



**UNIVERSAL INDUSTRIAL
PRODUCTS INC.**

www.ui-pi.com

Slewing Bearing Solution

Single Row Ball Slewing Bearing

Double Row Ball Slewing Bearing

Crossover Roller Slewing Bearing

Three Row Roller Slewing Bearing



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SLEWING BEARING MANUFACTURE

Universal Industrial Products, Inc. (UIPI) is a slewing bearing manufacturer specializing in large diameter solutions. For over a decade, we have helped our local customers with bearing design and supply solutions that have allowed them to reduce costs and improve profitability. In order to maintain our competitive edge, UIPI started a joint venture in China, which is one of the leading large-diameter slewing bearing manufacturers in China.

We have outstanding capability of large diameter slewing ring bearings for tunneling equipment, harbor and shipyard cranes, construction equipment, mobile cranes, offshore technology, tower cranes, turning machines, solar energy plants, ship deck cranes, railway cranes, man lifts, wind turbines, and more. Our ability to optimize the bearing design for your specific needs is unparalleled and we will deliver a solution at a fraction of traditional lead times.

Our design engineers are available to visit with you onsite and review your application requirements in detail. We will assist you throughout the design, manufacturing and implementation process. We will not only manufacture your solution, but we will also stock your inventory in our warehouse and deliver it to you on a JIT basis. Our goal is to use our resources to extend your company's capabilities and provide a comprehensive solutions package for all your application needs.



SLEWING BEARING INTRODCUTION

Slewing ring bearings are large- size bearings, which can carry combined loads: axial, radial load and tilting moment. They are usually equipped with fixing bolt holes, Internal or external gear, lubrication holes and sealing elements, consequently machinery structure can be made compact, guided rotary convenient, mounting and maintenance easy.



Available slewing bearings are: bearings with internal gear, external gear, or non-gear, four-point contact ball bearings, double row angular contact ball bearings, cross cylindrical roller bearings and three row combined cylindrical roller bearings, among which four-point contact ball bearings have the higher dynamic load carrying capacity while cross cylindrical roller bearings have the higher static load carrying capacity. The pre-interference of cross-tapered roller bearings provides higher supporting rigidly and better rotary accuracy. with wider width and different raceways being capable of carrying any direction loads, three row combined cylindrical roller bearings have the same loads therefore compact machinery structure can be obtained. This is a kind of heavy-duty slewing bearings.

The typical applications of the slewing bearings: lift and transport machinery, excavation machinery, building machinery, harbor machinery, cargo lifting machinery on ships, and even high-precision radar antenna mounts and missile launching pads.

Single row ball slewing bearing

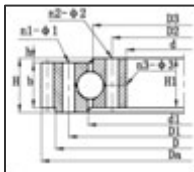
Double row ball slewing bearing

Crossover roller slewing bearing

Three row rollers slewing bearing

Other configuration slewing bearing





SINGLE ROW BALL SLEWING BEARING

Single row ball slewing bearings are suited to axial, radial, and moment loads. The four point contact is distributed between the balls and the two split raceways. The precision grinding and geometry of the ball and deep groove raceway allow for the application of increased thrust and moment capacity.

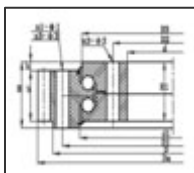
Specification:

Raceway Diameters: Standard models from 18" to 240" (480 mm to 6,000mm)

Capacity:

Thrust Loading : From 700 KN to 34,100 KN (7,670,000 Pounds)

Gearing: Non-gear, External Gear, Internal Gear



DOUBLE ROW BALL SLEWING BEARING

The eight point contact bearing design in principal is the same as the four point contact bearing with an additional ball and raceway configuration placed adjacent in the vertical axis's, this allows for loading to be evenly distributed between the two raceway arrangements, this configuration will allow for an increase in loading capacity of between 75 - 80% as opposed to the four point contact bearing, with additional dynamic forces being made available of up to 50% (approximately).

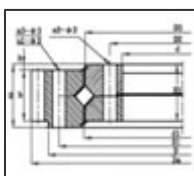
Specification:

Raceway Diameters: Standard models from 18" to 196" (480 mm to 5000mm)

Capacity:

Thrust Loading : From 1,210 KN to 26,700 KN (6,000,000 Pounds)

Gearing: Non-gear, External Gear, Internal Gear



CROSSOVER ROLLER SLEWING BEARING

The roller and raceway orientation are positioned at 45 degrees to the axis. The static loading capacities for these designs relative to the roller surface contact area are superior as opposed to the four and eight point contact bearings, additionally; the rigidity in this design allows for higher rotational speeds and will allow for a greater degree of misalignment in mounting. However, radial thrust limitations are less than that of the four and eight point contact bearing design.

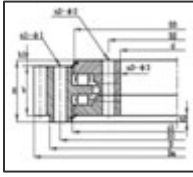
Specification:

Raceway Diameters: Standard models from 18" to 196" (480 mm to 5,000mm)

Capacity:

Thrust Loading : From 880 KN to 45,200 KN (10,200,000 Pounds)

Gearing: Non-gear, External Gear, Internal Gear



THREE ROW ROLLER SLEWING BEARING

These designs provide for the highest load rating of all designs. The three row roller configurations allow for the two rollers in the vertical axis to take both axial and moment loads from the two adjacent raceways, whilst the third roller facilitates the radial load. Typical applications for these designs are in Construction, Opencast Mining and Marine applications.

Specification:

Raceway Diameters: Standard models from 18" to 196" (480 mm to 5000mm)

Capacity:

Thrust Loading : From 15,000 KN to 105,060 KN (23,630,000 Pounds)

Moment Loading: From 2,000 KN to 11,160 KN (2,510,000 Pounds)

Gearing: Non-gear, External Gear, Internal Gear.

APPLICATION EXAMPLES:

- Excavators
- Harbor and Shipyard Cranes
- Mechanical Engineering
- Offshore Technology
- Tower Cranes
- Solar Energy Plants
- Man lift
- Railway Cranes
- Ship Deck Cranes.
- Mobile Cranes



RINGS AND ROLLING ELEMENT

Generally slewing bearing rings and their rolling elements are manufactured from through-hardening alloys (GCr15 or GCr15SiMn) these are equivalent to the AISI-SAE 52100 or E52100 family of alloys. UIPI can provide additional material specifications, dependent on their customer's requests.

Additional materials that can be used are 50Mn (equivalent to AISI C1050 OR SAE 1052), alloy steel (AISI4140 /GB42CrMo /DIN42CrMo4 /BS708A42) , carbon steel (AISI1045 /GB45 /DINCK45 /BS060A42) or 5CrMnMo (equivalent to AISI-SAE V1G).



SLEWING RING INTERNAL CLEARANCE

In order to ensure that Slewing Bearings operate smoothly they are set with an internal clearance, this clearance also accommodates for some degree of distortion within the mounting frame structures, these clearances vary depending on size, type, and grade classification of the bearing. These clearances are shown in the Tables below 3-6.



Table 3: Axial Clearance In Four-Point Contact Ball Slewing Bearings μm

Dpw mm		Tolerance Classes					
		G		E		D	
		Axial Clearance					
Over	Incl	Min	Max	Min	Max	Min	Max
280	450	70	170	50	130	30	90
450	710	100	220	70	170	40	120
710	1120	120	280	100	220	50	150
1120	1800	150	350	100	260	60	180
1800	2800	200	440	150	350	80	240
2800	4500	260	540	200	440	100	300

Table 4 Two-row Angular Contact Thrust Ball Slewing Bearings μm

Dpw mm		Tolerance Classes					
		G		E		D	
		Axial Clearance					
Over	Incl	Min	Max	Min	Max	Min	Max
280	450	50	130	30	90	25	70

450	710	70	170	40	120	30	90
710	1120	100	220	50	150	40	120
1120	1800	100	260	60	180	40	140
1800	2800	150	350	80	240	60	180
2800	4500	200	440	100	300	80	240

Table 5 Crossed Cylindrical Roller Slewing Bearings μm

Dpw mm		Tolerance Classes					
		G		E		D	
		Axial Clearance					
Over	Incl	Min	Max	Min	Max	Min	Max
280	450	50	130	30	90	25	70
450	710	70	170	40	120	30	90
710	1120	100	220	50	150	40	120
1120	1800	100	260	60	180	40	140
1800	2800	150	350	80	240	60	180
2800	4500	200	440	100	300	80	240

Table 6 Three-row Cylindrical Roller Combination Slewing Bearings μm

Dpw mm		Tolerance Classes					
		G		E		D	
		Axial	Radial	Axial	Radial	Axial	Radial
Over	Incl	Min/Max	Min/Max	Min/Max	Min/Max	Min/Max	Min/Max
280	450	30/90	50/130	25/70	30/90	10/50	25/70
450	710	40/120	70/170	30/90	40/120	15/65	30/90
710	1120	50/150	100/220	40/120	50/150	20/80	40/120
1120	1800	60/180	100/260	40/140	60/180	20/100	40/140
1800	2800	80/240	150/350	60/180	80/240	30/130	60/180
2800	4500	100/300	200/440	80/240	100/300	40/160	80/40

PACKING AND STORAGE

All UIPI slewing bearings leave their factory with rust inhibitor lubricant coatings on both the inner and outer surfaces. Bearings are generally Kraft paper wrapped, with larger bearings have an additional Poly-wrap seal. Individual wooden packaging is for larger bearings, these packaging systems allow for easier transportation, handling and storage.

Bearings should be stored in a clean, dry and chemical free environment, (not outside). They should be well supported preferably on a flat surface in the horizontal position, if several bearings of equal size are to be stored they should be stacked, again, in the horizontal position with equal in size dividing blocks at a minimum 120 degrees around the top and bottom of the corresponding surfaces of each bearing.

These bearings can be stored for up to 12 months from the date of manufacture without any additional maintenance. For bearings that remain in storage over 12 months these should have their grease and rust preventative coatings removed, once cleaned these surfaces should be re-coated and the bearing re-greased, UIPI recommend that guidance should be sought from UIPI in order to carry out this storage maintenance task, should it be required.



LUBRICATION AND SEALS

In order to ensure that bearings perform inline with specifications and customer requirements they are generally greased prior to delivery to the customer unless otherwise specified by the customer to be only lightly lubed. The choice of grease can also be a critical item in the design and performance criteria, consideration should be provided to the bearings working environment, some of these considerations are: speed, temperature, pressure and the possibility of contamination ingress. The most common greases used today for general applications are Calcium or Lithium soap based greases, with Aluminum based grease being used in higher temperature applications.

Seals play another important part in the bearings ability to perform correctly and aid in its reliability and longevity during its service life. The prime objective of these mechanisms is to ensure that contaminants e.g.: water or any type of dust particles are not allowed to enter the rolling elements or their corresponding raceways, and retain lubrication. Generally Nitrile seals are used; however, Labyrinth, Nylon, or Teflon configurations can be applied for even more effective sealing solutions. The selection of a particular sealing solution, in many respects, is focused on the bearings working environment.

INSTALLATION

UIPI take great care in producing slewing bearings for their customers, these rings, balls & rollers are precision bearing components, it is important that the assembler take care to install these bearings inline with the manufacturer's instructions, in order to ensure efficient and effective operation of their customer's equipment. Prior to installation a close inspection should be performed so as to ensure that upper and lower mounting surfaces are flat



level and parallel to each other (see Table & Graph opposite), these surfaces should be paint free, free from indentations, burrs or any other contaminant that could cause distortion or misalignment between the inner and outer ring when mounted to their corresponding surfaces. The surfaces themselves should have sufficient hardness and have such a structure so as to avoid distortion or deflection when the bearing is under load. Table 8 opposite provides clear indication as to the acceptance criteria for mounting surfaces for these types of bearings. The bearing should be brought into position by either firmly secured eyebolts or nylon straps, in both cases a minimum of three supports should be applied. The UIPI slewing bearing has a soft zone marked with an "S" on the outer-ring; this location is in direct line with the load-hole plug, it is important that this area is located at 90 degrees to the major load zone. In order to ensure that the bearing is operating with minimum torque install the lock down bolts but do not tighten, measure this torque value over 360 degrees so as to ensure correct alignment for both inner and outer ring, also any pinion gear drive that may apply. Providing these resistances are acceptable then the lock down may begin in the transverse directional manner, prior to this lock down there should be enough pre-load applied to equal 70% of the field limit. Bolts should be torqued in accordance with their size, grade and bolt manufacturers specification, Table 9 shows an indication as to these recommended values, the use of any type of lock washer is prohibited from any slewing ring installations.

