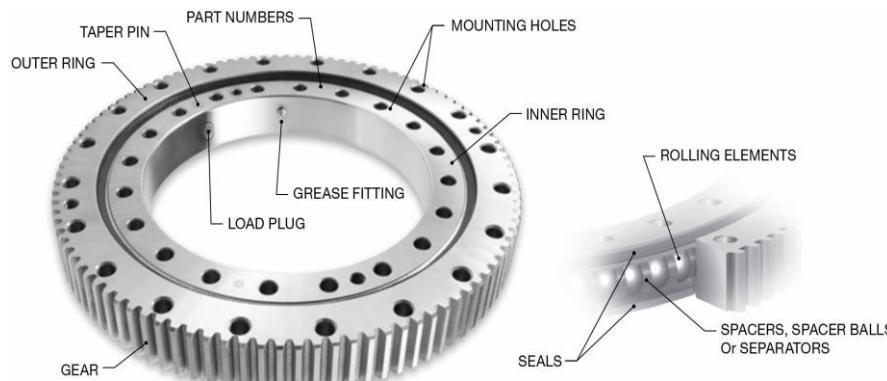
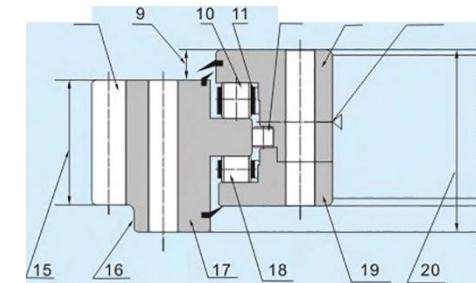


Fig. 1.1



#### Definition

1. Center circle diameter of outer mounting holes
2. Rolling elements
3. Seals
4. Raceway
5. Center circle diameter of inner mounting holes
6. Inner ring
7. Center circle diameter of rolling elements
8. Outer gear
9. Height difference between upper end face of inner ring and that of the outer ring
10. Main thrust rollers
11. Cage (spacer)
12. Radial roller
13. Main thrust inner ring
14. Oil hole
15. Tooth width
16. External surface of outer ring
17. Outer ring
18. Minor thrust roller
19. Minor thrust inner Ring
20. Overall height

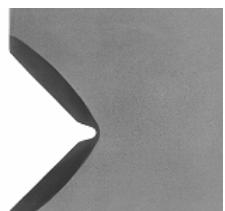
## 2.2. Raceway & Gear Hardening



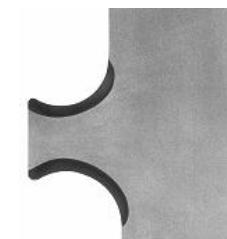
Raceways in a single-row ball



Raceways of a nose ring in a three-row roller bearing slewing



Raceways in a single-row roller



Raceways of a nose ring in a double-row ball bearing



Raceway of a supporting ring in a double-row ball bearing slewing ring

### Raceway Hardening

The bearing types described here are provided with induction-hardened raceways. This ensures good reproducibility of hardening specifications and, therefore, consistent quality. The hardening coils used have been adapted to the various raceway designs. They are configured so as to guarantee the load capacities specified for the respective rolling element sizes.

Our patented coil shape ensures a good hardness pattern in the raceways and in the transition radii in three-row roller bearings.

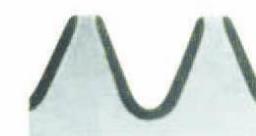
Hardness of Raceway of ring after hardened is 55HRC~62HRC, Quenching layer  $\geq 3$  mm.

### Gear Hardening

The heat treatment of the gear is in generally normalizing or hardening and tempering state. According to application, the gear can be treated full teeth quench or tooth surface quench only and tooth surface and tooth root quench.



全齿淬火  
Full tooth quenching



齿面齿根淬火  
Tooth face and tooth root quenching



齿面淬火  
Tooth face quenching

## 2.3 Material

The basis of bearing quality is material, which, has great influence on bearing performance, life and reliability. The rolling surface of components carries periodical alternating loads during operation, extremely high contact stress is generated on the contact position due to the small contact area between components will fatigue under the repeated actions of the stress, which results on the fatigue flake. Meanwhile, both rolling friction and sliding friction exist at the component contact position. Therefore, the bearing material should have the following performances:

- High contact fatigue intensity.
- High flexibility limit.
- High hardness obtained.
- Good abrasion resistance and anticorrosion.
- Good structure stability.
- Good machining property.
- Good impact resistance.

### Inner ring and outer ring

Tensun use 50Mn or 42CrMo for slewing bearing rings.

The hardness of the working surfaces such as the raceway surface may have a surface hardness up to 55-60 HRC after hardening.

material	chemical composition %									
	C	Si	Mn	Mo	Cr	Ni	S	P	Cu	
50 Mn	0.48~0.56	0.17~0.37	0.70~1.00	-----	≤0.25	≤0.25	≤0.035	≤0.035	≤0.25	

material	chemical composition %									
	C	Si	Mn	Mo	Cr	Ni	S	P	Cu	
42CrMo	0.38~0.45	0.17~0.37	0.50~0.80	0.15~0.25	0.90~1.2	≤0.30	≤0.035	≤0.035	≤0.30	

### Ball & Roller

Materials for rolling elements are selected according China standard ball GB/T 308 and roller GB/T 4662 which are produced from GCr1 OR GCr15SiMn. The heat treatment specification is accordance with GB/T1255.

D <sub>w/mm</sub>	Grade of Ball
≤30	G40
>30~50	G60
>50	G100

### Seal

The sealing material used in TENSUN slewing bearing is grease/oil resistant and manufactured from nitrile rubber, and fluorine rubber etc. The seals are produced in accordance with HG/T 2811 (Material for Lip Type Seal Ring of Slewing Shaft). Other material also can be used according customer requirements. Please contact TENSUN as needed.

OPERATING CONDITIONS	RANGES
"Normal" - 25° C + 70°C	NITRILE-BASED elastomer
"Extreme" 0<-30° C; +70°C<0<200°C	FLUORE-based ELASTOMER
"Special" Various physical or chemical aggressive agents	NITRILE-BASED modified or others

### Spacer Block

TENSUN standard product use the spacer block produced by Polyamide 1010, which is made comply with HG/T 2349.

## 2.4 Bearing Selection

### General:

The final and binding selection of a large-diameter slewing bearing is principally made by us.

Selection determines the correct dimensioning of bearing races, gearing and bolt connections.

We, therefore require that you complete our ***Application Questionnaire*** to provide us with all necessary data to help in selection of the appropriate bearing.

The most important data for choosing the right bearing are:

1. Applied loads
2. Collective loads with respective time percentages
3. Speed or number of movements and angle per time unit together with the relating collective loads
4. Circumferential forces to be transmitted by the gearing
5. Bearing diameter
6. Other operating conditions.

Full completion of the ***Application Questionnaire*** will enable us to largely respect your requests and prepare a technically adequate and economical bearing proposal.

Whenever possible, the completed ***Application Questionnaire*** should be submitted to us during the planning stage, but no later than the order placement to allow for confirmation of the bearing.

### Application Questionnaire

Customer:	Add.:			
Title:	Dept.:			
Tel:	Fax:			
<b>Applications:</b>	Axis of rotation	Installation type		
	Horizontal <input type="checkbox"/> Vertical <input type="checkbox"/>	Horizontal <input type="checkbox"/> Vertical <input type="checkbox"/>		
<b>Gear type:</b>	<b>Operation</b>	<b>No. of revolutions [min-1]</b>		
External <input type="checkbox"/>	only for positioning <input type="checkbox"/>	Normal:		
Internal <input type="checkbox"/>	intermittent operation <input type="checkbox"/>	Maximal:		
No gear <input type="checkbox"/>	continuous operation <input type="checkbox"/>			
<b>Load data</b>				
<b>Bearing load</b>  <b>Loading type</b>	A	B	C	
	Max work load	Max test load	catastrophic load ( shutdown state )	
Axial load parallel to rotating axle				KN
Radial load vertical to the rotating axle ( without gear meshing force )				KN
Moment by axial load				KN.m
Moment by radial load				KN.m
Total moment				KN.m
<b>Slewing bearing turning torque KN.m</b>			<b>Drive pinions:</b>	
Normal: <input type="checkbox"/>	Max: <input type="checkbox"/>		Number: <input type="checkbox"/>	Position: <input type="checkbox"/>
<b>Slewing bearing type and dimension</b>				
Type: Light type <input type="checkbox"/> Single-row ball <input type="checkbox"/> Double-row ball <input type="checkbox"/> Cross roller <input type="checkbox"/> Three-row cross roller <input type="checkbox"/>				
Gear: Without <input type="checkbox"/> Inner <input type="checkbox"/> Outer <input type="checkbox"/>				
Dimension: OD : mm <input type="checkbox"/> , ID: mm <input type="checkbox"/> , H: mm <input type="checkbox"/>				
Existing Model (refer catalogue):				

## Load capacity:

Generally, when the rotational diameter and section dimension are same then the static load capacity from high to low is:

Three-row roller bearing;

Four-point contact ball bearing;

Cross roller bearing.