Table 8 Technical Specifications for Bearing Surface

Center Hole diameter D1 or D2 mm		Flatness a			Deviation of inclination pitch with same direction on circle adjacent unit length (L=a row pitch)			Deviation of inclination pitch with opposite direction on circle adjacent unit length (L=a row pitch)			Inclination pitch of radial width b δ			Surface roughness Ra							
OVER TO		Class of Bearing																			
		G	E	D	G	E	D	G	E	D	G	E	D	G	E	D					
250	400	120	80	50	0.0002 L	0.00013 L	0.00008 L	0.0002 L	0.00013 L	0.00008 L	60	40	25	2.5	1.25	0.8					
400	630	150	100	60							80	50	30	2.5	12.5	0.8					
630	1000	200	120	80							100	60	40	2.5	12.5	0.8					
1000	1600	250	150	100							120	80	50	3.2	2.5	1.25					
1600	2500	300	200	120							150	100	60	3.2	2.5	1.25					
2500	4000	400	250	150							200	120	80	3.2	2.5	1.25					
4000	6300	500	300	200	250 150 100 3.2 2.5 1.25																

Table 9:

Strength class of bolt ISO898			8.8			10.9			12.9		
limit of yielding			M≤16 640			940			1100		
N/mm2			M < 16 660								
Dia.	Stress area	Section area	Pre- tighteni ng force	Theoretic al fastener moment	torque NM	Pre- tightening force	Theoretic al fastener moment	torque NM	Pre-tightening force	Theoretic al fastener moment	torque NM
	mm2	mm2	FMN	MANm	M=0.9 MA	FMN	MANm	M=0.9 MA	FMN	MANm	M=0.9 MA
M5	14.2	12.7	6400	6.1	5.5	9300	8.9	8	10900	10.4	9.3
M6	20.1	17.9	9000	10.4	9.3	13200	15.5	13.9	15400	18	16.2
M8	36.6	32.8	16500	25	22.5	24200	37	33	28500	43	38
M10	58	52.3	26000	51	45	38500	75	67	45000	87	78
M12	84.3	76.2	38500	87	78	56000	120	117	66000	150	135
M14	115	105	53000	140	126	77000	205	184	90000	240	216
M16	157	144	72000	215	193	106000	310	279	124000	370	33
M18	193	175	91000	300	270	129000	430	387	151000	510	459
M20	245	225	117000	430	387	166000	620	558	194000	720	648
M22	303	282	146000	580	522	208000	830	747	24300	970	873
M24	353	324	168000	740	666	239000	1060	954	280000	1240	1116
M27	459	427	221000	1100	990	315000	1550	1395	370000	1850	1665
M30	561	519	270000	1500	1350	385000	2100	1890	450000	2500	2250
M33	694	647	335000			480000			560000		
M36	817	759	395000			560000			660000		
M39	976	913	475000			670000			790000		
M42	1120	1045	542000	need bolt liquor		772000	need bolt liquor		904000	need bolt liquor	
M45	1300	1224	635000	straining device		905000	straining device		1059000	straining device	
M48	1470	1377	714000			1018000			1191000		
M52	1760	1652	857000			1221000			1429000		
M56	2030	1905	989000			1408000			1648000		
M60	2360	2227	1156000			1647000			1927000		

MAINTENANCE

In-order to ensure optimum performance and longevity of UIPI slewing bearings in operation UIPI recommend that after the first 100 hours of operation that the preload is checked and adjusted (if required) to the installation value. Re-lubrication should be applied preferably with the slow rotation of the bearing at the same time as injecting grease, in order to apply even distribution of the grease. Greasing should generally take place after 100 hours of operation, where the application is in fast turning equipment or in a continuous cycle operation then this re-greasing should take place after 8 hours of operation. If gears or pinion drives are integrated into these applications then this gearing should also be greased at these intervals. When these bearings are operating in extremely hostile

conditions e.g.: extreme temperatures, excessively dusty environment or within a high moisture content environment then it is recommended that greasing intervals be closely reviewed, the UIPI SR Technical Department will advise their customers on such issues as this. Automatic Greasing systems can be applied to these Bearings; however, this does not eliminate the visual inspections and bolt/mounting tension checks that are required periodically.

CALCULATIONS FOR THE TYPE & SELECTION

Unlike most other bearing applications slewing bearings are quiet often found to be working under extremely arduous conditions, typically misalignment (tilting), moment and impact loads are experienced regularly if not continually. Other factors to take into consideration are the physical constraints, circumferential forces that are incurred by any gear transmission. The previous and following sections in this catalog are only to serve as a guide towards a general understanding of the principals of slewing bearings. As mentioned previously UIPI suggest that customers **use** the **Customer Bearing Application Date**. Working with the content of these questionnaires and collaboration directly with the customer allows UIPI to propose the most economical and "**Best Fit Solution**" for their customers.

LOAD CURVE CALCULATIONS

In order to understand the dynamics of applied forces and the bearings theoretical limitations during an operational mode UIPI use well proven international formulas to show their bearings performance and limitations, much of this input data is initially extracted from the **Customer Bearing Application Date**. This input data can be used in a number of different models in order to find the "**Best Fit Solution**". The results of these load and service life curves etc provide a good understanding for the customer as to what they can expect from their bearing selection. The load Curve Calculations shown opposite are for slewing bearings and are based on bearings being manufactured from 42CrMo, the allowance for the contact stress of these balls in this bearing are 3850Mpa, whilst that of the roller bearing is 2700Mpa. Curve 2 shows the carrying curve of the dynamic load rating with 90% reliability at 0.03×10^6 revolutions. Curve 3 shows the carrying curve of an allowed dead load when the slewing bearing is manufactured from 50Mn, the allowed contact stress for these balls within this bearing is 3400Mpa, whilst that of roller bearing would be 2100Mpa. The limiting load curve of a bolt is confirmed when the connected length is 4 times longer than the nominal diameter, and the pre-load is 70% of the yield limit of the bolt. The load and bolt curve drawings shown in this catalog are only a small selection of the products currently available from UIPI. If the part number you have selected does not have carrying curve drawing illustrated within this catalog then you should contact **UIPI** to obtain the carrying curve you require.

Customer Bearing Application Data

Mail to us : sales@ui-pi.com

Please answer the questions on this form as completely as possible, include a drawing (or sketch) of the application if available. Be sure to show all parts and information relevant to the application. The data you supply is the basis for our recommendation. There's no obligation on your part, of course.

To: Universal Industrial Products Inc. Date: _____
 900E. Hamilton Ave. Ste. 100
 Campbell, CA 95008

From: Name: _____ Title: _____
 Company: _____ Tel: _____
 Address: _____
 Application: _____

☐ Experimental ☐ Prototype ☐ Production ☐ Spec. Machine ☐ Other

☐ Original Equipment Mfg. ☐ Replacement ☐ Own Use ☐ Resale

Annual Usage: _____ Quotation Quantity: _____

Loads:

Condition	Loads			RPM		Percent of Time
	Axial	Radial	Moment	Max.	Mean	
1						
2						
3						
4						
5						

Vibration or shock? _____ Describe _____

Factor of Safety of _____ (is) (is not) included in loads above.

Life Hours (Min.) _____ Hours (Avg.) _____ Other _____

Temperature Normal Operating _____ °F Minimum _____ °F Maximum _____ °F

Differential between shaft and housing _____

Lubrication Proposed lubricant _____ and method _____

Bearing Preferred Size: Bore _____ Outside Dia. _____ Width _____

Min. Bore _____ Max. Outside Dia. _____ Max. Width _____

Preferred Type: _____

Bearing Axis in (Vertical) (Horizontal) position with (Outer) (Inner) race rotation relative to load.

Gear Internal or External Tooth Form PD DP Face Width

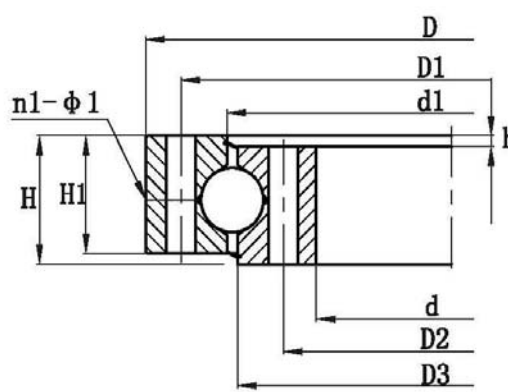
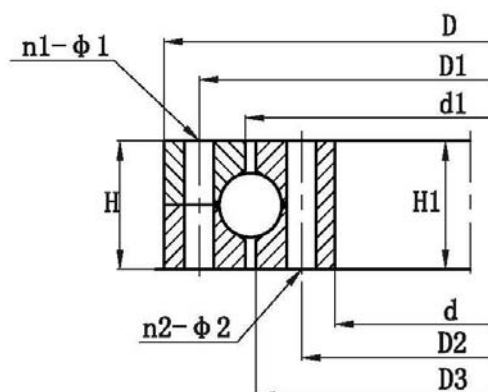
Special

requirements (Materials, Torque, Oscillating Motion, Accuracy Seals, Protective Coatings, etc.) _____

Date required _____

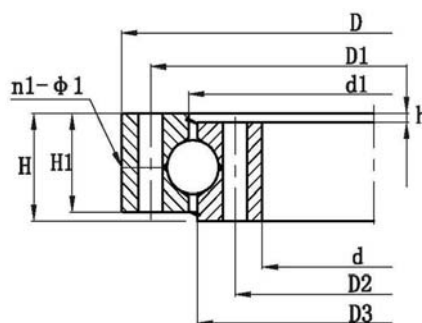
Comments: _____

SINGLE ROW BALL SLEWING BEARING (UNGEARED)



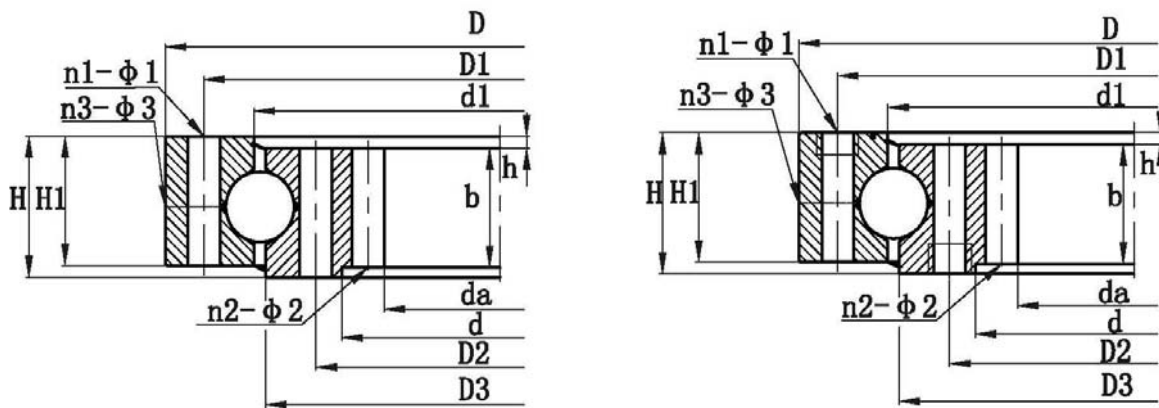
Designation	Boundary dimensions			Bolt hole diameter						Structure dimensions						Basic load ratings coa	Mass
	D	d	H	D1	D2	n1	n2	φ1	φ2	D3	d1	H1	h	n3	φ3		
	mm	mm	mm	mm	mm			mm	mm	mm	mm	mm	mm		mm	104 N	kg
NGSBM 480.260.60	480	260	60	444	296	16	16	14	14	360	380	60	--	--	--	75.4	55
NGSBM 590.460.45	590	460	45	570	488	8	12	M10	10	518	542	45	--	--	--	62.6	35.9
NGSBM 780.530.60	780	530	60	740	560	20	20	17	13	645	665	35	--	--	--	112	103
NGSBM 720.560.36	720	560	36	690	590	12	12	14	12	638.5	641.5	33	3	--	--	70.8	40.3
															--		
NGSBM 780.560.60	780	560	60	--	--	--	--	--	--	645	668	60	3	--	--	224	103
NGSBM 780.630.69	780	630	69	--	--	--	--	--	--	718	722	69	--	--	--	111	79.4
NGSBM 900.700.36	900	700	36	860	740	12	12	M16	17	796	804	36	3	--	--	179	60
NGSBM 950.760.80	950	760	80	915	795	24	24	18	M16	853.5	856.5	71	9	4	M1081	203	138
NGSBM 1000.775.64	1000	775	64	948	802	24	12/12	M12	13/M12	878	882	49	15	2	M8*1	196	112
NGSBM 1050.800.90	1050	800	90	1012	838	30	30	20	20	923	927	76	16	3	M10*1	215	192
NGSBM 1120.850.85	1120	850	85	1074	924	12	12	M20	22	995	1010	85	--	--	--	151	248
NGSBM 1200.932.120	1200	932	120	1148	984	40	40	26	M24	1064	1068	100	20	4	G1/4IN	349	328
NGSBM 1165.960.90	1165	960	90	1135	1040	36	36	18	M16	1073	1077	78	14	6	M10*1	249	202
NGSBM 1250.1000.100	1250	1000	100	1206	1044	12	12	18	M16	1123	1127	90	10	3	M10*1	540	283
NGSBM 1509.1260.90	1509	1260	90	1465	1315	36	36	22	M20	1386	1389	70	14	2	ZG1/8in	378	274
NGSBM 1820.1400.136	1820	1400	136	1750	1470	24	24	35	35	1608	1612	136	--	4	M10*1	611	1114
NGSBM 1780.1440.100	1780	1440	100	1730	1494	48	48	22	M20	1618	1622	85	15	4	M12*1.25	503	533
NGSBM 1927.1628.130	1927	1628	130	1875	1680	36	36	26	M24	1774	1778	115	15	6	G1/4in	692	732
NGSBM 2000.1700.150	2000	1700	150	1950	1750	24	24	21	21	1842	1858	130	20	4	M10*1	684	826
NGSBM 1050.832.56	1050	832	56	1020	862	12	12	18	18	942	946	45	--	4	M6	227	52.5
NGSBM 485.275.55	485	275	55	453	307	16	12	18	M16	381	386	50	5	4	M10*1	87.2	43.7
NGSBM 440.240.55	440	240	55	400	280	18	18	M20-7H	22	340	342	50	5	3	M10*1	78.2	34.7

SINGLE ROW BALL SLEWING BEARING (UNGEARED)



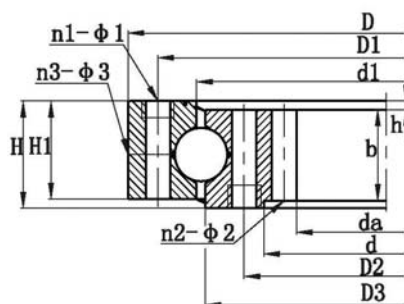
Designation	Boundary dimensions			Bolt hole diameter				Structure dimensions						Basic load ratings coa	Weight
	D	d	H	D1	D2	n	φ	D3 (D3')	d1 (d1')	H1	h	n3	φ3		
	mm			mm		mm		mm					mm	10 ⁴ N	kg
NGSBM 602.398.80	602	398	80	566	434	20	18	498.5	501.5	70	10	4	m10x1	129	75.8
NGSBM 662.458.80	662	458	80	626	494	20	18	558.5	561.5	70	10	4	m10x1	144	94
NGSBM 732.528.80	732	528	80	696	564	24	18	628.5	631.5	70	10	4	m10x1	187	110
NGSBM 812.608.80	812	608	80	776	644	24	18	708.5	711.5	70	10	4	m10x1	212	120
NGSBM 1098.893.90	1098	893	90	1060	845	48/47	22	956.5	953.5	71	19	6	m10x1	270	126
NGSBM 922.678.100	922	678	100	878	722	30	22	798.5	801.5	90	10	6	m10x1	313	256
NGSBM 1022.778.100	1022	778	100	978	822	30	22	898.5	901.5	90	10	6	m10x1	355	240
NGSBM 1122.878.100	1122	878	100	1078	922	36	22	998.5	1001.5	90	10	6	m10x1	394	305
NGSBM 1242.998.100	1242	998	100	1198	1042	36	22	1118	1122	90	10	6	m10x1	443	300
NGSBM 1390.1110.110	1390	1110	110	1337	1163	40	26	1248	1252	100	10	6	m10x1	554	420
NGSBM 1540.1260.110	1540	1260	110	1487	1313	40	26	1398	1402	100	10	6	m10x1	617	480
NGSBM 1740.1460.110	1740	1460	110	1687	1513	45	26	1598	1602	100	10	8	m10x1	702	550
NGSBM 1940.1660.110	1940	1660	110	1887	1713	45	26	1798	1802	100	10	8	m10x1	793	610
NGSBM 2178.1825.144	2178	1825	144	2110	1891	48	33	1998	2002	132	12	8	m10x1	1210	1100
NGSBM 2418.2065.144	2418	2065	144	2350	2131	48	33	2237.5	2242.5	132	12	8	m10x1	1350	1250
NGSBM 2678.2325.144	2678	2325	144	2610	2391	56	33	2497.5	2502.5	162	12	8	m10x1	1500	1400
NGSBM 2978.2625.144	2978	2625	144	2910	2691	56	33	2797.5	2802.5	162	12	8	m10x1	1680	1600
NGSBM 3376.2922.174	3376	2922	174	3286	3014	56	45	3147.5	3152.5	162	12	8	m10x1	2380	2800
NGSBM 3776.3322.174	3776	3322	174	3686	3414	56	45	3547.5	3552.5	162	12	8	m10x1	2690	3200
NGSBM 4226.3772.174	4226	3772	174	4136	3864	60	45	3997.5	4002.5	162	12	10	m10x1	3020	3600
NGSBM 4726.4272.174	4726	4272	174	4636	4364	60	45	4497.5	4502.5	162	12	10	m10x1	3410	4000

SINGLE ROW BALL SLEWING BEARING (INTERNAL GEAR)



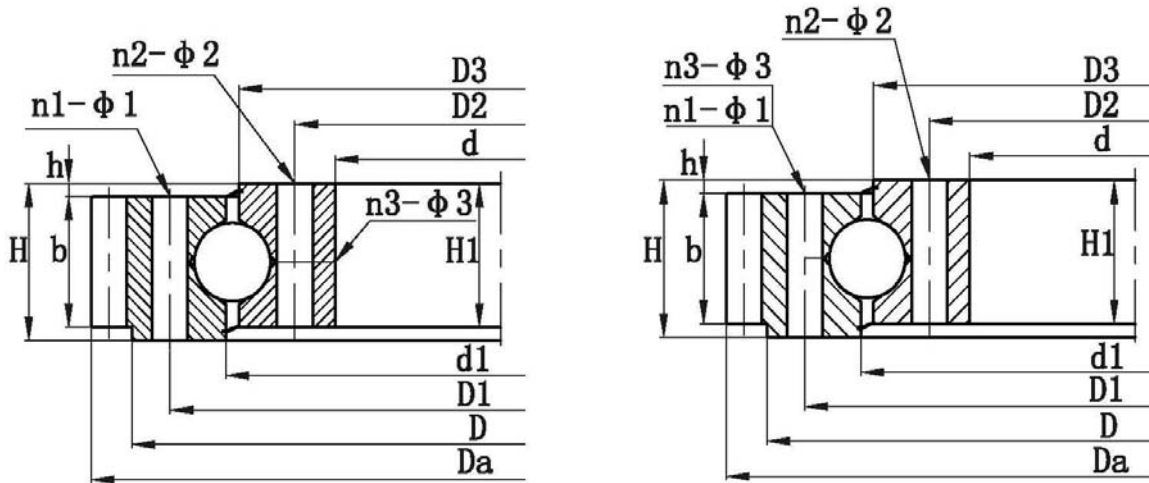
Designation	Boundary dimensions			Bolt hole diameter						Structure dimensions						Gear parameters						Basic load ratings coa	Weight
	D	d	H	D1	D2	n1	n2	φ1	φ2	D3	d1	H1	h	n3	φ3	m	Da	Z	b	x			
	mm			mm				mm		mm					mm		mm		mm		10 ⁴ N	kg	
IGSBM 976.850.80	976	850	80	--	--	--	--	--	--	916	919	80	--	--	--			456	20	0	174	117	
IGSBM 1200.850.56	1200	--	56	1170	1044	24	16	17.5	10.5	1088	1092	46	12	4	M8*1	6	2916	166	44	0	210	84.1	
IGSBM 1270.1000.100	1270	1000	100	1220	1050	24	24	17/M	/M12	1133	1177	85	15	2	M10*1	6	985	164	70	0	384	322	
IGSBM 1530.1210.122	1530	1210	122	1480	1260	40	40	26	26	1368	1372	108	12	4	M10*1	10	972.6	118	80	0	713	540	
IGSBM 1715.1400.110	1715	1400	110	1660	1460	24	24	M20	M20	1558	1562	95	15	2	M12*1.25	6	1364.5	230	7	-0.35	365	545	
IGSBM 1715.1400.110	1715	1400	110	1660	1460	24	24	23	23	1558	1562	95	15	2	M10*1	6	1364.5	230	77	-0.35	365	545	
IGSBM 1780.1440.100	1780	1440	100	1730	1494	48	48	22	M20	1618	1622	85	10	4	M12*1.25	8	1400	177	50	0	503	554	
IGSBM 1780.1440.104	1780	1440	104	1730	1494	48	48	22	M20	1613	1627	87	10	6	M12*1.25	8	1400	177	52	0	578	555	
IGSBM 1875.1525.140	1875	1525	140	1815	1585	42	42	29	29	1698	1702	122	17	4	M12*1.25	16	1452.33	92	110	+0.35	873	1019	
IGSBM 2050.1790.112	2050	1790	112	2006	1847	72	36	22	22	1925	1926	92	12	18	M10*1	16	1712	108	100	-0.5	604	663	
IGSBM 2488.2230.160	2488	2230	160	2445	2275	48	48	M20	M22	2337.5	2342.5	135	5	8	ZG1/4in	18	2144.25	121	145	0	1247	1114	
IGSBM 2500.2240.140	2500	2240	140	2454	2280	56	56	M24	M24	2357.5	2362.5	115	5	8	M14*1.5	18	2145.6	121	125	0	856	1161	
IGSBM 2990.2735.160	2990	2735	160	2954	2770	48	48	M20	M24	2835	2845	135	5	8	ZG1/4in	22	2624.62	121	144	0	1559	1457	

SINGLE ROW BALL SLEWING BEARING (INTERNAL GEAR)



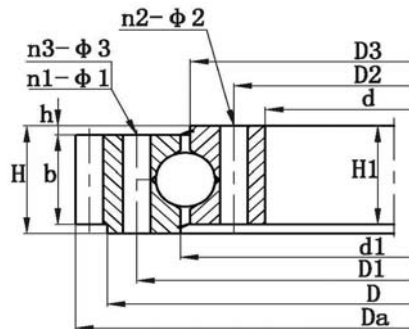
Designation	Boundary dimensions			Bolt hole diameter				Structure dimensions						Gear parameters								Basic load ratings coa	Weight
	D	d	H	D1	D2	n	φ	D3 (D3')	d1 (d1')	H1	h	n3	φ3	m	Da	Z	da	Z	b	x			
	mm			mm		mm		mm							mm		mm		mm		10 ⁴ N		
IGSBM 602.398.80	602	398	80	566	434	20	18	498.5	501.5	70	10	4	m10x1	5	630	123	365	74	60	+0.5	129	75.8	
IGSBM 662.458.80	662	458	80	626	494	20	18	558.5	561.5	70	10	4	m10x1	5	690	135	425	86	60	+0.5	144	94	
IGSBM 732.528.80	732	528	80	696	564	24	18	628.5	631.5	70	10	4	m10x1	6	774	126	492	83	60	+0.5	187	110	
IGSBM 812.608.80	812	608	80	776	644	24	18	708.5	711.5	70	10	4	m10x1	6	852	139	570	86	60	+0.5	212	120	
IGSBM 922.678.100	922	678	100	878	722	30	22	798.5	801.5	90	10	6	m10x1	8	968	118	632	80	80	+0.5	313	256	
IGSBM 1022.778.100	1022	778	100	978	822	30	22	898.5	901.5	90	10	6	m10x1	8	1064	130	736	93	80	+0.5	355	240	
IGSBM 1122.878.100	1122	878	100	1078	922	36	22	998.5	1001.5	90	10	6	m10x1	10	1190	116	820	83	80	+0.5	394	305	
IGSBM 1242.998.100	1242	998	100	1198	1042	36	22	1118	1122	90	10	6	m10x1	10	1300	127	940	95	80	+0.5	443	300	
IGSBM 1390.1110.110	1390	1110	110	1337	1163	40	26	1248	1252	100	10	6	m10x1	12	1452	118	1044	88	90	+0.5	554	420	
IGSBM 1540.1260.110	1540	1260	110	1487	1313	40	26	1398	1402	100	10	6	m10x1	12	1608	131	1188	100	90	+0.5	617	480	
IGSBM 1740.1460.110	1740	1460	110	1687	1513	45	26	1598	1602	100	10	8	m10x1	14	1820	127	1386	100	90	+0.5	702	550	
IGSBM 1940.1660.110	1940	1660	110	1887	1713	45	26	1798	1802	100	10	8	m10x1	14	2016	141	1568	113	90	+0.5	793	610	
IGSBM 2178.1825.144	2178	1825	144	2110	1891	48	33	1998	2002	132	12	8	m10x1	16	2272	139	1728	109	120	+0.5	1210	1100	
IGSBM 2418.2065.144	2418	2065	144	2350	2131	48	33	2237.5	2242.5	132	12	8	m10x1	16	2496	153	1984	125	120	+0.5	1350	1250	
IGSBM 2678.2325.144	2678	2325	144	2610	2391	56	33	2497.5	2502.5	162	12	8	m10x1	18	2772	151	2232	125	120	+0.5	1500	1400	
IGSBM 2978.2625.144	2978	2625	144	2910	2691	56	33	2797.5	2802.5	162	12	8	m10x1	18	3078	168	2520	141	120	+0.5	1680	1600	
IGSBM 3376.2922.174	3376	2922	174	3286	3014	56	45	3147.5	3152.5	162	12	8	m10x1	20	3480	171	2820	142	150	+0.5	2380	2800	
IGSBM 3776.3322.174	3776	3322	174	3686	3414	56	45	3547.5	3552.5	162	12	8	m10x1	20	3880	191	3220	162	150	+0.5	2690	3200	
IGSBM 4226.3772.174	4226	3772	174	4136	3864	60	45	3997.5	4002.5	162	12	10	m10x1	22	4334	194	3652	167	150	+0.5	3020	3600	
IGSBM 4726.4272.174	4726	4272	174	4636	4364	60	45	4497.5	4502.5	162	12	10	m10x1	22	4840	271	4158	190	150	+0.5	3410	4000	

SINGLE ROW BALL SLEWING BEARING (EXTERNAL GEAR)



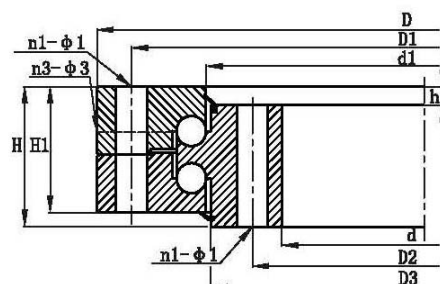
Designation	Boundary dimensions			Bolt hole diameter				Structure dimensions						Gear parameters					Basic load ratings coa	Weight		
	D	d	H	D1	D2	n1	n2	φ1	φ2	D3	d1	H1	h	n3	φ3	m	Da	Z			b	x
	mm			mm				mm		mm					mm		mm		mm		10 ⁴ N	kg
EGSBM 694.470.77	694	470	77	630	500	18	18	M16	18	567.5	564.5	64	13	6	M10*1	6	696	114	60	0	157	93.1
EGSBM 786.600.72	786	600	72	740	636	24	20	M18*2.5	19	689	691	60	7	4	ZG1/8in	6	789	131	50	0	107	94.1
EGSBM 853.674.70	853	674	70	825	709	23	34	20	M20	764	768	59	10	2	ZG1/8in	7	889	125	50	0	183	89
EGSBM 853.674.70	853	674	70	825	709	24	34	18	18	764	768	59	10	2	ZG1/8in	7	889	125	50	0	183	88.6
EGSBM 894.710.67	894	710	67	845	744	8	8	M10	M10	798	806	58	9	3	M10*1	6	924	152	55	0	179	107
EGSBM 894.710.67	894	710	67	875	760	12	8	M10	M12	798	806	58	9	3	M10*1	6	924	152	55	0	179	107
EGSBM 894.710.67	894	710	67	865	744	20	20	13	13	798	806	58	9	4	M10*1	6	924	152	55	0	179	107
EGSBM 1050.800.90	1050	800	90	1012	838	30	30	20	20	923	927	76	16	3	M10*1	6	1092	180	60	0	215	217
EGSBM 1050.800.90	1050	800	90	1012	838	30	30	20	20	923	927	76	16	3	M10*1	6	1092	180	60	0	215	217
EGSBM 1335.1060.109	1335	1060	109	1295	1105	24	24	M20	22	1198	1202	100	9	4	M8*1	10	1388	138	80	-0.6	501	407
EGSBM 1365.1075.120	1365	1075	120	1310	1130	36	36	26	26	1218	1222	105	15	4	m8*1	8	1424	176	90	0	463	463
EGSBM 1365.1075.130	1365	1075	130	1310	1130	36	36	24	24	1218	1222	105	10	--	--	10	1420	140	120	0	463	550
EGSBM 1365.1075.120	1365	1075	120	1310	1130	36	36	24	24	1218	1222	105	15	4	M10*1	10	1424.91	138	90	+1.4	463	463
EGSBM 1365.1075.120	1365	1075	120	1310	1130	36	36	M24	26	1218	1222	105	15	4	M8*1	8	1424	176	90	0	463	463
EGSBM 1475.1330.82.4	1475	1330	82.4	1510	1362	24	24	18.5	18.5	1439	1445	70	12.4	6	M10*1	9	1584	174	70	0	353	280
EGSBM 1407.1352.100	1407	1352	100	1370	1404	13	18	M8	M10	1390	1394	63	--	8	6	4.5	1449	320	60	0	216	143
EGSBM 2050.1640.160	2050	1640	160	1990	1710	30	30	28	28	1844	1856	140	20	2	M14*1.5	10	2108	210	105	-0.6	1118	1264
EGSBM 1945.1700.120	1945	1700	120	1900	1750	24	24	M18	21	1825	1845	110	10	4	M10*1	5	1970	392	35	0	405	516
EGSBM 2052.1700.100	2052	1700	100	1980	1780	4	24	20	M18	1878	1882	97	10	4	M14*1.5	5	2080	414	50	0	551	678
EGSBM 2885.2650.100	2885	2650	100	2850	2700	48	48	M20	M20	2777	2781	80	10	6	ZG1/4in	12	2949.6	244	80	0	913	751