Double-row ball bearing.

When the dynamic loading capacities are taken into account the rankings are as follows:

Three-row roller bearing;

Cross roller bearing;

Four-point contact ball bearing;

Double-row ball bearing.

## Service life

In slewing bearing technology, theoretical life is a well-known term. Due to a multitude of influential factors, nominal life acc. to DIN/ISO 281 cannot in practice be taken as an absolute value but as a *reference value* and design guide. Not all bearings will reach their theoretical life, although most will generally exceed it, often by several times.

Theoretical life criteria cannot be applied directly to large-diameter bearings, particularly with bearings performing intermittent slewing motions or slow rotations.

In most applications the speed of rotation in the race will be relatively low. Therefore, the smooth operation and precise running of the bearing are not adversely influenced by wear or by the sporadic occurrence of pittings. It is,

therefore, not customary to design large-diameter bearings destined for slewing or slow rotating motion on the basis of their theoretical life. For better definition, the term "service life" was introduced.

A bearing has reached its service life when torque resistance progressively increases, or when wear phenomena have progressed so far that the function of the bearing is jeopardized.

The service life determined with the aid of the curves shown is only valid for bearings carrying out oscillating motions or slow rotations. This method is not applicable to:

bearings for high radial forces,

bearings rotating at high speed,

bearings having to meet stringent precision requirements.

In such cases **TENSUN** will carry out the calculations based on the load spectra including the speed of rotation and percentage of operating time.

We must clearly distinguish between the operating hours of the equipment and the actual rotating or slewing time. The various loads must be taken into account in the form of load spectra and percentages of time. For service life considerations another influential factor not to be neglected is the slewing angle under load and without load.

For an approximate determination of the service life of a bearing, service life curves are shown next to the static limiting load diagrams. This does not apply to Single row ball bearing and light profile bearing.

These service life curves are based on 30,000 revolutions under full load. They can also be employed to determine the service life with different load spectra or to select a bearing with a specified service life.

## Speed Limit

The Ultimate speed of various slewing bearing in normal case as below:

Cross roller: 24000~35000 n. Dm

Rolling-ball type:40000~65000 n.Dm

Rolling ball with holding shelf:70000~130000 n. Dm

## 2.5 Tolerance

### Dimensional Tolerance

Dimensional Tolerance of TENSUN slewing bearing conforms to the standard JB/T 10471<Rolling Bearing Slewing Bearing) as below table.

d <sup>a</sup> or D <sup>a</sup> (mm)		△Ts		△ds <sup>b</sup>			△Ds <sup>b</sup>		
Over	Incl.	0	6	5	0	6	5		
150	400	±600							
400	630	±800							
630	1000	±1000	H9	H8	H7	h9	h8	h7	
1000	1600	±1200							
1600	2000	±1400							
2000	2500	±1600	H10	H9	H8	h10	h9	h8	
2500	4000	±1800							
4000	6300	±2000							
a Check △Ts and △ds according to d from the table, and check △Ds according to D from the table.									
b None positioning diameter △ds and △Ds could be according to the stipulation of H12 or h12 separately.									

### Surface Roughness

The surface Roughness of TENSUN slewing bearing conforms to the standard JB/T 1047 <Rolling Bearing Slewing Bearing) as below table

d <sup>a</sup> or D <sup>a</sup> (mm)		Bore Surface <sup>b</sup>			Outer Diameter Surface <sup>b</sup>			End face		
Over	Incl.	0	6	5	0	6	5	0	6	5
150	500	2	1.25	1	2	1.25	1	1	0.8	0.63
500	2000	2.5	1.6	1	2.5	1.6	1	1.25	0.8	0.63
2000	6300	3.2	2.5	1.25	3.2	2.5	1.25	1.6	1.25	1
a Check roughness of bore surface and end face according to inner diameter d, and check outer diameter surface according to outer diameter D.										
b When bore surface and outer diameter surface with non-positioning diameter can not comply with this table.										

### Running Accuracy

The running accuracy of TENSUN slewing bearing s in accordance with the standard JB/T 1047 <Rolling Bearing Slewing Bearing) as below table

Structure	Running Accuracy	Tolerance Class	D <sup>a</sup> or d <sup>a</sup> (mm)								
			Over Incl.	150 400	400 630	630 1000	1000 1600	1600 2500	2500 4000	4000 6300	
Four-point contact ball bearing	Sia	max	0	120	160	200	250	320	400	500	
	Sea		6	62	80	100	120	160	200	250	
	Kia		5	45	55	70	90	110	140	180	
	Kea		0	180	220	280	360	450	560	710	
	Fria		6	90	110	140	180	220	280	360	
	Frea		5	62	80	100	120	160	200	250	
	Sia	max	0	280	340	420	480	630	750	850	
	Sea		6	220	250	280	360	420	560	630	
	Kia		5	160	180	220	250	320	420	480	
	Kea		0	150	190	240	300	380	480	600	
	Fria		6	75	95	120	150	190	240	300	
Double-row Ball Bearing	Sea	max	5	53	67	85	105	140	170	220	
	Kia		0	210	280	340	420	560	670	850	
	Kea		6	105	140	170	220	280	340	420	
	Fria		5	75	95	120	150	190	240	300	
	Frea		0	280	340	420	480	630	750	850	
	Sia	max	6	220	250	280	360	420	560	630	
	Sea		5	160	180	220	250	320	420	480	
	Kia		0	105	140	170	220	280	340	420	
	Kea		6	53	67	85	105	140	170	220	
	Fria		5	38	48	60	75	95	120	150	
Cross Cylindrical Roller Bearing	Sea	max	0	150	190	240	300	380	480	600	
	Kia		6	75	95	120	150	190	240	300	
	Kea		5	53	67	85	105	140	170	220	
	Fria		0	250	280	360	400	500	630	710	
	Frea		6	180	220	250	300	360	480	530	
	Sia	max	5	140	160	180	220	280	360	400	
	Sea		0	90	110	140	180	220	280	360	
	Kia		6	45	55	70	90	110	140	180	
	Kea		5	32	40	50	62	80	100	120	
	Fria		0	120	160	200	250	320	400	500	
Three-row Cylindrical Roller Combined Bearing	Kea	max	6	62	80	100	120	160	200	250	
	Fria		5	45	55	70	90	110	140	180	
	Frea		0	250	280	360	400	500	630	710	
	Sia	max	6	180	220	250	300	360	480	530	
	Sea		5	140	160	180	220	280	360	400	
	Kia		0	90	110	140	180	220	280	360	
a Check the value of running accuracy for inner ring or outer ring from the table according to the inner diameter d or the outer diameter D.											
b When D or d is not positioning diameter, no requirement for Kia and Kea.											

### 3. Single-Row Four-Point Contact Ball Slewing Bearing

#### Slewing Bearing

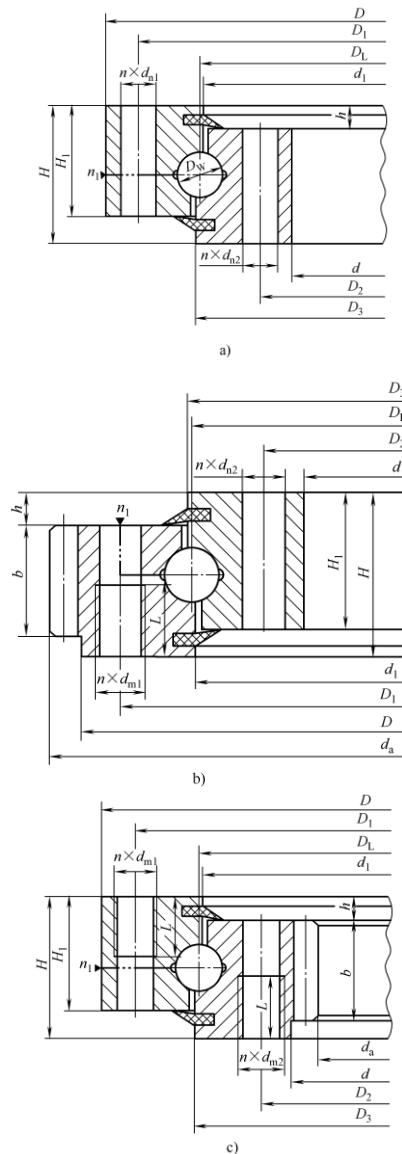
The single row four-point contact ball slewing rings is composed of two seat rings, which design in compact structure and light weight, steel ball contact with the circular raceway at four points and it can bear the axial force, radial force and the tilting moment at the same time.