SINGLE ROW BALL SLEWING BEARING (EXTERNAL GEAR)



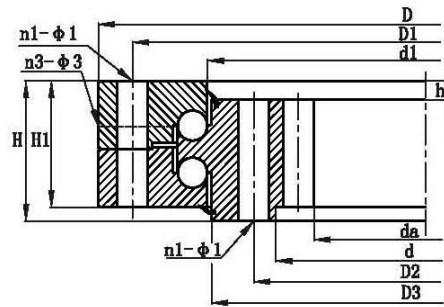
Designation	Boundary dimensions			Bolt hole diameter				Structure dimensions							Gear parameters								Basic load ratings coa	Weight
	D	d	H	D1	D2	n	φ	D3 (D3')	d1 (d1')	H1	h	n3	φ3	m	Da	Z	da	Z	b	x				
	mm			mm		mm		mm					mm		mm		mm		mm		10 ⁴ N	kg		
EGSBM 602.398.80	602	398	80	566	434	20	18	498.5	501.5	70	10	4	m10x1	5	630	123	365	74	60	+0.5	129	75.8		
EGSBM 662.458.80	662	458	80	626	494	20	18	558.5	561.5	70	10	4	m10x1	5	690	135	425	86	60	+0.5	144	94		
EGSBM 732.528.80	732	528	80	696	564	24	18	628.5	631.5	70	10	4	m10x1	6	774	126	492	83	60	+0.5	187	110		
EGSBM 812.608.80	812	608	80	776	644	24	18	708.5	711.5	70	10	4	m10x1	6	852	139	570	86	60	+0.5	212	120		
EGSBM 922.678.100	922	678	100	878	722	30	22	798.5	801.5	90	10	6	m10x1	8	968	118	632	80	80	+0.5	313	256		
EGSBM 1022.778.100	1022	778	100	978	822	30	22	898.5	901.5	90	10	6	m10x1	8	1064	130	736	93	80	+0.5	355	240		
EGSBM 1122.878.100	1122	878	100	1078	922	36	22	998.5	1001.5	90	10	6	m10x1	10	1190	116	820	83	80	+0.5	394	305		
EGSBM 1242.998.100	1242	998	100	1198	1042	36	22	1118	1122	90	10	6	m10x1	10	1300	127	940	95	80	+0.5	443	300		
EGSBM 1390.1110.110	1390	1110	110	1337	1163	40	26	1248	1252	100	10	6	m10x1	12	1452	118	1044	88	90	+0.5	554	420		
EGSBM 1540.1260.110	1540	1260	110	1487	1313	40	26	1398	1402	100	10	6	m10x1	12	1608	131	1188	100	90	+0.5	617	480		
EGSBM 1740.1460.110	1740	1460	110	1687	1513	45	26	1598	1602	100	10	8	m10x1	14	1820	127	1386	100	90	+0.5	702	550		
EGSBM 1940.1660.110	1940	1660	110	1887	1713	45	26	1798	1802	100	10	8	m10x1	14	2016	141	1568	113	90	+0.5	793	610		
EGSBM 2178.1825.144	2178	1825	144	2110	1891	48	33	1998	2002	132	12	8	m10x1	16	2272	139	1728	109	120	+0.5	1210	1100		
EGSBM 2418.2065.144	2418	2065	144	2350	2131	48	33	2237.5	2242.5	132	12	8	m10x1	16	2496	153	1984	125	120	+0.5	1350	1250		
EGSBM 2678.2325.144	2678	2325	144	2610	2391	56	33	2497.5	2502.5	162	12	8	m10x1	18	2772	151	2232	125	120	+0.5	1500	1400		
EGSBM 2978.2625.144	2978	2625	144	2910	2691	56	33	2797.5	2802.5	162	12	8	m10x1	18	3078	168	2520	141	120	+0.5	1680	1600		
EGSBM 3376.2922.174	3376	2922	174	3286	3014	56	45	3147.5	3152.5	162	12	8	m10x1	20	3480	171	2820	142	150	+0.5	2380	2800		
EGSBM 3776.3322.174	3776	3322	174	3686	3414	56	45	3547.5	3552.5	162	12	8	m10x1	20	3880	191	3220	162	150	+0.5	2690	3200		
EGSBM 4226.3772.174	4226	3772	174	4136	3864	60	45	3997.5	4002.5	162	12	10	m10x1	22	4334	194	3652	167	150	+0.5	3020	3600		
EGSBM 4726.4272.174	4726	4272	174	4636	4364	60	45	4497.5	4502.5	162	12	10	m10x1	22	4840	271	4158	190	150	+0.5	3410	4000		

DOUBLE ROW BALL SLEWING BEARINGS (UNGEARED)



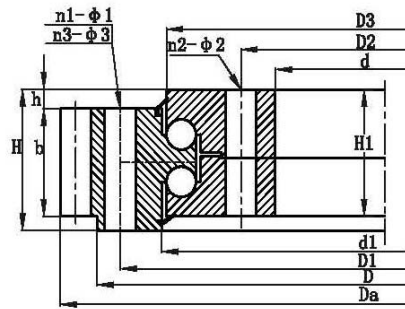
Designation	Boundary dimensions			Bolt hole diameter				Structure dimensions						Basic load ratings coa	Weight
	D	d	H	D1	D2	n	φ	D3 (D3')	d1 (d1')	H1	h	n3	φ3		
	mm			mm		mm		mm					mm		
UGDBM 616.384.106	616	384	106	580	420	20	18	523	517	96	26	4	M10x1	121	100
UGDBM 676.444.106	676	444	106	640	480	20	18	583	577	96	26	4	M10x1	134	115
UGDBM 746.514.106	746	514	106	710	550	24	18	653	647	96	26	4	M10x1	153	130
UGDBM 826.594.106	826	594	106	790	630	24	18	733	727	96	26	4	M10x1	173	140
UGDBM 942.658.124	942	658	124	898	702	30	22	828	822	114	29	6	M10x1	230	200
UGDBM 1042.758.124	1042	758	124	998	802	30	22	928	922	114	29	6	M10x1	258	250
UGDBM 1142.858.124	1142	858	124	1098	902	36	22	1028	1022	114	29	6	M10x1	286	300
UGDBM 1262.978.124	1262	978	124	1218	1022	36	22	1148	1142	114	29	6	M10x1	321	340
UGDBM 1426.1074.160	1426	1074	160	1374	1126	40	26	1286	1282	150	39	6	M10x1	482	580
UGDBM 1576.1224.160	1576	1224	160	1524	1272	40	26	1436	1432	150	39	6	M10x1	543	650
UGDBM 1776.1424.160	1776	1424	160	1724	1476	45	26	1636	1632	150	39	8	M10x1	620	750
UGDBM 1976.1624.160	1976	1624	160	1924	1676	45	26	1836	1832	150	39	8	M10x1	692	820
UGDBM 2215.1785.190	2215	1785	190	2149	1851	48	33	2038	2032	178	47	8	M10x1	987	1150
UGDBM 2455.2025.190	2455	2025	190	2389	2091	48	33	2278	2272	178	47	8	M10x1	1110	1500
UGDBM 2715.2285.190	2715	2285	190	2649	2351	56	33	2538	2532	178	47	8	M10x1	1110	1500
UGDBM 3015.2585.190	3015	2585	190	2649	2651	56	33	2838	2832	178	47	8	M10x1	1390	1900
UGDBM 3428.2872.226	3428	2872	226	3338	2962	56	45	3198	3192	214	56	8	M10x1	1870	3300
UGDBM 3828.3272.226	3828	3272	226	3738	3362	56	45	3598	3592	214	56	8	M10x1	2110	3700
UGDBM 4278.3722.226	4278	3722	226	4188	3812	60	45	4048	4042	214	56	10	M10x1	2170	4200
UGDBM 4778.4222.226	4778	4222	226	4688	4312	60	45	4548	4542	214	56	10	M10x1	2670	4700

DOUBLE ROW BALL SLEWING BEARINGS (INTERNAL GEAR)



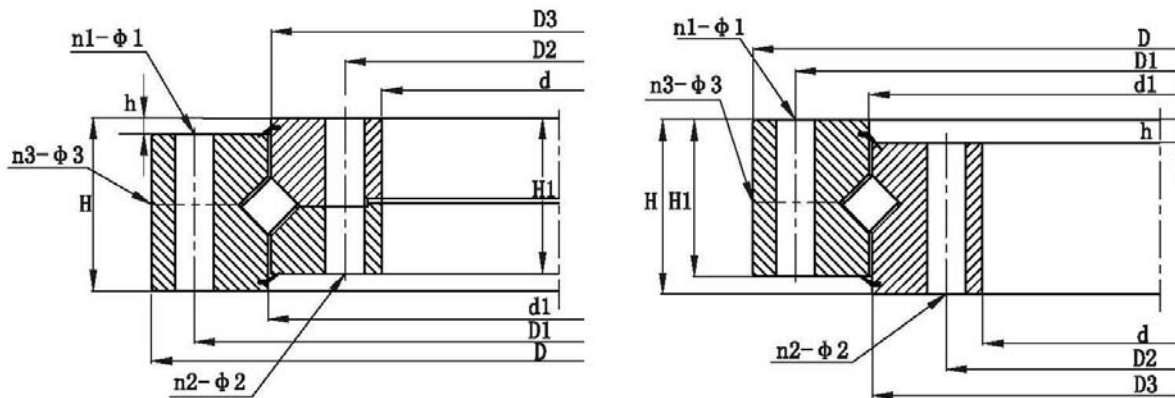
Designation	Boundary dimensions			Bolt hole diameter				Structure dimensions						Gear parameters								Basic load ratings coa	Weight
	D	d	H	D1	D2	n	φ	D3 (D3')	d1 (d1')	H1	h	n 3	φ3	m	Da	Z	da	Z	b	x			
	mm			mm			m m	mm					mm		mm		mm		mm	10 ⁴ N	kg		
IGDBM 616.384.106	616	384	106	580	420	20	18	523	517	96	26	4	M10x1	5	645	126	355	72	60	+0.5	121	100	
IGDBM 676.444.106	676	444	106	640	480	20	18	583	577	96	26	4	M10x1	5	705	138	415	84	60	+0.5	134	115	
IGDBM 746.514.106	746	514	106	710	550	24	18	653	647	96	26	4	M10x1	6	792	129	480	81	60	+0.5	153	130	
IGDBM 826.594.106	826	594	106	790	630	24	18	733	727	96	26	4	M10x1	6	864	141	558	94	60	+0.5	173	140	
IGDBM 942.658.124	942	658	124	898	702	30	22	828	822	114	29	6	M10x1	8	984	120	616	78	80	+0.5	230	200	
IGDBM 1042.758.124	1042	758	124	998	802	30	22	928	922	114	29	6	M10x1	8	1088	133	712	90	80	+0.5	258	250	
IGDBM 1142.858.124	1142	858	124	1098	902	36	22	1028	1022	114	29	6	M10x1	10	1200	117	810	82	80	+0.5	286	300	
IGDBM 1262.978.124	1262	978	124	1218	1022	36	22	1148	1142	114	29	6	M10x1	10	1320	129	920	93	80	+0.5	321	340	
IGDBM 1426.1074.160	1426	1074	160	1374	1126	40	26	1286	1282	150	39	6	M10x1	12	1500	122	1008	85	90	+0.5	482	580	
IGDBM 1576.1224.160	1576	1224	160	1524	1272	40	26	1436	1432	150	39	6	M10x1	12	1644	134	1152	97	90	+0.5	543	650	
IGDBM 1776.1424.160	1776	1424	160	1724	1476	45	26	1636	1632	150	39	8	M10x1	14	1848	129	1344	97	90	+0.5	620	750	
IGDBM 1976.1624.160	1976	1624	160	1924	1676	45	26	1836	1832	150	39	8	M10x1	14	2058	144	1540	111	90	+0.5	692	820	
IGDBM 2215.1785.190	2215	1785	190	2149	1851	48	33	2038	2032	178	47	8	M10x1	16	2304	141	1696	107	120	+0.5	987	1150	
IGDBM 2455.2025.190	2455	2025	190	2389	2091	48	33	2278	2272	178	47	8	M10x1	16	2544	156	1936	122	120	+0.5	1110	1500	
IGDBM 2715.2285.190	2715	2285	190	2649	2351	56	33	2538	2532	178	47	8	M10x1	18	2804	153	2196	123	120	+0.5	1110	1500	
IGDBM 3015.2585.190	3015	2585	190	2649	2651	56	33	2838	2832	178	47	8	M10x1	18	3114	170	2484	139	120	+0.5	1390	1900	
IGDBM 3428.2872.226	3428	2872	226	3338	2962	56	45	3198	3192	214	56	8	M10x1	20	3540	174	2760	139	150	+0.5	1870	3300	
IGDBM 3828.3272.226	3828	3272	226	3738	3362	56	45	3598	3592	214	56	8	M10x1	20	3940	194	3160	159	150	+0.5	2110	3700	
IGDBM 4278.3722.226	4278	3722	226	4188	3812	60	45	4048	4042	214	56	10	M10x1	22	4400	197	3608	165	150	+0.5	2170	4200	
IGDBM 4778.4222.226	4778	4222	226	4688	4312	60	45	4548	4542	214	56	10	M10x1	22	4884	219	4114	188	150	+0.5	2670	4700	

DOUBLE ROW BALL SLEWING BEARINGS (EXTERNAL GEAR)