The full ball type has a larger load carrying capacity. In some situations, this type would be selected for heavy loading applications. However, this design has a high frictional resistance, this could cause nicks on ball surface. This contact ball design slewing bearing is suitable for tilting moment and small frictional resistance applications. The contact mounting surface must have adequate radial rigidity. The mounting needs will suit mounting holes that are designed as straight hole, counter hole, thread blind hole, or thread through hole and etc.

This type is widely used for slewing conveyer, welding manipulator, light & medium duty crane, excavator, and other construction machinery.



Without Gear  
Internal Gear  
External Gear





No.	Model			Dimension			Mounting dimension					Structural dimension				Gear		Ext Gear		Int Gear						
	Without Gear	Ext Gear	Int Gear	D	d	H	D <sub>1</sub>	D <sub>2</sub>	d <sub>h1</sub> d <sub>h2</sub>	d <sub>m1</sub> d <sub>m2</sub>	L	n	n <sub>1</sub>	D <sub>3</sub>	d <sub>1</sub>	H <sub>1</sub>	h	b	m	d <sub>a</sub>	z	d <sub>a</sub>	z			
							mm					mm					mm									
1	010.20.200	011.20.200	—	280	120	60	248	152	16	M14	28	12	18	201	199	50	40	300	98	—	—					
2	010.20.224	011.20.224	—	304	144		272	176						225	223	321		105	—	—						
3	010.20.250	011.20.280	—	330	170		298	202						251	249	352		86	—	—						
4	010.20.280	011.20.280	—	360	200		328	232						281	279	348		94	—	—						
5	010.25.315	011.25.315	013.25.315	408	222	70	372	258	20	M16	32	2	20	316	314	60	50	435	85	190	40					
6	010.25.355	011.25.355	013.25.355	448	262		412	298						356	354	475		93	235	49						
7	010.25.400	011.25.400	013.25.400	493	307		457	343						401	399	528		86	276	48						
8	010.25.450	011.25.450	013.25.450	543	357		507	393						451	449	576		94	324	56						
9	010.30.500	011.30.500	013.30.500	602	398	566	434	501	M16	32	20	4	498	501	70	10	5	629	123	367	74					
10		012.30.500	014.30.500												628.8	102	368.4	62	6	628.8	102	368.4	62			
11	010.30.560	011.30.560	013.30.560			662	458	626	494	561	24	4	499	558	631	70	60	5	629	123	367	74				
12		012.30.560	014.30.560												628.8	102	368.4	62	6	689	135	427	86			
13	010.30.630	011.30.630	013.30.630	732	528	696	564	628	M16	32	24	4	628	631	70	60	6	689	135	427	86					
14		012.30.630	014.30.630												688.8	112	428.4	72	6	772.8	126	494.4	83			
15	010.25.630	011.25.630	013.25.630			732	528	696	564	559	24	4	629	631	70	60	8	774.4	94	491.2	62	8	774.4	94	491.2	62
16		012.25.630	014.25.630												772.8	126	494.4	83	6	772.8	126	494.4	83			



No.	Model			Dimension			Mounting dimension					Structural dimension				Gear		Ext Gear		Int Gear			
	Without Gear	Ext Gear	Int Gear	D	d	H	D <sub>1</sub>	D <sub>2</sub>	d <sub>h1</sub> d <sub>h2</sub>	d <sub>m1</sub> d <sub>m2</sub>	L	n	n <sub>1</sub>	D <sub>3</sub>	d <sub>1</sub>	H	h	b	m	d <sub>a</sub>	z	d <sub>a</sub>	z
				mm								mm								mm			
15	010.30.710	011.30.710	013.30.710	812	608	80	776	644	18	M16	32	24	4	711	708	70	60	6	850.8	139	572.4	96	
		012.30.710	014.30.710															8	854.4	104	571.2	72	
16	010.25.710	011.25.710	013.25.710	922	678		878	722							801	798		8	850.8	139	572.4	96	
		012.25.710	014.25.710																854.4	104	571.2	72	
17	010.40.800	011.40.800	013.40.800	1 022	778		978	822							30	901	898	10	90	966.4	118	635.2	80
		012.40.800	014.40.800																968	94	634	64	
18	010.30.800	011.30.800	013.30.800	1 122	878	100	1 078	922		22	M20	40	6	1 001	998	90	80	10	1 068	966.4	118	635.2	80
		012.30.800	014.30.800																968	94	634	64	
19	010.40.900	011.40.900	013.40.900	1 242	998		1 198	1042							36	1 121	1 118	12	1 188	1 188	116	824	83
		012.40.900	014.40.900																1 185.6	96	820.8	69	
20	010.30.900	011.30.900	013.30.900	1 122	878		1 078	922		22	M20	40	6	1 001	998	90	80	10	1 068	1 188	116	824	83
		012.30.900	014.30.900																1 185.6	96	820.8	69	
21	010.40.1000	011.40.1000	013.40.1000	1 122	878		1 078	922		22	M20	40	6	1 001	998	90	80	10	1 068	1 188	116	824	83
		012.40.1000	014.40.1000																1 185.6	96	820.8	69	
22	010.30.1000	011.30.1000	013.30.1000	1 122	878		1 078	922		22	M20	40	6	1 001	998	90	80	10	1 068	1 188	116	824	83
		012.30.1000	014.30.1000																1 185.6	96	820.8	69	
23	010.40.1120	011.40.1120	013.40.1120	1 242	998		1 198	1042		22	M20	40	6	1 001	998	90	80	10	1 068	1 188	116	824	83
		012.40.1120	014.40.1120																1 185.6	96	820.8	69	
24	010.30.1120	011.30.1120	013.30.1120	1 242	998		1 198	1042		22	M20	40	6	1 001	998	90	80	10	1 068	1 188	116	824	83
		012.30.1120	014.30.1120																1 185.6	96	820.8	69	



No.	Model			Dimension		Mounting dimension					Structural dimension					Gear	Ext Gear	Int Gear					
	Without Gear	Ext Gear	Int Gear	D	d	H	D <sub>1</sub>	D <sub>2</sub>	d <sub>m1</sub> d <sub>m2</sub>	d <sub>m1</sub> d <sub>m2</sub>	L	n	n <sub>1</sub>	D <sub>3</sub>	d <sub>1</sub>	H <sub>1</sub>	h	b	m	d <sub>a</sub>	z	d <sub>a</sub>	z
				mm									mm								mm		
25	010.45.1250	011.45.1250	013.45.1250	1 390	1 110		1 337	1 163				40	5	1 252	1 248			12	1 449.6	118	1 048.8	88	
		012.45.1250	014.45.1250																14	1 453.2	101	1 041.6	75
26	010.35.1250	011.35.1250	013.35.1250	1 540	1 260		1 487	1 313				48	26	M24	100	10	90	12	1 449.6	118	1 048.8	88	
		012.35.1250	014.35.1250																14	1 453.2	101	1 041.6	75
27	010.45.1400	011.45.1400	013.45.1400	1 540	1 260		1 487	1 313				40	5	1 402	1 398			12	1 605.6	131	1 192.8	100	
		012.45.1400	014.45.1400																14	1 607.2	112	1 195.6	86
28	010.35.1400	011.35.1400	013.35.1400	1 540	1 260		1 487	1 313				48	26	M24	100	10	90	12	1 605.6	131	1 192.8	100	
		012.35.1400	014.35.1400																14	1 607.2	112	1 195.6	86
29	010.45.1600	011.45.1600	013.45.1600	1 740	1 460		110	1 687	1 513			45	5	1 602	1 598			14	1 817.2	127	1 391.6	100	
		012.45.1600	014.45.1600																16	1 820.8	111	1 382.4	87
30	010.35.1600	011.35.1600	013.35.1600	1 740	1 460		1 687	1 513				45	5	1 601	1 598			14	1 817.2	127	1 391.6	100	
		012.35.1600	014.35.1600																16	1 820.8	111	1 382.4	87
31	010.45.1800	011.45.1800	013.45.1800	1 940	1 660		1 887	1 713				45	5	1 802	1 798			14	2 013.2	141	1 573.6	113	
		012.45.1800	014.45.1800																16	2 012.8	123	1 574.4	99
32	010.35.1800	011.35.1800	013.35.1800	1 940	1 660		1 887	1 713				45	5	1 801	1 798			14	2 013.2	141	1 573.6	113	
		012.35.1800	014.35.1800																16	2 012.8	123	1 574.4	99
33	010.60.2000	011.60.2000	013.60.2000	2 178	1 825		144	2 110	1 891			48	8	2 002	1 998			16	2 268.8	139	1 734.4	109	
		012.60.2000	014.60.2000																18	2 264.4	123	1 735.2	97
34	010.40.2000	011.40.2000	013.40.2000	2 178	1 825		144	2 110	1 891			48	8	2 001	1 998			16	2 268.8	139	1 734.4	109	
		012.40.2000	014.40.2000																18	2 264.4	123	1 735.2	97



No.	Model			Dimension			Mounting dimension					n	Structural dimension				Gear		Ext Gear		Int Gear		
	Without Gear	Ext Gear	Int Gear	D	d	H	D <sub>1</sub>	D <sub>2</sub>	d <sub>h1</sub> d <sub>h2</sub>	d <sub>m1</sub> d <sub>m2</sub>	L		n <sub>1</sub>	D <sub>3</sub>	d <sub>l</sub>	H <sub>1</sub>	h	b	m	d <sub>a</sub>	z	d <sub>a</sub>	z
				mm										mm							mm		
35	010.60.2240	011.60.2240	013.60.2240	2 418	2 065		2 350	2 131				4	2 242	2 238			16	2 492.8	153	1 990.4	125		
		012.60.2240	014.60.2240															18	2 498.4	136	1 987.2	111	
36	010.40.2240	011.40.2240	013.40.2240	2 678	2 325	144	2 610	2 391	33	M30	60	8	2 241	2 502	2 498	132	120	16	2 492.8	153	1 990.4	125	
		012.40.2240	014.40.2240																18	2 498.4	136	1 987.2	111
37	010.60.2500	011.60.2500	013.60.2500	2 978	2 625	144	2 610	2 391	33	M30	60	8	2 501	2 802	2 798	132	120	18	2 768.4	151	2 239.2	125	
		012.60.2500	014.60.2500																20	2 776	136	2 228	112
38	010.40.2500	011.40.2500	013.40.2500	2 978	2 625	144	2 610	2 391	33	M30	60	8	2 501	2 802	2 798	132	120	18	2 768.4	151	2 239.2	125	
		012.40.2500	014.40.2500																20	2 776	136	2 228	112
39	010.60.2800	011.60.2800	013.60.2800	2 978	2 625		2 910	2 691				5	2 801	2 802	2 798	132	120	18	3 074.4	168	2 527.2	141	
		012.60.2800	014.60.2800																20	3 076	151	2 528	127
40	010.40.2800	011.40.2800	013.40.2800	2 978	2 625		2 910	2 691				5	2 801	2 802	2 798	132	120	18	3 074.4	168	2 527.2	141	
		012.40.2800	014.40.2800																20	3 076	151	2 528	127
41	010.75.3150	011.75.3150	013.75.3150	3 376	2 922		3 286	3 014				6	3 147	3 152	3 148	162	150	20	3 476	171	2 828	142	
		012.75.3150	014.75.3150																22	3 471.6	155	2 824.8	129
42	010.50.3150	011.50.3150	013.50.3150	3 376	2 922		3 286	3 014				5	3 148	3 552	3 547	162	150	20	3 476	171	2 828	142	
		012.50.3150	014.50.3150																22	3 471.6	155	2 824.8	129
43	010.75.3550	011.75.3550	013.75.3550	3 776	3 322		3 686	3 414				6	3 547	3 552	3 548	162	150	20	3 876	191	3 228	162	
		012.75.3550	014.75.3550																22	3 889.6	174	3 220.8	147
44	010.50.3550	011.50.3550	013.50.3550	3 776	3 322		3 686	3 414				5	3 547	3 552	3 548	162	150	20	3 876	191	3 228	162	
		012.50.3550	014.50.3550																22	3 889.6	174	3 220.8	147

No.	Model			Dimension			Mounting Dimension					Structural dimension				Gear		Ext Gear		Int Gear			
	Without Gear	Ext Gear	Int Gear	D	d	H	D <sub>1</sub>	D <sub>2</sub>	d <sub>h1</sub> d <sub>h2</sub>	d <sub>m1</sub> d <sub>m2</sub>	L	n	n <sub>1</sub>	D <sub>3</sub>	d <sub>1</sub>	H <sub>1</sub>	h	b	m	d <sub>a</sub>	z	d <sub>a</sub>	z
				mm								mm								mm		mm	
45	010.75.4000	011.75.4000	013.75.4000	4 226	3 772	174	4 136	3 864	45	M42	84	60	10	3 997	4 002	162	12	150	22	4 329.6	194	3 660.8	167
		012.75.4000	014.75.4000																25	4 345	171	3 660	147
46	010.50.4000	011.50.4000	013.50.4000	4 726	4 272	4 636	4 364	45	M42	84	60	10	3 998	4 502	162	12	150	22	4 329.6	194	3 660.8	167	
		012.50.4000	014.50.4000															25	4 345	171	3 660	147	
47	010.75.4500	011.75.4500	013.75.4500	4 726	4 272	174	4 636	4 364	45	M42	84	60	10	4 497	4 502	162	12	150	22	4 835.6	217	4 166.8	190
		012.75.4500	014.75.4500																25	4 845	191	4 160	167
48	010.50.4500	011.50.4500	013.50.4500	4 726	4 272	174	4 636	4 364	45	M42	84	60	10	4 498	4 502	162	12	150	22	4 835.6	217	4 166.8	190
		012.50.4500	014.50.4500																25	4 845	191	4 160	167

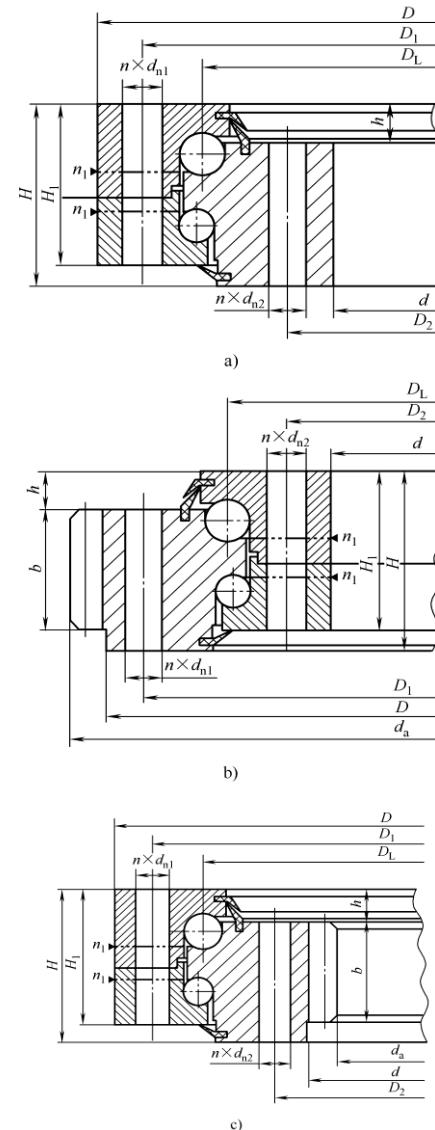
## 4. Double-Row Ball Slewing Bearing

Double-row ball slewing bearing can carry axial load, tilting moment and radial loads at the same time. The top ball mainly carries the axial load and positive tilting moment. The drop ball takes the opposite tilting moment. This is the reason for the loading capacity of the double row ball slewing bearing being larger than the four-point contact ball slewing bearing; however, the frictional ratio is much larger. The double row ball slewing bearing consists of an inner ring, outer ring, balls in double rows, spacers, sealing device, and other components. Due to the top ball mainly taking the axial load and tilting moment loads, the size of top balls is larger than the drop ball. In order to accommodate the various working condition at different axial load, tilting moments and axial load, the angle of contact would be adjusted accordingly. The double row slewing bearing is mainly for the working conditions when carrying an axial load, larger tilting moment, and where the mounting place is limited in radial direction. This structure provides good performance when fit into an installation when an amount of deformation may be allowed.

As the axle and the dimension of the double-row ball slewing bearing are relatively larger, the bearing construction is sturdy, hence it is especially suitable for tower cranes which require working radius over medium range, mobile cranes and loading and unloading machines.