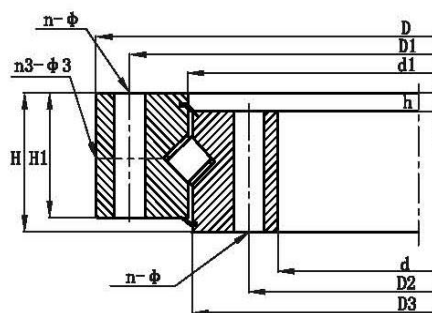
Designation	Boundary dimensions			Bolt hole diameter				Structure dimensions							Gear parameters							Basic load ratings coa	Weight
	D	d	H	D1	D2	n	φ	D3 (D3')	d1 (d1')	H1	h	n3	φ3	m	Da	Z	da	Z	b	x			
	mm			mm		mm		mm					mm		mm		mm		mm		10 ⁴ N	kg	
EGDBM 616.384.106	616	384	106	580	420	20	18	523	517	96	26	4	M10x1	5	645	126	355	72	60	+0.5	121	100	
EGDBM 676.444.106	676	444	106	640	480	20	18	583	577	96	26	4	M10x1	5	705	138	415	84	60	+0.5	134	115	
EGDBM 746.514.106	746	514	106	710	550	24	18	653	647	96	26	4	M10x1	6	792	129	480	81	60	+0.5	153	130	
EGDBM 826.594.106	826	594	106	790	630	24	18	733	727	96	26	4	M10x1	6	864	141	558	94	60	+0.5	173	140	
EGDBM 942.658.124	942	658	124	898	702	30	22	828	822	114	29	6	M10x1	8	984	120	616	78	80	+0.5	230	200	
EGDBM 1042.758.124	1042	758	124	998	802	30	22	928	922	114	29	6	M10x1	8	1088	133	712	90	80	+0.5	258	250	
EGDBM 1142.858.124	1142	858	124	1098	902	36	22	1028	1022	114	29	6	M10x1	10	1200	117	810	82	80	+0.5	286	300	
EGDBM 1262.978.124	1262	978	124	1218	1022	36	22	1148	1142	114	29	6	M10x1	10	1320	129	920	93	80	+0.5	321	340	
EGDBM 1426.1074.160	1426	1074	160	1374	1126	40	26	1218	1214	150	39	6	M10x1	14	1498	104	1008	73	90	+0.5	482	580	
EGDBM 1576.1224.160	1576	1224	160	1524	1272	40	26	1436	1432	150	39	6	M10x1	12	1644	134	1152	97	90	+0.5	543	650	
EGDBM 1776.1424.160	1776	1424	160	1724	1476	45	26	1636	1632	150	39	8	M10x1	14	1848	129	1344	97	90	+0.5	620	750	
EGDBM 1976.1624.160	1976	1624	160	1924	1676	45	26	1836	1832	150	39	8	M10x1	14	2058	144	1540	111	90	+0.5	692	820	
EGDBM 2215.1785.190	2215	1785	190	2149	1851	48	33	2038	2032	178	47	8	M10x1	16	2304	141	1696	107	120	+0.5	987	1150	
EGDBM 2455.2025.190	2455	2025	190	2389	2091	48	33	2278	2272	178	47	8	M10x1	16	2544	156	1936	122	120	+0.5	1110	1500	
EGDBM 2715.2285.190	2715	2285	190	2649	2351	56	33	2538	2532	178	47	8	M10x1	18	2804	153	2196	123	120	+0.5	1110	1500	
EGDBM 3015.2585.190	3015	2585	190	2649	2651	56	33	2838	2832	178	47	8	M10x1	18	3114	170	2484	139	120	+0.5	1390	1900	
EGDBM 3428.2872.226	3428	2872	226	3338	2962	56	45	3198	3192	214	56	8	M10x1	20	3540	174	2760	139	150	+0.5	1870	3300	
EGDBM 3828.3272.226	3828	3272	226	3738	3362	56	45	3598	3592	214	56	8	M10x1	20	3940	194	3160	159	150	+0.5	2110	3700	
EGDBM 4278.3722.226	4278	3722	226	4188	3812	60	45	4048	4042	214	56	10	M10x1	22	4400	197	3608	165	150	+0.5	2170	4200	
EGDBM 4778.4222.226	4778	4222	226	4688	4312	60	45	4548	4542	214	56	10	M10x1	22	4884	219	4114	188	150	+0.5	2670	4700	

CORSOVER ROLLER SLEWING BEARING (UNGEARED)



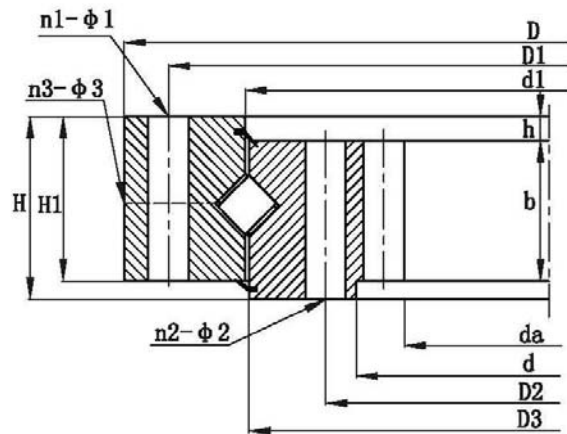
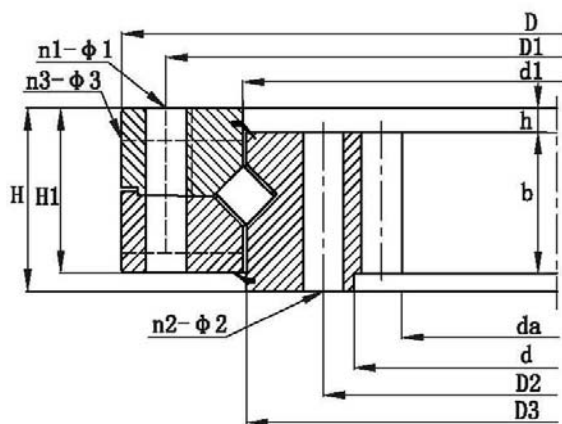
Designation	Boundary dimensions			Bolt hole diameter						Structure dimensions						Basic load ratings coa	Weight
	D	d	H	D1	D2	n1	n2	φ1	φ2	D3	d1	H1	h	n3	φ3		
	mm	mm	mm	mm	mm			mm	mm	mm	mm	mm	mm		mm	104 N	kg
NGCRM 500.320.85	500	320	85	515	365	12	8	17	18	438	442	75	10	--	--	88.2	85.6
NGCRM 900.600.125	900	600	125	848	690	30	29	26	M24	750	754	105	15	3	M10x1	280	246
NGCRM 907.670.85	907	670	85	870	730	12	8	M16	18	808	812	75	10	--	--	165	170
NGCRM 1000.700.140	1000	700	140	940	770	24	24	M20	22	879	882	130	20	4	M10x1	254	370
NGCRM 1150.845.130	1150	845	130	1100	895	24	24	22	22	1024	1030	105	10	6	M6	401	393
NGCRM 1180.870.115	1180	870	115	1125	920	18	18	28	28	1023	1027	100	15	2	M8x1	292	355
NGCRM 118.870.115	118	870	115	1125	920	18	18	28	28	1023	1027	100	15	2	M10x1	232	355
NGCRM 1200.962.90	1200	962	90	--	--	--	--	--	--	1088	1092	76	10	--	--	254	224
NGCRM 1270.1000.100	1270	1000	100	1220	1050	36	36	19	19	1132	1138	85	15	4	M10x1	333	303
NGCRM 1400.1060.120	1400	1060	120	1220	--	--	--	--	--	1248	1252	120	--	--	--	429	596
NGCRM 1520.1200.90	1520	1200	90	--	--	--	--	--	--	1356	1364	90	--	--	--	409	504
NGCRM 1700.1250.155	1700	1250	155	1650	1330	24	24	26	26	1446	1450	140	10	6	M10x1	602	1103
NGCRM 1608.1250.148	1608	1250	148	1512	1297	16	16	25	25	1403	1407	128	26	4	M10x1	595	743
NGCRM 1660.1278.120	1660	1278	120	1535	1335	18	18	26	26	1428	1432	105	15	4	M10x1	427	589
NGCRM 1715.1320.134	1715	1320	134	--	--	--	--	--	--	1503	1509	--	--	--	--	607	958
NGCRM 1840.1370.160	1840	1370	160	1770	1430	30	24	28	28	1598	1602	140	10	4	M10x1	997	1213
NGCRM 1700.1380.145	1700	1380	145	1650	1440	24	24	27	27	1568	1574	140	5	6	M10x1	461	746
NGCRM 1680.1412.70	1680	1412	70	--	1460	--	24	--	18	1544	1548	120	25	2	M10x1	617	725
NGCRM 1680.1412.185	1680	1412	185	--	1460	--	24	--	18	1544	1548	120	25	2	M12x1.25	576	759
NGCRM 2140.1600.145	2140	1600	145	1940	1710	48	48	26	26	1828	1832	135	10	4	M10x1	896	1357
NGCRM 2210.1776.150	2210	1776	150	2105	1840	36	36	26	26	1968	1972	135	15	4	M10x1	1113	1244
NGCRM 2320.1860.151	2320	1860	151	2245	1980	42	42	33	33	2113	2117	150	10	6	M10x1	890	1772
NGCRM 2320.1916.150	2320	1916	150	2245	1980	42	42	34	34	2113	2117	130	20	3	M10x1	1195	1214
NGCRM 2860.2190.300	2860	2190	300	2800	2270	36	36	32	32	2530	2550	260	40	12	8	3035	4797
NGCRM 2980.2500.180	2980	2500	180	2910	2590	48	48	33	33	2739	2743	170	10	6	M16x1.5	1760	2913
NGCRM 3310.2800.190	3310	2800	190	3220	2890	60	60	39	39	3050	3060	165	25	2	M10x1	2117	2864

CORSOVER ROLLER SLEWING BEARING (UNGEARED)



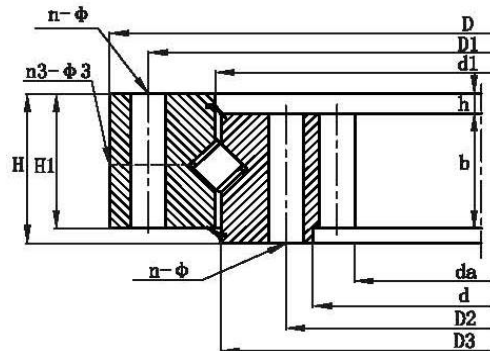
Designation	Boundary dimensions			Bolt hole diameter				Structure dimensions						Basic load ratings coa	Weight
	D	d	H	D1	D2	n	φ	D3 (D3')	d1 (d1')	H1	h	n3	φ3		
	mm			mm		mm		mm						10 ⁴ N	
NGCRM 602.398.75	602	398	75	566	434	20	18	499	501	65	10	4	M10x1	104	80
NGCRM 662.458.75	662	458	75	626	494	20	18	558.5	561.5	65	10	4	M10x1	116	90
NGCRM 732.528.75	732	528	75	696	564	24	18	628.5	631.5	65	10	4	M10x1	130	100
NGCRM 812.608.75	812	608	75	776	644	24	18	708.5	711.5	65	10	4	M10x1	149	110
NGCRM 922.678.82	922	678	82	878	722	30	22	798.5	801.5	72	10	6	M10x1	185	170
NGCRM 1022.778.82	1022	778	82	978	822	30	22	898.5	901.5	72	10	6	M10x1	209	190
NGCRM 1122.878.82	1122	878	82	1078	922	36	22	998.5	1001.5	72	10	6	M10x1	233	210
NGCRM 1542.998.82	1542	998	82	1198	1042	36	22	1118	1122	72	10	6	M10x1	262	230
NGCRM 1390.1110.91	1390	1110	91	1337	1163	40	26	1248	1252	81	10	6	M10x1	321	350
NGCRM 1540.1260.91	1540	1260	91	1487	1313	40	26	1398	1402	81	10	6	M10x1	358	400
NGCRM 1740.1460.91	1740	1460	91	1687	1513	45	26	1598	1602	81	10	8	M10x1	412	440
NGCRM 1940.1660.91	1940	1660	91	1887	1713	45	26	1798	1802	81	10	8	M10x1	460	500
NGCRM 2178.1825.112	2178	1825	112	2110	1891	48	33	1998	2002	100	12	8	M10x1	686	900
NGCRM 2178.1825.112	2178	1825	112	2110	1891	48	33	1991	1995	100	12	8	M10x1	635	767
NGCRM 2418.2065.112	2418	2065	112	2350	2131	48	33	2237.5	2242.5	100	12	8	M10x1	764	1000
NGCRM 2678.2325.112	2678	2325	112	2610	2391	56	33	2497.5	2502.5	100	12	8	M10x1	797	876
NGCRM 2978.2625.112	2978	2625	112	2910	2691	56	33	2797.5	2802.5	100	12	8	M10x1	960	1250
NGCRM 3376.2922.134	3376	2922	134	3286	3014	56	45	3147.5	3151.5	122	12	8	M10x1	1380	2150
NGCRM 3776.3322.134	3776	3322	134	3686	3414	56	45	3547.5	3552.5	122	12	8	M10x1	1570	2470
NGCRM 4226.3772.134	4226	3772	134	4136	3864	60	45	3997.5	4002.5	122	12	10	M10x1	1760	2800
NGCRM 4726.4272.134	4726	4272	134	4636	4364	60	45	4497.5	4502.5	122	12	10	M10x1	1980	3100

CORSSOVER ROLLER SLEWING BEARING (INTERNAL GEAR)