Without Gear  
Internal Gear  
External Gear





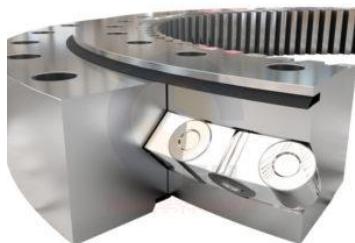
No.	Model			Dimension			Mounting Dimension					Structural dimension			Gear		Ext Gear		Int Gear				
	Without Gear	Ext Gear	Int GEAR	D	d	H	D <sub>1</sub>	D <sub>2</sub>	d <sub>n1</sub> d <sub>n2</sub>	d <sub>n1</sub> d <sub>n2</sub>	L	n	n <sub>l</sub>	H <sub>1</sub>	h	b	m	d <sub>a</sub>	z	d <sub>a</sub>	z		
				mm					mm					mm					mm				
1	020.25.500	021.25.500	023.25.500	616	384		580	420				20					5	644	126	357	72		
		022.25.500	024.25.500														6	646.8	105	350.4	59		
2	020.25.560	021.25.560	023.25.560	676	444	106	640	480				18	M16	32	4	96	26	60	5	704	138	417	84
		022.25.560	024.25.560														6	706.8	115	410.4	69		
3	020.25.630	021.25.630	023.25.630	746	514		710	550				24							790.8	129	482.4	81	
		022.25.630	024.25.630																8	790.4	96	475.2	60
4	020.25.710	021.25.710	023.25.710	826	594		790	630				18	M16	32	4	96	26	60	6	862.8	141	560.4	94
		022.25.710	024.25.710																8	862.4	105	555.2	70
5	020.30.800	021.30.800	023.30.800	942	658		898	702				30							982.4	120	619.2	78	
		022.30.800	024.30.800																10	988	96	614	62
6	020.30.900	021.30.900	023.30.900	1 042	758	124	998	802				22	M20	40	6	114	29	80	8	1 086.4	133	715.2	90
		022.30.900	024.30.900																10	1 088	106	714	72
7	020.30.1000	021.30.1000	023.30.1000	1 142	858		1 098	902				36							10	1 198	117	814	82
		022.30.1000	024.30.1000																12	1 197.6	97	796.8	67
8	020.30.1120	021.30.1120	023.30.1120	1 262	978		1 218	1 022				36							10	1 318	129	924	93
		022.30.1120	024.30.1120																12	1 317.6	107	916.8	77
9	020.40.1250	021.40.1250	023.40.1250	1 426	1 074	160	1 374	1 126				26	M24	48	5	150	39	90	12	1 497.6	122	1 012.8	85
		022.40.1250	024.40.1250																14	1 495.2	104	1 013.6	73
10	020.40.1400	021.40.1400	023.40.1400	1 576	1 224		1 524	1 272				26		40	5	150	39	90	12	1 641.6	134	1 156.8	97
		022.40.1400	024.40.1400																14	1 649.2	115	1 153.6	83

No.	Model			Dimension			Mounting Dimension					Structural Dimension		Gear		Ext Gear	Int Gear				
	Without Gear	Ext Gear	Int Gear	D	d	H	D <sub>1</sub>	D <sub>2</sub>	d <sub>h1</sub> d <sub>h2</sub>	d <sub>m1</sub> d <sub>m2</sub>	L	n	n <sub>1</sub>	H	h	b	m	d <sub>a</sub>	z	d <sub>a</sub>	z
				mm								mm								mm	
11	020.40.1600	021.40.1600	023.40.1600	1 776	1 424	160	1 724	1 476	26	M24	48	45	5	150	39	90	14	1 845.2	129	1 349.6	97
		022.40.1600	024.40.1600				1 924	1 676						16	1 852.8	113	1 350.4	85			
12	020.40.1800	021.40.1800	023.40.1800	1 976	1 624	1 976	2 149	1 851	33	M30	60	48	8	178	47	120	14	2 055.2	144	1 545.6	111
		022.40.1800	024.40.1800				2 389	2 091						16	2 060.8	126	1 542.4	97			
13	020.50.2000	021.50.2000	023.50.2000	2 215	1 785	190	2 649	2 351	45	M42	84	56	214	56	150	16	2 300.8	141	1 702.4	107	
		022.50.2000	024.50.2000				2 949	2 651						18	2 300.4	125	1 699.2	95			
14	020.50.2240	021.50.2240	023.50.2240	2 455	2 025	2 715	3 338	2 962	45	M42	84	60	10	214	56	150	16	2 540.8	156	1 942.4	122
		022.50.2240	024.50.2240				3 738	3 362						18	2 552.4	139	1 933.2	108			
15	020.50.2500	021.50.2500	023.50.2500	2 715	2 285	3 015	2 389	2 091	45	M42	84	56	214	56	150	18	2 804.4	153	2 203.2	123	
		022.50.2500	024.50.2500				2 649	2 351						20	2 816	138	2 188	110			
16	020.50.2800	021.50.2800	023.50.2800	3 015	2 585	3 015	3 338	2 962	45	M42	84	56	214	56	150	18	3 110.4	170	2 491.2	139	
		022.50.2800	024.50.2800				3 738	3 362						20	3 116	153	2 488	125			
17	020.60.3150	021.60.3150	023.60.3150	3 428	2 872	3 428	4 188	3 812	45	M42	84	60	10	214	56	150	20	3 536	174	2 768	139
		022.60.3150	024.60.3150				4 688	4 312						22	3 537.6	158	2 758.8	126			
18	020.060.3550	021.60.3550	023.60.3550	3 828	3 272	3 828	4 188	3 812	45	M42	84	60	10	214	56	150	20	3 936	194	3 168	159
		022.60.3550	024.60.3550				4 688	4 312						22	3 933.6	176	3 176.8	145			
19	020.60.4000	021.60.4000	023.60.4000	4 278	3 722	4 278	4 188	3 812	45	M42	84	60	10	214	56	150	25	4 395.6	197	3 618.8	165
		022.60.4000	024.60.4000				4 688	4 312						25	4 395	173	3 610	145			
20	020.60.4500	021.60.4500	023.60.4500	4 778	4 222	4 778	4 188	3 812	45	M42	84	60	10	214	56	150	22	4 879.6	219	4 122.8	188
		022.60.4500	024.60.4500				4 688	4 312						25	4 895	193	4 110	165			

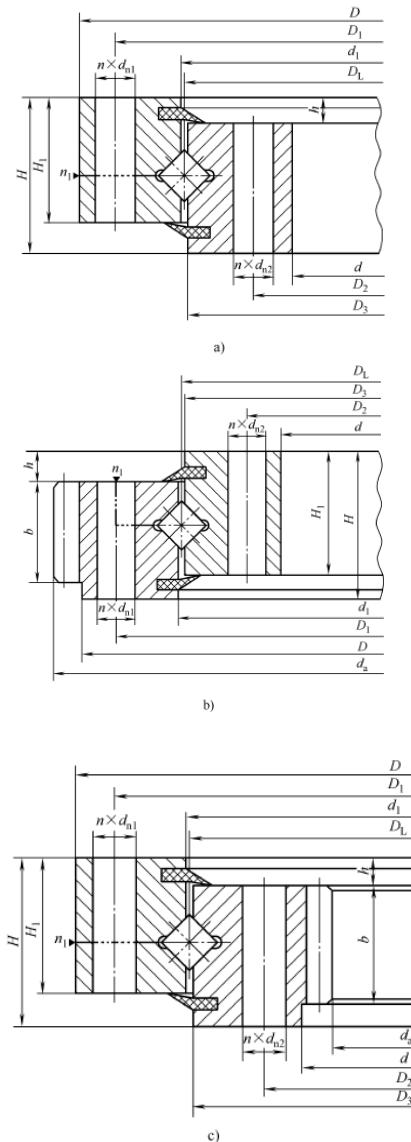
## 5. Cross Roller Slewing Bearing

The cross roller slewing bearing can carry axial load, tilting moment and radial load all at the same time. The design and application of the cross cylindrical roller slewing bearings are basically the same as those of the four-point contact ball slewing bearing, except that the rolling elements are substituted from balls into rollers and the contact way between the rolling elements and rings is changed from point contact into line contact. Those changes allow for the carrying capacity to be increased, but the wear and the friction moment load are also increased. As the rollers are 1:1cross arranged, it is suitable for high precision mounting and capable to bear axial force. The complement of a full set of rollers is usually taken when the load is heavier. However, the greater frictional resistance could cause groove marks around the circle where rollers and raceway contact. This slewing bearing with a design of a full complement of rollers is mainly applied in the condition where a heavier axial load is the primary load, and the requirement for tilting moment and friction moment is not so high.

The single-row crossed roller Slewing Bearings are widely used for hoisting, transporting, engineering machines as well as for military products.



Without Gear  
Internal Gear  
External Gear





No.	Model			Dimension			Mounting Dimension					Structural Dimension				Gear		Ext Gear		Inn Gear							
	Without Gear	Ext Gear	Int Gear	D	d	H	D <sub>1</sub>	D <sub>2</sub>	d <sub>h1</sub> d <sub>h2</sub>	d <sub>m1</sub> d <sub>m2</sub>	L	n	n <sub>1</sub>	D <sub>s</sub>	d <sub>t</sub>	H <sub>t</sub>	h	b	m	d <sub>a</sub>	z	d <sub>a</sub>	z				
				mm										mm						mm		mm					
1	110.25.500	111.25.500	113.25.500	602	398	75	566	434	20	4	498	502	65	60	5	629	123	367	74	5	629.8	102	368.4	62			
		112.25.500	114.25.500				626	494			558	562			6	628.8	135	427	86		689	112	428.4	72			
2	110.25.560	111.25.560	113.25.560	662	458	18	M16	32	24	4	628	632	65	60	6	688.8	126	494.4	83	772.8	774.4	94	491.2	62			
		112.25.560	114.25.560				696	564			708	712			8	850.8	139	572.4	96		854.4	104	571.2	72			
3	110.25.630	111.25.630	113.25.630	732	528	776	644	22	M20	40	30	6	798	802	72	10	8	966.4	118	635.2	80	968	1062.4	130	739.2	93	
		112.25.630	114.25.630				978	822			898	902			10	1 068	104	734	74	1 188	1 185.6	96	820.8	69			
4	110.25.710	111.25.710	113.25.710	812	608	82	1 078	922	36	5	998	1 002	75	65	10	1 298	127	944	95	1 305.6	1 449.6	118	1 048.8	88			
		112.25.710	114.25.710				1 122	878			1 118	1 122			12	1 453.2	101	1 041.6	75	1 453.2	1 605.6	131	1 192.8	100			
5	110.28.800	111.28.800	113.28.800	922	678	91	1 337	1 163	26	M24	48	40	5	1 248	1 252	81	75	14	1 607.2	112	1 195.6	86	1 453.2	1 607.2	112	1 195.6	86
		112.28.800	114.28.800				1 022	778			1 487	1 313			12	1 605.6	131	1 192.8	100	1 449.6	1 605.6	118	1 048.8	88			
6	110.28.900	111.28.900	113.28.900	1 022	778	1 122	1 078	922	36	5	1 248	1 252	81	75	14	1 453.2	101	1 041.6	75	1 449.6	1 607.2	112	1 195.6	86			
		112.28.900	114.28.900				1 122	878			1 118	1 122			12	1 605.6	131	1 192.8	100	1 449.6	1 607.2	112	1 195.6	86			
7	110.28.1000	111.28.1000	113.28.1000	1 242	998	1 122	1 078	922	36	5	1 248	1 252	81	75	14	1 453.2	101	1 041.6	75	1 449.6	1 607.2	112	1 195.6	86			
		112.28.1000	114.28.1000				1 122	878			1 118	1 122			12	1 605.6	131	1 192.8	100	1 449.6	1 607.2	112	1 195.6	86			
8	110.25.1120	111.25.1120	113.25.1120	1 242	998	1 122	1 078	922	36	5	1 248	1 252	81	75	14	1 453.2	101	1 041.6	75	1 449.6	1 607.2	112	1 195.6	86			
		112.25.1120	114.25.1120				1 122	878			1 118	1 122			12	1 605.6	131	1 192.8	100	1 449.6	1 607.2	112	1 195.6	86			
9	110.32.1250	111.32.1250	113.32.1250	1 390	1 110	91	1 337	1 163	26	M24	48	40	5	1 248	1 252	81	75	14	1 453.2	101	1 041.6	75	1 449.6	1 607.2	112	1 195.6	86
		112.32.1250	114.32.1250				1 390	1 110			1 487	1 313			12	1 605.6	131	1 192.8	100	1 449.6	1 607.2	112	1 195.6	86			
10	110.32.1400	111.32.1400	113.32.1400	1 540	1 260	91	1 487	1 313	26	M24	48	40	5	1 248	1 252	81	75	14	1 453.2	101	1 041.6	75	1 449.6	1 607.2	112	1 195.6	86
		112.32.1400	114.32.1400				1 487	1 313			1 398	1 402			12	1 605.6	131	1 192.8	100	1 449.6	1 607.2	112	1 195.6	86			



No .	Model			Dimension			Mounting Gear					Structural Dimension			Gear	Ext Gear	Int Gear						
	Without Gear	Ext Gear	Int Gear	D	d	H	D <sub>1</sub>	D <sub>2</sub>	d <sub>h1</sub> dh2	d <sub>h1</sub> dh2	L	n	n <sub>1</sub>	D <sub>s</sub>	d <sub>1</sub>	H	h	b	m	d <sub>a</sub>	z	d <sub>a</sub>	z
				mm										mm									mm
11	110.32.1600	111.32.1600	113.32.1600	1 740	1 460	91	1 687	1 513	26	M24	48	45	5	1 598	1 602	81	10	75	14	1 817.2	127	1 391.6	100
		112.32.1600	114.32.1600																	16	1 820.8	111	1 382.4
12	110.32.1800	111.32.1800	113.32.1800	1 940	1 660		1 887	1 713						1 798	1 802				14	2 013.2	141	1 573.6	113
		112.32.1800	114.32.1800																	16	2 012.8	123	1 574.4
13	110.40.2000	111.40.2000	113.40.2000	2 178	1 825		2 110	1 891						1 997	2 003				14	2 268.8	139	1 734.4	109
		112.40.2000	114.40.2000																	18	2 264.4	123	1 735.2
14	110.40.2240	111.40.2240	113.40.2240	2 418	2 065	112	2 350	2 131						2 237	2 243				16	2 492.8	153	1 990.4	125
		112.40.2240	114.40.2240																	18	2 498.4	136	1 987.2
15	110.40.2500	111.40.2500	113.40.2500	2 678	2 325		2 610	2 391						2 497	2 503				18	2 768.4	151	2 239.2	125
		112.40.2500	114.40.2500																	20	2 776	136	2 228
16	110.40.2800	111.40.2800	113.40.2800	2 978	2 625	112	2 910	2 691						2 797	2 803				18	3 074.4	168	2 527.2	141
		112.40.2800	114.40.2800																	20	3 076	151	2 528
17	110.50.3150	111.50.3150	113.50.3150	3 376	2 922		3 286	3 014						3 147	3 153				20	3 476	171	2 828	142
		112.50.3150	114.50.3150																	22	3 471.6	155	2 824.8
18	110.50.3550	111.50.3550	113.50.3550	3 776	3 322	134	3 686	3 414						3 547	3 553				20	3 876	191	3 228	162
		112.50.3550	114.50.3550																	22	3 889.6	174	3 220.8
19	110.50.4000	111.50.4000	113.50.4000	4 226	3 772		4 136	3 864						3 997	4 003				22	4 329.6	194	3 660.8	167
		112.50.4000	114.50.4000																	25	4 345	171	3 660
20	110.50.4500	111.50.4500	113.50.4500	4 726	4 272		4 636	4 364						4 497	4 503				22	4 835.6	217	4 166.8	190
		112.50.4500	114.50.4500																	25	4 845	191	4 160

## 6. Three-Row Roller Slewing Bearing

The three row cylindrical roller combined slewing bearing can carry axial load, tilting moment, and radial load all at the same time. Compared to cross-cylindrical roller slewing bearing the load of each roller is reduced.