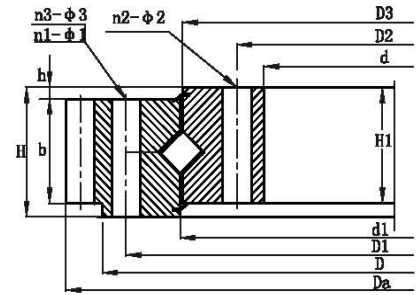
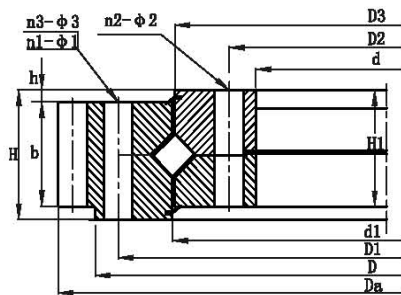
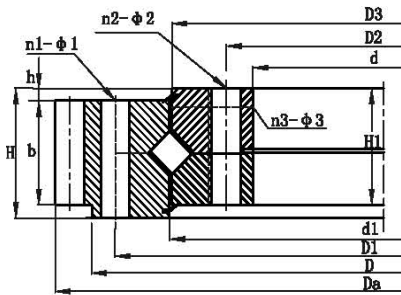
Designation	Boundary dimensions			Bolt hole diameter						Structure dimensions						Gear parameters						Basic load ratings coa	Weight
	D	d	H	D1	D2	n1	n2	φ1	φ2	D3	d1	H1	h	n3	φ3	m	Da	Z	b	x			
	mm	mm	mm	mm	mm			mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	10 ⁴ N	kg	
IGCRM 920.695.90	920	695	90	870	735	30	30	18	18	800	804	76	4	3	10	7	658	96	65	0	161	175	
IGCRM 1000.760.95	1000	760	95	956	800	24	24	20	20	878	882	82	15	4	M10x1	8	718.18	91	70	0.35	237	206	
IGCRM 1180.870.115	1180	870	115	1125	920	18	18	26	26	1023	1027	100	15	2	M8x1	8	828.8	105	90	0.3	292	374	
IGCRM 1170.875.95	1170	875	95	1120	930	24	24	22	22	1018	1022	82	15	4	M10x1	8	830.1	105	70	0.35	276	297	
IGCRM 1200.95.90	1200	95	90	1160	1000	36	18	18	18	1088	1092	76	10	4	M8x1	8	908.8	115	72	0.3	254	245	
IGCRM 1200.95.90	1200	95	90	1160	1000	36	18	18	18	1088	1092	76	10	4	M8x1	8	908.8	115	72	0.3	254	245	
IGCRM 1200.1010.90	1200	1010	90	1160	1041	36	20	22	M20	1088	1092	76	10	2	M8x1	10	962	97	72	0.6	254	199	
IGCRM 1200.1010.90	1200	1010	90	1160	1041	36	20	22	M20	1088	1092	76	10	2	M8x1	10	962	97	72	0.6	254	199	
IGCRM 1595.1278.120	1595	1278	120	1535	1335	36	36	26	26	1428	1432	106	14	6	M10x1	12	1221.14	103	90	0.35	398	585	
IGCRM 1715.1400.110	1715	1400	110	1660	1460	40	40	26	M24	1558	1562	95	15	4	M10x1	10	1330	135	90	0	597	587	
IGCRM 2420.2000.160	2420	2000	160	2350	2070	48	48	33	M30	2207	2213	140	20	6	M10x1	14	1913.5	138	120	0.3	1084	1607	
IGCRM 2670.2240.160	2670	2240	160	2600	2320	54	54	35	M36	2457	2463	140	20	6	M12x1.25	16	2154.5	136	120	0.3	1441	1798	
IGCRM 2800.2300.208	2800	2300	208	2710	2390	42	48	38	M36	2535	2545	180	18	6	M10x1	20	2162.75	110	175	0	1743	2756	
IGCRM 3325.2680.300	3325	2680	300	3242	2754	32	32	33	33	2996	3000	270	30	4	M16x1.5	16	2592	164	180	0	3587	6320	
IGCRM 3325.2680.300	3325	2680	300	3242	2754	48	48	33	33	2996	3000	270	30	4	M16x1.5	16	2592	164	180	0	3587	6320	
IGCRM 3325.2680.300	3325	2680	300	3242	2754	32	32	33	33	2996	3000	270	30	4	M16x1.5	16	2592	164	180	0	3035	6641	
IGCRM 3850.3322.200	3850	3322	200	3720	3420	60	60	45	45	3568	3572	180	30	12	Z1/4in	22	3206.368	147	158	0.35	1806	4520	

CORSSOVER ROLLER SLEWING BEARING (INTERNAL GEAR)



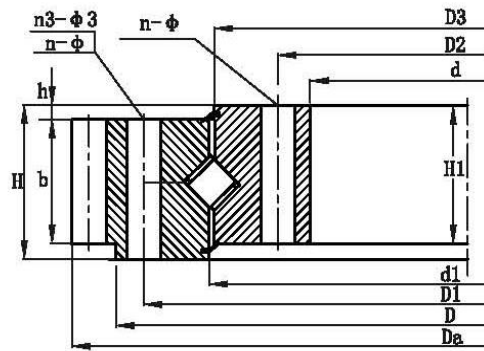
Designation	Boundary dimensions			Bolt hole diameter				Structure dimensions							Gear parameters							Basic load ratings coa	Weight
	D	d	H	D1	D2	n	φ	D3 (D3')	d1 (d1')	H1	h	n 3	φ3	m	Da	Z	da	Z	b	x			
	mm			mm		mm		mm		mm		mm		mm		mm		mm		10 ⁴ N	kg		
IGCRM 602.398.75	602	398	75	566	434	20	18	499	501	65	10	4	M10x1	5	630	123	365	74	60	0.5	104	80	
IGCRM 662.458.75	662	458	75	626	494	20	18	558.5	561.5	65	10	4	M10x1	5	690	135	425	86	60	0.5	116	90	
IGCRM 732.528.75	732	528	75	696	564	24	18	628.5	631.5	65	10	4	M10x1	6	774	126	492	83	60	0.5	130	100	
IGCRM 812.608.75	812	608	75	776	644	24	18	708.5	711.5	65	10	4	M10x1	6	852	139	570	96	60	0.5	149	110	
IGCRM 922.678.82	922	678	82	878	722	30	22	798.5	801.5	72	10	6	M10x1	8	968	118	632	80	65	0.5	185	170	
IGCRM 1022.778.82	1022	778	82	978	822	30	22	898.5	901.5	72	10	6	M10x1	8	1065	130	736	93	65	0.5	209	190	
IGCRM 1122.878.82	1122	878	82	1078	922	36	22	998.5	1001.5	72	10	6	M10x1	10	1190	116	820	83	65	0.5	233	210	
IGCRM 1542.998.82	1542	998	82	1198	1042	36	22	1118	1122	72	10	6	M10x1	10	1300	127	940	95	65	0.5	262	230	
IGCRM 1390.1110.91	1390	1110	91	1337	1163	40	26	1248	1252	81	10	6	M10x1	12	1452	118	1044	88	75	0.5	321	350	
IGCRM 1540.1260.91	1540	1260	91	1487	1313	40	26	1398	1402	81	10	6	M10x1	12	1608	131	1188	100	75	0.5	358	400	
IGCRM 1740.1460.91	1740	1460	91	1687	1513	45	26	1598	1602	81	10	8	M10x1	14	1820	127	1386	100	75	0.5	412	440	
IGCRM 1940.1660.91	1940	1660	91	1887	1713	45	26	1798	1802	81	10	8	M10x1	14	2016	141	1568	113	75	0.5	460	500	
IGCRM 2002.1665.156	2002	1665	156	1940	1720	54	30	1827	1833	128	28	6	M10x1	12	--	--	1610	135	100	0.5	571	912	
IGCRM 2178.1825.112	2178	1825	112	2110	1891	48	33	1998	2002	100	12	8	M10x1	16	2272	139	1728	109	90	0.5	686	900	
IGCRM 2418.2065.112	2418	2065	112	2350	2131	48	33	2237.5	2242.5	100	12	8	M10x1	16	2496	153	1984	125	90	0.5	764	1000	
IGCRM 2678.2325.112	2678	2325	112	2610	2391	56	33	2497.5	2502.5	100	12	8	M10x1	18	2772	151	2232	125	90	0.5	797	876	
IGCRM 2978.2625.112	2978	2625	112	2910	2691	56	33	2797.5	2802.5	100	12	8	M10x1	18	3078	168	2520	141	90	0.5	960	1250	
IGCRM 3376.2922.134	3376	2922	134	3286	3014	56	45	3147.5	3151.5	122	12	8	M10x1	20	3480	171	2820	142	110	0.5	1380	2150	
IGCRM 3776.3322.134	3776	3322	134	3686	3414	56	45	3547.5	3552.5	122	12	8	M10x1	20	3880	191	3220	162	110	0.5	1570	2470	
IGCRM 4226.3772.134	4226	3772	134	4136	3864	60	45	3997.5	4002.5	122	12	10	M10x1	22	4334	194	3652	167	110	0.5	1760	2800	
IGCRM 4726.4272.134	4726	4272	134	4636	4364	60	45	4497.5	4502.5	122	12	10	M10x1	22	4940	217	4158	191	110	0.5	1980	3100	

CORSOVER ROLLER SLEWING BEARING (EXTERNAL GEAR)



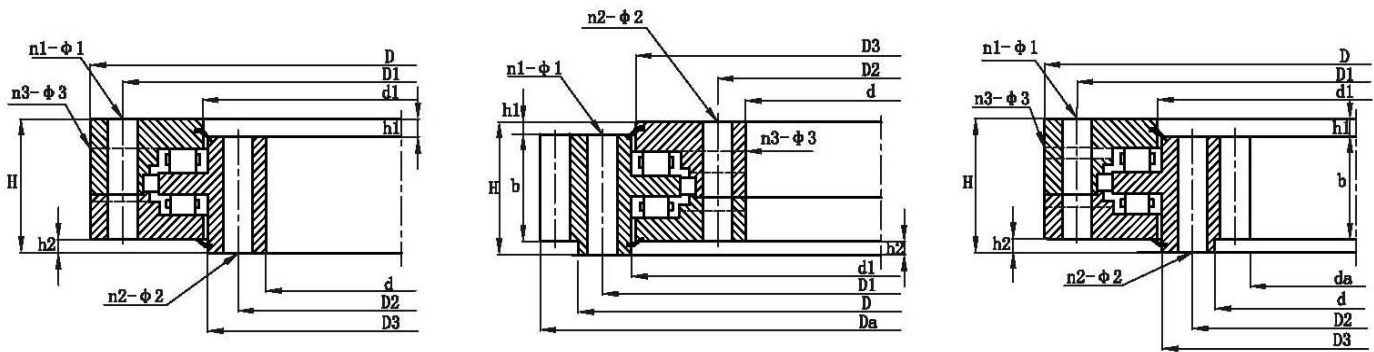
Designation	Boundary dimensions			Bolt hole diameter				Structure dimensions								Gear parameters					Basic load ratings co a	Weight
	D	d	H	D1	D2	n1	n2	φ1	φ2	D3	d1	H1	h	n3	φ3	m	Da	Z	b	x		
	mm	mm	mm	mm	mm			mm	mm	mm	mm	mm	mm		mm		mm	mm	mm	mm	10 ⁴ N	kg
EGCRM 1056.885.83	1056	885	83	1032	925	16	16	M16	18	986	988	75	13	--	--	8	1096	135	63	0	176	172
EGCRM 1150.885.115	1150	885	115	1115	935	16	16	18	18	1023	1027	100	15	4	M8x1	5	1180	234	80	0	292	330
EGCRM 1415.1100.115	1415	1100	115	1345	1160	24	24	21	21	1253	1255	100	15	4	M12x1.25	6	1452	240	84	0	270	497
EGCRM 1400.1100.140	1400	1100	140	1352	1160	26	26	24	26	1260	1264	126	21	4	M10x1	14	1477.28	104	90	-0.24	430	642
EGCRM 1400.1100.145	1400	1100	145	1352	1160	26	26	24	26	1260	1264	131	26	4	M10x1	14	1477.28	104	90	-0.24	430	644
EGCRM 1548.1250.148	1548	1250	148	1512	1297	16	16	25	25	1403	1407	122	20	4	M10x1	12	1608	132	100	0	539	661
EGCRM 1595.1278.120	1595	1278	120	1535	1335	36	36	26	26	1428	1432	105	15	4	M10x1	12	1655.46	134	90	+1.15	485	597
EGCRM 1705.1300.165	1705	1300	165	1644	1360	24	24	32	32	1504	1508	134	31	4	M10x1	14	1783.6	126	85	-0.3	578	1023
EGCRM 1715.1400.110	1715	1400	110	1660	1460	42	42	26	26	1558	1562	95	17	4	M12x1.25	12	1780.8	147	78	-0.3	597	579
EGCRM 1800.1460.125	1800	1460	125	1735	1525	32	36	26	26	1633	1637	110	10	4	M10x1	14	1881.6	133	95	-0.3	627	828
EGCRM 2600.2100.180	2600	2100	180	2540	2200	48	48	32	32	2368	2372	158	22	8	M10x1	18	2700	148	130	0	1100	2395
EGCRM 3108.2460.220	3108	2460	220	2930	2560	30	30	33	34	2745	2747	200	35	15	ZG1/4in	14	3108	220	200	0	1386	4091
EGCRM 2920.2500.260	2920	2500	260	3060	2622	36	36	40	40	2949	2916	240	60	36	ZG1/4in	18	3258	179	190	0	1996	5407
EGCRM 3332.2635.270	3332	2635	270	3240	2755	36	36	42	42	2998	3002	240	45	6	M12x1.25	20	3440	170	200	0	2950	5973
EGCRM 3970.3230.240	3970	3230	240	3820	3350	52	54	37	37	3578	3582	220	20	9	M12x1.25	25	4100	162	200	0	3520	7612

CORSSOVER ROLLER SLEWING BEARING (EXTERNAL GEAR)



Designation	Boundary dimensions			Bolt hole diameter				Structure dimensions							Gear parameters							Basic load ratings coa	Weight
	D	d	H	D1	D2	n	φ	D3 (D3')	d1 (d1')	H1	h	n3	φ3	m	Da	Z	da	Z	b	x			
	mm			mm		mm		mm					mm		mm	mm	mm	mm	10 ⁴ N	kg			
EGCRM 602.398.75	602	398	75	566	434	20	18	499	501	65	10	4	M10x1	5	630	123	365	74	60	0.5	104	80	
EGCRM 662.458.75	662	458	75	626	494	20	18	558.5	561.5	65	10	4	M10x1	5	690	135	425	86	60	0.5	116	90	
EGCRM 732.528.75	732	528	75	696	564	24	18	628.5	631.5	65	10	4	M10x1	6	774	126	492	83	60	0.5	130	100	
EGCRM 812.608.75	812	608	75	776	644	24	18	708.5	711.5	65	10	4	M10x1	6	852	139	570	96	60	0.5	149	110	
EGCRM 922.678.82	922	678	82	878	722	30	22	798.5	801.5	72	10	6	M10x1	8	968	118	632	80	65	0.5	185	170	
EGCRM 1022.778.82	1022	778	82	978	822	30	22	898.5	901.5	72	10	6	M10x1	8	1065	130	736	93	65	0.5	209	190	
EGCRM 1122.878.82	1122	878	82	1078	922	36	22	998.5	1001.5	72	10	6	M10x1	10	1190	116	820	83	65	0.5	233	210	
EGCRM 1542.998.82	1542	998	82	1198	1042	36	22	1118	1122	72	10	6	M10x1	10	1300	127	940	95	65	0.5	262	230	
EGCRM 1390.1110.91	1390	1110	91	1337	1163	40	26	1248	1252	81	10	6	M10x1	12	1452	118	1044	88	75	0.5	321	350	
EGCRM 1540.1260.91	1540	1260	91	1487	1313	40	26	1398	1402	81	10	6	M10x1	12	1608	131	1188	100	75	0.5	358	400	
EGCRM 1740.1460.91	1740	1460	91	1687	1513	45	26	1598	1602	81	10	8	M10x1	14	1820	127	1386	100	75	0.5	412	440	
EGCRM 1940.1660.91	1940	1660	91	1887	1713	45	26	1798	1802	81	10	8	M10x1	14	2016	141	1568	113	75	0.5	460	500	
EGCRM 21781825.112	2178	1825	112	2110	1891	48	33	1998	2002	100	12	8	M10x1	16	2272	139	1728	109	90	0.5	686	900	
EGCRM 2418.2065.112	2418	2065	112	2350	2131	48	33	2237.5	2242.5	100	12	8	M10x1	16	2496	153	1984	125	90	0.5	764	1000	
EGCRM 2678.2325.112	2678	2325	112	2610	2391	56	33	2497.5	2502.5	100	12	8	M10x1	18	2772	151	2232	125	90	0.5	797	876	
EGCRM 2978.2625.112	2978	2625	112	2910	2691	56	33	2797.5	2802.5	100	12	8	M10x1	18	3078	168	2520	141	90	0.5	960	1250	
EGCRM 33762922.134	3376	2922	134	3286	3014	56	45	3147.5	3151.5	122	12	8	M10x1	20	3480	171	2820	142	110	0.5	1380	2150	
EGCRM 3776.3322.134	3776	3322	134	3686	3414	56	45	3547.5	3552.5	122	12	8	M10x1	20	3880	191	3220	162	110	0.5	1570	2470	
EGCRM 4226.3772.134	4226	3772	134	4136	3864	60	45	3997.5	4002.5	122	12	10	M10x1	22	4334	194	3652	167	110	0.5	1760	2800	
EGCRM 4726.4272.134	4726	4272	134	4636	4364	60	45	4497.5	4502.5	122	12	10	M10x1	22	4940	217	4158	191	110	0.5	1980	3100	

THREE ROW ROLLER SLEWING BEARINGS



UNGEARED

Designation	Boundary dimensions			Bolt hole diameter				Structure dimensions						Gear parameters					Basic load ratings coa		Mass
	D	d	H	D1	D2	n1	n2	φ1	φ2	D3	d1	h1	h2	n3	φ3	m	Da	Z	b	x	
	mm	mm	mm	mm	mm			mm	mm	mm	mm	mm	mm		mm	mm	mm	mm	mm	mm	
NGTRM 4300.3650.355	4300	3650	355	4210	3750	90	90	48	48	3850	3680	--	--	18	M16x1.5	--	--	--	--	--	6570 1330 9503

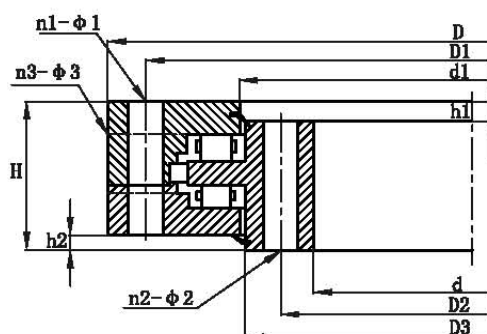
EXTERNAL GEAR

Designation	Boundary dimensions			Bolt hole diameter				Structure dimensions						Gear parameters					Basic load ratings coa		Mass
	D	d	H	D1	D2	n1	n2	φ1	φ2	D3	d1	h1	h2	n3	φ3	m	Da	Z	b	x	
	mm	mm	mm	mm	mm			mm	mm	mm	mm	mm	mm		mm	mm	mm	mm	mm	mm	
EGTRM 1984.1605.250	1984	1605	250	1932	1657	36	48	26	26	1850	1856	50	33	6x3	M14x1.5	16	2064	127	170	0	1525 208 1800
EGTRM 2465.1850.256	2465	1850	256	2390	2020	60	60	39	39	2261	2247	46	20	6x2	M10x1	18	2554	139	180	0.5	2253 320 3515
EGTRM 2650.2240.180	2650	2240	180	2588	2300	54	54	34	34	2487	2482	30	15	6x3	M14x1.5	18	2854	150	132	0.5	1680 205 1832
EGTRM 3006.2590.200	3006	2590	200	2930	2670	60	60	39	39	2845	2860	21	20	10x3	M10x1	16	3086	190	95	0.4375	2192 316 2780
EGTRM 3006.2590.314	3006	2590	314	2930	2670	60	60	39	39	2860	2864	19	24	10x3	M10x1	16	3085	190	134	0.4375	2700 316 4209
EGTRM 3260.2800.220	3260	2800	220	3190	2870	60	60	39	39	3082	3068	30	18	6x3	M14x1.5	20	3360	166	160	0	2700 330 3288
EGTRM 3255.2800.240	3255	2800	240	3185	2870	48	64	39	M36X3	3082	3068	30	32	8x3	M14x1.5	18	3348	184	160	0	2700 330 3424
EGTRM 3400.2910.220	3400	2910	220	3315	2990	56	56	39	39	3200	3187	50	10	8x2	M14x1.5	22	3520	158	160	0	2670 458 3736
EGTRM 3888.3340.212	3888	3340	212	3735	3441	108	108	33	33	3642	3612	42	22	24	Z1/4in	24	3888	161	170	0.5	3900 410 3684

INTERNAL GEAR

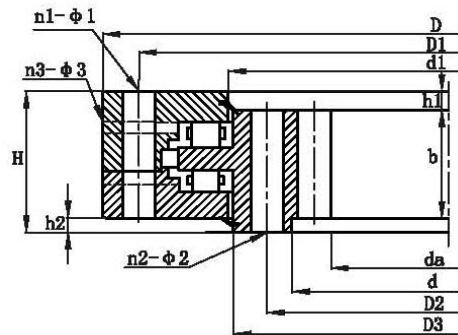
Designation	Boundary dimensions			Bolt hole diameter				Structure dimensions						Gear parameters					Basic load ratings coa		Mass
	D	d	H	D1	D2	n1	n2	φ1	φ2	D3	d1	h1	h2	n3	φ3	m	Da	Z	b	x	
	mm	mm	mm	mm	mm			mm	mm	mm	mm	mm	mm		mm	mm	mm	mm	mm	mm	
IGTRM 2650.2216.220	2650	2216	220	2590	2276	56	40	M30	33	2380	2392	27	23	8x3	M10x1	16	2130	135	140	0	2050 302 2418
IGTRM 3150.2700.255	3150	2700	255	3070	2750	8	2	32	M30	2856	2852	40	30	4x2	M14x1.5	20	2609	132	180	0	2920 423 3699
IGTRM 5000.4190.430	5000	4190	430	4880	4310	66	72	44	44	4482	4410	49	30	12x2	M10x1	25	4068	164	240	0.35	10506 1116 14204

THREE ROW ROLLER SLEWING BEARING (UNGEARED)



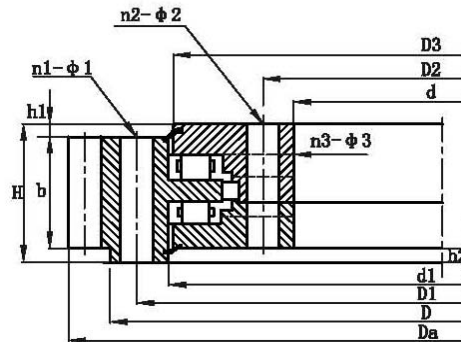
Designation	Boundary dimensions			Bolt hole diameter				Structure dimensions						Basic load ratings coa		Weight
	D	d	H	D1	D2	n	φ	D3 (D3')	d1 (d1')	h1	h2	n3	φ3			
	mm			mm		mm		mm					mm	10 ⁴ N		
NGTRM 634.366.148	634	366	148	598	402	24	18	537	526	32	10	4x2	M10x1	275	35.5	224
NGTRM 694.426.148	694	426	148	658	462	24	18	597	586	32	10	4x2	M10x1	308	39.9	240
NGTRM 764.496.148	764	496	148	728	532	28	18	667	656	32	10	4x2	M10x1	345	45.1	270
NGTRM 844.576.148	844	576	148	808	612	28	18	747	736	32	10	4x2	M10x1	388	51.7	300
NGTRM 964.636.182	964	636	182	920	680	36	22	841	830	40	10	4x2	M10x1	549	71.2	500
NGTRM 1064.736.182	1064	736	182	1020	780	36	22	941	930	40	10	4x2	M10x1	619	80.8	600
NGTRM 1164.836.182	1164	836	182	1120	880	40	22	1041	1030	40	10	5x2	M10x1	689	90.3	680
NGTRM 1284.956.182	1284	956	182	1240	1000	40	22	1161	1150	40	10	5x2	M10x1	768	102	820
NGTRM 1445.1055.220	1445	1055	220	1393	1107	45	26	1300	1290	50	10	5x2	M10x1	1110	146	1200
NGTRM 1595.1205.220	1595	1205	220	1543	1257	45	26	1450	1440	50	10	5x2	M10x1	1240	165	1300
NGTRM 1795.1405.220	1795	1405	220	1743	1457	48	26	1650	1640	50	10	6x2	M10x1	1420	190	1520
NGTRM 1995.1605.220	1995	1605	220	1943	1657	48	26	1850	1840	50	10	6x2	M10x1	1590	215	1750
NGTRM 2195.1816.150	2195	1816	150	2127	1885	60	33		2041	33	13	3x5	ZG1/4in	1690	66.3	1120
NGTRM 2461.2019.231	2461	2019	231	2395	2085	60	33	2295	2273	54	12	6x2	M10x1	2310	268	2700
NGTRM 3021.2579.231	3021	2579	231	2955	2645	72	33	2855	2833	54	12	8x2	M10x1	2880	339	3400
NGTRM 3432.2868.270	3432	2868	270	3342	2958	72	45	3213	3196	65	12	8x2	M10x1	3590	381	5000
NGTRM 3832.3268.270	3832	3268	270	3742	3358	72	45	3613	3596	65	12	8x2	M10x1	4040	431	5600
NGTRM 4282.3718.270	4282	3718	270	4192	3908	80	45	4063	4046	65	12	8x2	M10x1	4560	487	6400
NGTRM 4782.4218.270	4782	4218	270	4692	4308	80	45	4563	4546	65	12	8x2	M10x1	5445	580	6942

THREE ROW ROLLER SLEWING BEARING (INTERNAL GEAR)



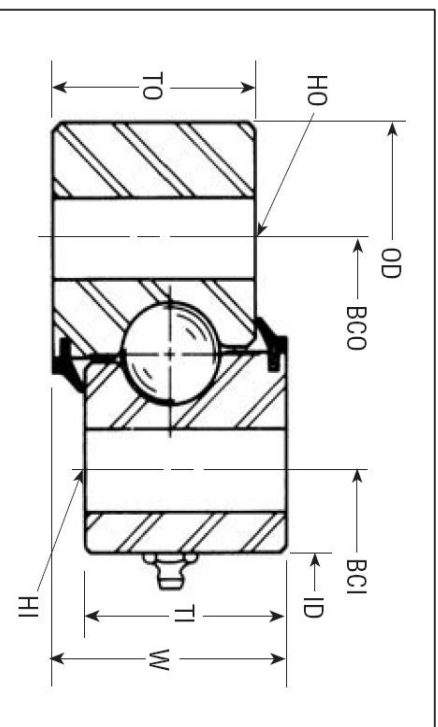
Designation	Boundary dimensions			Bolt hole diameter				Structure dimensions						Gear parameters								Basic load ratings coa		Weight
	D	d	H	D1	D2	n	φ	D3 (D3')	d1 (d1')	h1	h2	n3	φ3	m	Da	Z	da	Z	b	x				
	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	10 ⁴ N	kg		
IGTRM 634.366.148	634	366	148	598	402	24	18	537	526	32	10	4x2	M10x1	5	665	130	335	68	80	+0.5	275	35.5	224	
IGTRM 634.426.148	694	426	148	658	462	24	18	597	586	32	10	4x2	M10x1	5	725	142	395	80	80	+0.5	308	39.9	240	
IGTRM 764.496.148	764	496	148	728	532	28	18	667	656	32	10	4x2	M10x1	6	810	132	456	77	80	+0.5	345	45.1	270	
IGTRM 844.576.148	844	576	148	808	612	28	18	747	736	32	10	4x2	M10x1	6	888	145	534	90	80	+0.5	388	51.7	300	
IGTRM 964.636.182	964	636	182	920	680	36	22	841	830	40	10	4x2	M10x1	8	1008	123	592	75	120	+0.5	549	71.2	500	
IGTRM 1064.736.182	1064	736	182	1020	780	36	22	941	930	40	10	4x2	M10x1	8	1104	135	688	87	120	+0.5	619	80.8	600	
IGTRM 1164.836.182	1164	836	182	1120	880	40	22	1041	1030	40	10	5x2	M10x1	10	1220	119	780	79	120	+0.5	689	90.3	680	
IGTRM 1284.956.182	1284	956	182	1240	1000	40	22	1161	1150	40	10	5x2	M10x1	10	1340	131	900	91	120	+0.5	768	102	820	
IGTRM 1445.1055.220	1445	1055	220	1393	1107	45	26	1210	1200	50	10	5x2	M10x1	14	1512	105	980	71	150	+0.5	1110	146	1200	
IGTRM 1595.1205.220	1595	1205	220	1543	1257	45	26	1360	1350	50	10	5x2	M10x1	14	1666	116	1134	80	150	+0.5	1240	165	1300	
IGTRM 1795.1405.220	1795	1405	220	1743	1457	48	26	1650	1640	50	10	6x2	M10x1	14	1876	131	1330	96	150	+0.5	1420	190	1520	
IGTRM 1995.1605.220	1995	1605	220	1943	1657	48	26	1850	1840	50	10	6x2	M10x1	14	2072	145	1526	110	150	+0.5	1590	215	1750	
IGTRM 2221.1779.231	2221	1779	231	2155	1845	60	33	2055	2033	54	12	6x2	M10x1	16	2304	141	1696	107	160	+0.5	2050	239	2400	
IGTRM 2461.2019.231	2461	2019	231	2395	2085	60	33	2295	2273	54	12	6x2	M10x1	16	2560	157	1920	121	160	+0.5	2310	268	2700	
IGTRM 2721.2279.231	2721	2279	231	2655	2645	72	33	2467	2445	54	12	8x2	M10x1	20	2820	138	2180	110	160	+0.5	2580	302	3000	
IGTRM 3021.2579.231	3021	2579	231	2955	2645	72	33	2767	2745	54	12	8x2	M10x1	20	3120	153	2480	125	160	+0.5	2880	339	3400	
IGTRM 3432.2868.270	3432	2868	270	3342	2958	72	45	3213	3196	65	12	8x2	M10x1	20	3540	174	2760	139	180	+0.5	3590	381	5000	
IGTRM 4282.3718.270	4282	3718	270	4192	3908	80	45	4063	4046	65	12	8x2	M10x1	22	4400	197	3608	165	180	+0.5	4560	487	6400	
IGTRM 4782.4218.270	4782	4218	270	4692	4308	80	45	4563	4546	65	12	8x2	M10x1	22	4906	220	4114	188	185	+0.5	5445	580	6942	