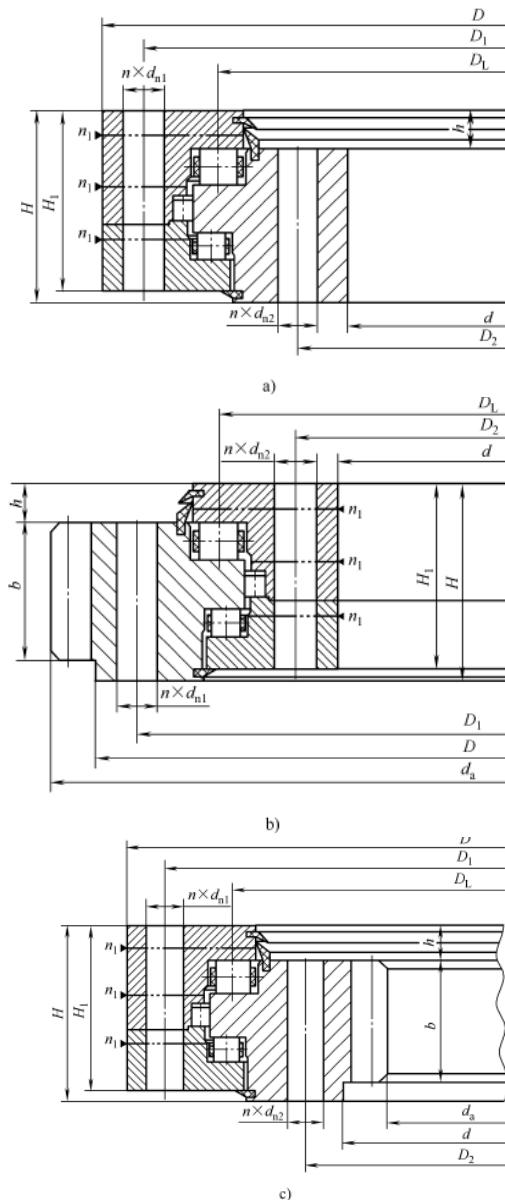
Point contact is changed into line contact compared with that of a double row ball slewing bearing, so the contact stresses are also decreased. Therefore, the load capacity of this design of slewing bearing is the highest under the conditions of a bearing with the same boundary dimensions.

The three row cylindrical roller combined slewing bearing mainly consists of the components such as inner ring, outer ring, three rows of rollers, cage (spacing blocks), a seal device etc. This slewing bearing design is suitable for most applications where a large axial load and tilting moment, or with a larger radial load, or with a low requirement for friction moment.

Three row rollers slewing bearing, which is matching with port crane. Due to has high carrying capacity. It is also widely used in the bucket, overweight transportation machinery, port machinery, mining machinery, and construction machinery, park recreation machine, filling machine, missile launchers and other large rotary device.



Without Gear  
Internal Gear  
External Gear





No.	Model			Dimension			Mounting Dimension					Structural Dimension				Gear		Ext Gear		Int Gear				
	Without Gear	Ext Gear	Int Gear	D	d	H	D <sub>1</sub>	D <sub>2</sub>	d <sub>h1</sub> d <sub>h2</sub>	d <sub>m1</sub> d <sub>m2</sub>	L	n	n <sub>1</sub>	H <sub>1</sub>	h			b	m	d <sub>a</sub>	z	d <sub>a</sub>	z	
				mm										mm						mm				
1	130.25.500	131.25.500	133.25.500	634	366		598	402			24							5	664	130	337	68		
		132.25.500	134.25.500																6	664.8	108	338.4	57	
2	130.25.560	131.25.560	133.25.560	694	426	148	658	462		18	M16	32	28	4	138	32		80	5	724	142	397	80	
		132.25.560	134.25.560																	6	724.8	118	398.4	67
3	130.25.630	131.25.630	133.25.630	764	496		728	532										8	808.8	132	458.4	77		
		132.25.630	134.25.630																8	806.4	98	459.2	58	
4	130.25.710	131.25.710	133.25.710	844	576		808	612										6	886.8	145	536.4	90		
		132.25.710	134.25.710																8	886.4	108	539.2	68	
5	130.32.800	131.32.800	133.32.800	964	636		920	680										8	1 006.4	123	595.2	75		
		132.32.800	134.32.800																10	1 008	98	594	60	
6	130.32.900	131.32.900	133.32.900	1 064	736	182	1 020	780		22	M20	40	36		172	40		120	8	1 102.4	135	691.2	87	
		132.32.900	134.32.900																	10	1 108	108	694	70
7	130.32.1000	131.32.1000	133.32.1000	1 164	836		1 120	880		22	M20	40	40		172	40		120	10	1 218	119	784	79	
		132.32.1000	134.32.1000																	12	1 221.6	99	784.8	66
8	130.32.1120	131.32.1120	133.32.1120	1 284	956		1 240	1 000		26	M24	48	45		5	210	50		150	10	1 338	131	904	91
		132.32.1120	134.32.1120																	12	1 341.6	109	904.8	76
9	130.40.1250	131.40.1250	133.40.1250	1 445	1 055		1 393	1 107		26	M24	48	45		210	50		150	12	1 509.6	123	988.8	83	
		132.40.1250	134.40.1250																	14	1 509.2	105	985.6	71
10	130.40.1400	131.40.1400	133.40.1400	1 595	1 205		1 543	1 257		220	M24	48	45		210	50		150	12	1 665.6	136	1 144.8	96	
		132.40.1400	134.40.1400																	14	1 663.2	116	1 139.6	82



No.	Model			Dimension			Mounting Dimension					Structural dimension	Gear		Ext Gear		Int Gear					
	Without Gear	Ext Gear	Int Gear	D	d	H	D <sub>1</sub>	D <sub>2</sub>	dh1 dh2	dm1 dm2	L		n <sub>1</sub>	H <sub>1</sub>	h	b	m	d <sub>a</sub>	z	d <sub>a</sub>	z	
				mm										mm							mm	
11	130.40.1600	131.40.1600	133.40.1600	1 795	1 405		1 743	1 457			48	6	210	50	150	14	1 873.2	131	1 335.6	96		
		132.40.1600	134.40.1600													16	1 868.8	114	1 334.4	84		
12	130.40.1800	131.40.1800	133.40.1800	1 995	1 605	220	1 943	1 657	26	M24	48	6	219	54	160	14	2 069.2	145	1 531.6	110		
		132.40.1800	134.40.1800													16	2 076.8	127	1 526.4	96		
13	130.45.2000	131.45.2000	133.45.2000	2 221	1 779		2 155	1 845			60	6	219	54	160	16	2 300.8	141	1 702.4	107		
		132.45.2000	134.45.2000													18	2 300.4	125	1 699.2	95		
14	130.45.2240	131.45.2240	133.45.2240	2 461	2 019		2 395	2 085			60	6	219	54	160	16	2 556.8	157	1 926.4	121		
		132.45.2240	134.45.2240													18	2 552.4	139	1 933.2	108		
15	130.45.2500	131.45.2500	133.45.2500	2 721	2 279		2 655	2 345			72	8	258	65	180	18	2 822.4	154	2 185.2	122		
		132.45.2500	134.45.2500													20	2 816	138	2 188	110		
16	130.45.2800	131.45.2800	133.45.2800	3 021	2 579		2 955	2 645			80	8	258	65	180	18	3 110.4	170	2 491.2	139		
		132.45.2800	134.45.2800													20	3 116	153	2 488	125		
17	130.50.3150	131.50.3150	133.50.3150	3 432	2 868		3 342	2 958			72	8	258	65	180	20	3 536	174	2 768	139		
		132.50.3150	134.50.3150													22	3 537.6	158	2 758.8	126		
18	130.50.3550	131.50.3550	133.50.3550	3 832	3 268		3 742	3 358			84	8	258	65	180	20	3 936	194	3 168	159		
		132.50.3550	134.50.3550													22	3 933.6	176	3 154.8	144		
19	130.50.4000	131.50.4000	133.50.4000	4 282	3 718		4 192	3 808			84	8	258	65	180	22	4 395.6	197	3 616.8	165		
		132.50.4000	134.50.4000													25	4 395	173	3 610	145		
20	130.50.4500	131.50.4500	133.50.4500	4 782	4 218		4 692	4 308			80	8	258	65	180	22	4 901.6	220	4 122.8	188		
		132.50.4500	134.50.4500													25	4 895	193	4 110	165		

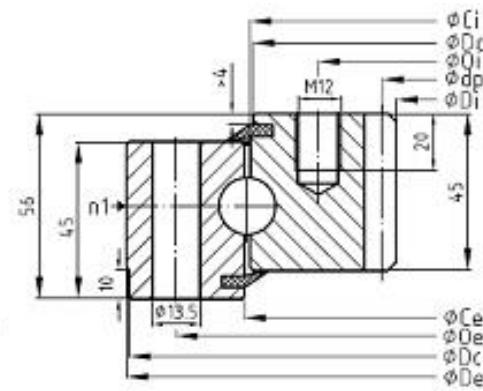
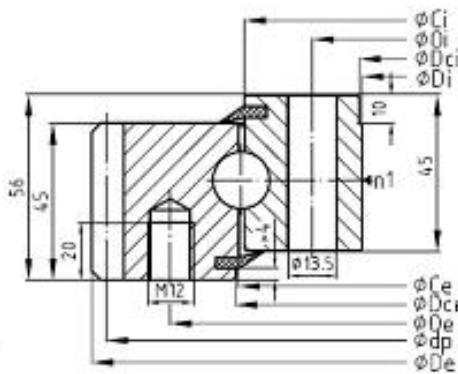
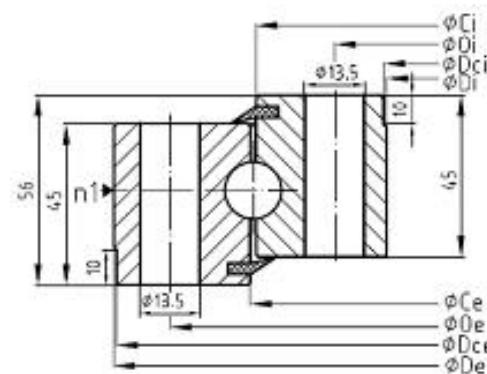


## 7. Light Type EU Standard Slewing Bearing

### Thin Section

Light type profile EU standard slewing bearing has the same structure with general slewing bearing, It features in weight, swivel flexible. It is widely used in Food machinery, Filling machinery, Environment protection machine etc.

It is one series of single row ball slewing ring with compact structure and lighter weight, when met the same diameter requirement. The cost is lower, It is served as European standard product.





## Light EU standard Slewing Bearing

Mode	Raceway Diameter (mm)	De (IT9) (mm)	Dce (IT9) (mm)	Di (mm)	Dci (mm)	Oe (mm)	Oi (mm)	ne (mm)	ni (mm)	n1 (mm)	Ci (mm)	Ce (mm)	dp (mm)	m (mm)	z (mm)	x (mm)	Weigh kg
QU20.414	414	486	484	342	344	460	368	24	24	4	412.5	415.5	·	·	·	·	29
QU20.544	544	616	614	472	474	590	498	32	32	4	542.5	545.5	·	·	·	·	37
QU20.644	644	716	714	572	574	690	598	36	36	4	642.5	645.5	·	·	·	·	44
QU20.744	744	816	814	672	674	790	698	40	40	4	742.5	745.5	·	·	·	·	52
QU20.844	844	916	914	772	774	890	798	40	40	4	842.5	845.5	·	·	·	·	60
QU20.944	944	1016	1014	872	874	990	898	44	44	4	942.5	945.5	·	·	·	·	67
QU20.1094	1094	1166	1164	1022	1024	1140	1048	48	48	4	1092.5	1095.5	·	·	·	·	77

### Outer Gear

QW20.414	414	505	417	342	344	455	368	20	24	4	412.5	415.5	495	5	99	0	31
QW20.544	544	640	547	472	474	585	498	28	32	4	542.5	545.5	630	6	105	0	43
QW20.644	644	742	647	572	574	685	598	32	36	4	642.5	645.5	732	6	122	0	52
QW20.744	744	838	747	672	674	785	698	36	40	4	742.5	745.5	828	6	138	0	59
QW20.844	844	950	847	772	774	885	798	36	40	4	842.5	845.5	936	8	117	0	71
QW20.944	944	1046	947	872	874	985	898	40	44	4	942.5	945.5	1032	8	129	0	77
QW20.1094	1094	1198	1097	1022	1024	1135	1048	44	48	4	1092.5	1095.5	1184	8	148	0	91

### Inner Gear

QN20.414	414	486	484	325	411	460	375	24	24	4	412.5	415.5	335	5	67	0	31
QN20.544	544	616	614	446	541	590	505	32	32	4	542.5	545.5	456	6	76	0	42
QN20.644	644	716	714	548	641	690	605	36	36	4	642.5	645.5	558	6	93	0	50
QN20.744	744	816	814	650	741	790	705	40	40	4	742.5	745.5	660	6	110	0	58
QN20.844	844	916	914	738	841	890	805	40	40	4	842.5	845.5	752	8	94	0	69
QN20.944	944	1016	1014	842	941	990	905	44	44	4	942.5	945.5	856	8	107	0	76
QN20.1094	1094	1166	1164	986	1091	1140	1055	48	48	4	1092.5	1095.5	1000	8	125	0	91

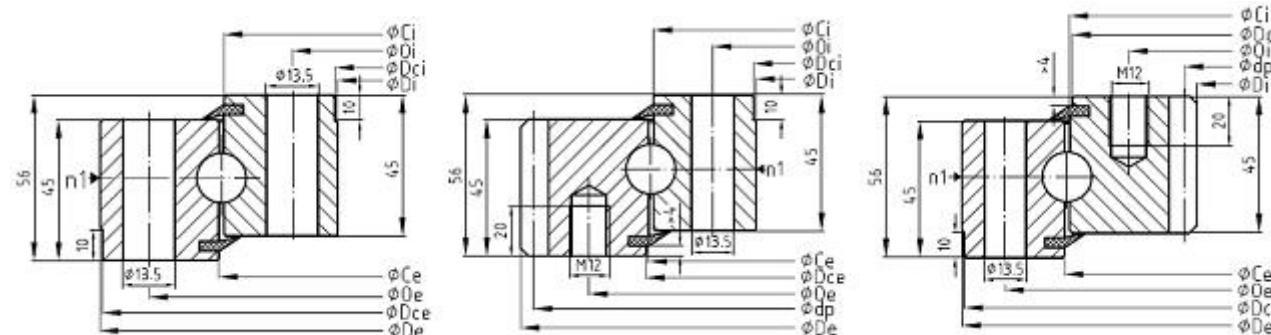
n1: M8×1



## Light Slewing Bearing With Flange

Light type profile slewing bearing has the same structure with general slewing bearing, it features in weight, swivel flexible . It is widely used in food machinery , filling machinery , environment protection machine and so on .

Widely applied on larger diameter and limited heavy machinery, light bearing capacity, More for light machinery like small crane, Manual lift, Turntable ladder and so on.





Model	Raceway	De Di		Oe Oi ne ni n1					Ci	Ce	Be Bi	dp m Z x				Weigh	
	Diameter	(mm)	(mm)	(mm) (mm)					(mm)	(mm)	(mm) (mm)	(mm)	(mm)	(mm)	(mm)	kg	
	(mm)																
FU20.414	414	518	304	490	332	8	12	4	412,5	415,5	454	368	•	•	•	23	
FU20.544	544	648	434	620	462	10	14	4	542,5	545,5	584	498	•	•	•	31	
FU20.644	644	748	534	720	562	12	16	4	642,5	645,5	684	598	•	•	•	37	
	744	848	634	820	662	12	16	4	742,5	745,5	784	698	•	•	•		
	844	948	734	920	762	14	18	4	842,5	845,5	884	798	•	•	•		
FU20.944	944	1048	834	1020	862	16	20	4	942,5	945,5	984	898	•	•	•	54	
FU20.1094	1094	1198	984	1170	1012	16	20	4	1092,5	1095,5	1134	1048	•	•	•	63	
<hr/>																	
<b>Outer Gear</b>																	
FW20.414	414	505	304	455	332	10	12	4	412,5	415,5	•	368	495	5	99	0	30
FW20.544	544	640	434	585	462	14	14	4	542,5	545,5	•	498	630	6	105	0	42
FW20.644	644	742	534	685	562	16	16	4	642,5	645,5	•	598	732	6	122	0	49
FW20.744	744	838	634	785	662	18	16	4	742,5	745,5	•	698	828	6	138	0	55
FW20.844	844	950	734	885	762	18	18	4	842,5	845,5	•	798	936	8	117	0	66
FW20.944	944	1046	834	985	862	20	20	4	942,5	945,5	•	898	1032	8	129	0	72
FW20.1094	1094	1198	984	1135	1012	22	20	4	1092,5	1095,5	•	1048	1184	8	148	0	84
<hr/>																	
<b>Inner Gear</b>																	
FN20.414	414	518	325	490	375	8	12	4	412,5	415,5	454	•	335	5	67	0	28
FN20.544	544	648	446	620	505	10	16	4	542,5	545,5	584	•	456	6	76	0	38
FN20.644	644	748	548	720	605	12	18	4	642,5	645,5	684	•	558	6	96	0	45
FN20.744	744	848	650	820	705	12	20	4	742,5	745,5	784	•	660	6	110	0	52
FN20.844	844	948	738	920	805	14	20	4	842,5	845,5	884	•	752	8	94	0	62
FN20.944	944	1048	842	1020	905	16	22	4	942,5	945,5	984	•	856	8	107	0	68
FN20.1094	1094	1198	986	1170	1055	16	24	4	1092,5	1095,5	1134	•	1000	8	125	0	82
n1: M8×1																	