THREE ROW ROLLER SLEWING BEARING (EXTERNAL GEAR)



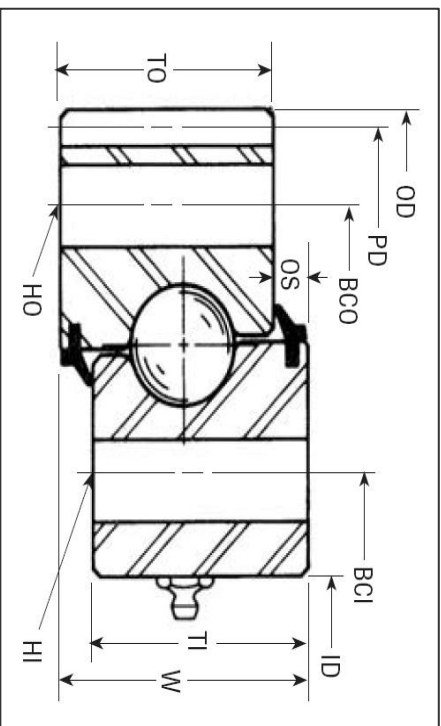
Designation	Boundary dimensions			Bolt hole diameter				Structure dimensions						Gear parameters								Basic load ratings coa	Weight
	D	d	H	D1	D2	n	φ	D3 (D3')	d1 (d1')	h1	h2	n3	φ3	m	Da	Z	da	Z	b	x			
	mm			mm		mm		mm					mm			mm		mm		mm			
EGTRM 634.366.148	634	366	148	598	402	24	18	537	526	32	10	4x2	M10x1	5	665	130	335	68	80	+0.5	275	35.5	224
EGTRM 694.426.148	694	426	148	658	462	24	18	597	586	32	10	4x2	M10x1	5	725	142	395	80	80	+0.5	308	39.9	240
EGTRM 764.496.148	764	496	148	728	532	28	18	667	656	32	10	4x2	M10x1	6	810	132	456	77	80	+0.5	345	45.1	270
EGTRM 844.576.148	844	576	148	808	612	28	18	747	736	32	10	4x2	M10x1	6	888	145	534	90	80	+0.5	388	51.7	300
EGTRM 964.636.182	964	636	182	920	680	36	22	841	830	40	10	4x2	M10x1	8	1008	123	592	75	120	+0.5	549	71.2	500
EGTRM 1064.736.182	1064	736	182	1020	780	36	22	941	930	40	10	4x2	M10x1	8	1104	135	688	87	120	+0.5	619	80.8	600
EGTRM 1164.836.182	1164	836	182	1120	880	40	22	1041	1030	40	10	5x2	M10x1	10	1220	119	780	79	120	+0.5	689	90.3	680
EGTRM 1284.956.182	1284	956	182	1240	1000	40	22	1161	1150	40	10	5x2	M10x1	10	1340	131	900	91	120	+0.5	768	102	820
EGTRM 1445.1055.220	1445	1055	220	1393	1107	45	26	1300	1290	50	10	5x2	M10x1	12	1512	123	984	83	150	+0.5	1110	146	1200
EGTRM 1595.1205.220	1595	1205	220	1543	1257	45	26	1450	1440	50	10	5x2	M10x1	12	1668	136	1140	96	150	+0.5	1240	165	1300
EGTRM 1795.1405.220	1795	1405	220	1743	1457	48	26	1650	1640	50	10	6x2	M10x1	14	1876	131	1330	96	150	+0.5	1420	190	1520
EGTRM 1995.1605.220	1995	1605	220	1943	1657	48	26	1850	1840	50	10	6x2	M10x1	14	2072	145	1526	110	150	+0.5	1590	215	1750
EGTRM 2195.1816.150	2195	1816	150	2127	1885	60	33		2041	33	13	3x5	ZG1/4in	16	2267	138			105	+0.9	1690	66.3	1120
EGTRM 2221.1779.231	2221	1779	231	2155	1845	60	33	2059	2055	54	12	6x3	M10x1	16	2304	141	1696	107	160	+0.5	2050	239	2230
EGTRM 2461.2019.231	2461	2019	231	2395	2085	60	33	2295	2273	54	12	6x2	M10x1	16	2560	157	1920	121	160	+0.5	2310	268	2700
EGTRM 2721.2279.231	2721	2279	231	2655	2345	72	33	2555	2561	54	12	8x3	M10x1	18	2826	154			160	+0.5	2580	302	2834
EGTRM 3021.2579.231	3021	2579	231	2955	2645	72	33	2855	2833	54	12	8x2	M10x1	18	3114	170	2484	139	160	+0.5	2880	339	3400
EGTRM 3432.2868.270	3432	2868	270	3342	2958	72	45	3213	3196	65	12	8x2	M10x1	20	3540	174	2760	139	180	+0.5	3590	381	5000
EGTRM 3376.2922.182	3376	2922	182	3286	3014	56	45	3190	3180	40	10	8x3	M10x1	20	3476	171			120	+0.5	2050	202	2308
EGTRM 3432.2868.270	3432	2868	270	3342	2958	72	45	3214	3197	50	12	8x2	ZG1/4in	20	3540	174			180	+0.5	3735	474	5404
EGTRM 3832.3268.270	3832	3268	270	3742	3358	72	45	3613	3596	65	12	8x2	M10x1	20	3940	194	3160	159	180	+0.5	4040	431	5600
EGTRM 4282.3718.270	4282	3718	270	4192	3908	80	45	4063	4046	65	12	8x2	M10x1	22	4400	197	3608	165	180	+0.5	4560	487	6400
EGTRM 4782.4218.270	4782	4218	270	4692	4308	80	45	4563	4546	65	12	8x2	M10x1	22	4906	220	4114	188	185	+0.5	5445	580	6942
EGTRM 5320.4670.320	5320	4670	320	5220	4766	100	45	5082	5062	65	18	10x3	M10x1	20	5440	270			220	+0.5	6834	955	11752

Single Row Ball Slewing Bearings (Inches Series) UNGEARED



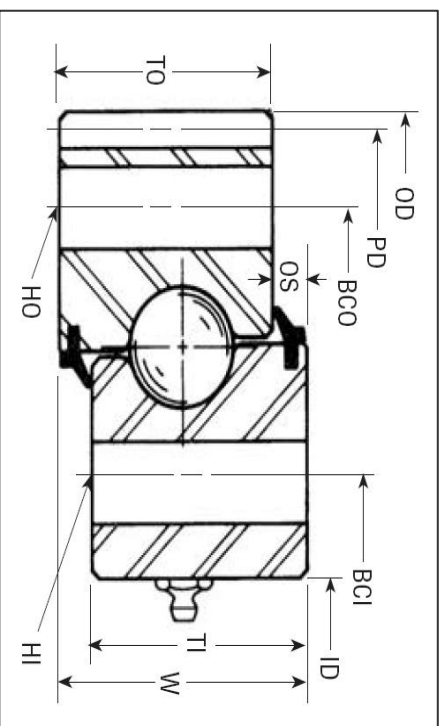
Designation	Reference No.	Outline dimensions (inches)						Mounting holes		Hole dia. HI/HO	Appro x. wt. (lbs.)	Reference moment load rating ft. lbs.
		OD	ID	W	TO/TI	BCO	BCI	Inner	Outer			
NGSBI 11.81-5.71-1.97	MTO-145	11.811	5.709	1.968	1.732	10.63	6.89	16	16	0.562	37	26,000
NGSBI 12.29-5.71-1.97	MTO-145X	12.286	5.709	1.968	1.732	10.63	6.89	16	16	0.594	41	30,600
NGSBI 14.37-8.27-1.58	MTO-210•	14.37	8.268	1.575	1.496	13.19	9.449	20	16	0.562	38	44,500
NGSBI 14.69-8.27-1.97	MTO-210X	14.686	8.268	1.968	1.732	13.19	9.449	20	16	0.594	48	52,100
NGSBI 16.54-10.43-1.97	MTO-265	16.535	10.433	1.968	1.732	15.354	11.614	24	18	0.562	54	62,000
NGSBI 17.09-10.43-1.97	MTO-265X	17.086	10.433	1.968	1.732	15.354	11.614	24	18	0.594	61	71,900
NGSBI 20.49-12.75-2.06	MTO-324	20.486	12.75	2.062	2	18.875	14.375	20	20	.625 UNC	105	102,400

Single Row Ball Slewing Bearings (Inches Series) EXTERNAL GEAR



Designation	Reference No.	Outline dimensions (inches)							Hole data			Gear data—20° pressure angle							Approx. wt. lbs.	Reference moment loading (lbs.)·ft.-lbs	
		OD	ID	W	TO	TI	OS	BCO	No. holes outer	HO	BCI	No. holes inner	HI	PD	DP	FW	No. teeth	BHN core hardness			Max. tangential tooth load
EGSBI 12.29-5.71-1.97	MTE-145	12.286	5.709	1.968	1.732	1.732	0.236	10.63	16	0.562	6.89	16	0.562	12	5/7*	1.732	60	277-321	7.140	38	26,000
EGSBI 12.29-5.71-1.97	MTE-145X	12.286	5.709	1.968	1.732	1.732	0.236	10.63	16	0.594	6.89	16	0.594	12	5/7*	1.732	60	277-321	7.140	38	30,600
EGSBI 14.69-8.27-1.58	MTE-210*	14.686	8.268	1.575	1.496	1.496	0.079	13.19	16	0.562	9.449	20	0.562	14.4	5/7*	1.496	72	262-302	5.810	38	44,500
EGSBI 14.69-8.27-1.97	MTE-210X	14.686	8.268	1.968	1.732	1.732	0.236	13.19	16	0.594	9.449	20	0.594	14.4	5/7*	1.732	72	277-321	7.290	44	52,100
EGSBI 17.09-10.43-1.97	MTE-265	17.086	10.433	1.968	1.732	1.732	0.236	15.354	18	0.562	11.614	24	0.562	16.8	5/7*	1.732	84	277-321	7.330	57	62,000
EGSBI 17.09-10.43-1.97	MTE-265X	17.086	10.433	1.968	1.732	1.732	0.236	15.354	18	0.594	11.614	24	0.594	16.8	5/7*	1.732	84	277-321	7.330	57	71,900
EGSBI 20.49-12.75-2.06	MTE-324	20.486	12.75	2.062	2.022	2.022	0.04	18.875	20	.625UNC	14.375	20	.625UNC	20.2	5/7*	2.022	101	277-321	8.700	98	101,700
EGSBI 20.49-12.77-2.38	MTE-324X	20.486	12.77	2.375	2.063	2.063	0.312	18.875	20	0.688	14.375	20	0.688	20.2	5/7*	2.063	101	277-321	8.863	99	102,100
EGSBI 24.65-16.25-2.38	MTE-415	24.65	16.25	2.375	2.063	2.063	0.312	22.25	16	0.813	17.75	20	0.813	24.25	4**	2.063	97	277-321	10.420	132	159,200
EGSBI 26.90-18.50-2.38	MTE-470	26.9	18.5	2.375	2.063	2.063	0.312	24.5	18	0.813	20	24	0.813	26.5	4**	2.063	106	277-321	10.460	147	191,600

Single Row Ball Slewing Bearings (Inches Series) EXTERNAL GEAR



Designation	Reference No.	Outline dimensions (inches)						Hole data			Gear data—20° pressure angle						Approx. wt. lbs.	Reference moment loading rating (lbs.)·ft.-lbs			
		OD	ID	W	TO	TI	OS	BCO	No. holes outer	HO	BCI	No. holes inner	HI	PD	DP	FW			No. teeth	BHN core hardness	Max. tangential tooth load
EGSBI 29.65-21.25-2.38	MTE-540	29.65	21.25	2.375	2.063	2.063	0.312	27.25	24	0.813	22.75	28	0.813	29.25	4**	2.063	117	277-321	10.520	163	232,000
EGSBI 33.53-23.13-2.88	MTE-590	33.554	23.125	2.875	2.563	2.563	0.312	30.625	18	0.938	24.875	24	0.938	33	3**	2.563	99	277-321	17.290	283	338,700
EGSBI 38.20-27.75-2.88	MTE-705	38.201	27.75	2.875	2.563	2.563	0.312	35.25	24	0.938	29.5	28	0.938	37.667	3**	2.563	113	277-321	17.390	332	443,200
EGSBI 41.85-28.75-3.25	MTE-730	41.85	28.75	3.25	2.88	2.88	0.375	38	20	1.063	31	24	1.063	41.2	2.5**	2.63	103	277-321	21.290	498	588,000
EGSBI 47.44-34.25-4.25	MTE-870	47.444	34.25	4.25	3.875	3.875	0.375	43.875	24	1.188	36.25	28	1.188	46.8	2.5**	3.875	117	277-321	31.620	780	873,800

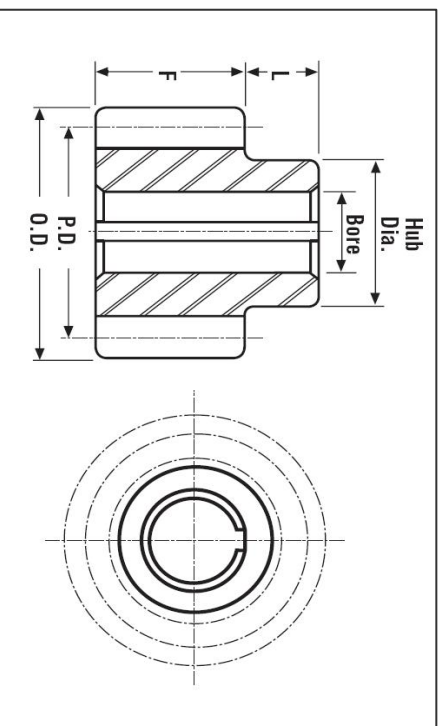
Note: Bearings with suffi x "X" in the model number provide additional load capacity.

They will require 9/16" diameter fasteners.

*Fellows Stub

**USA Standard Stub

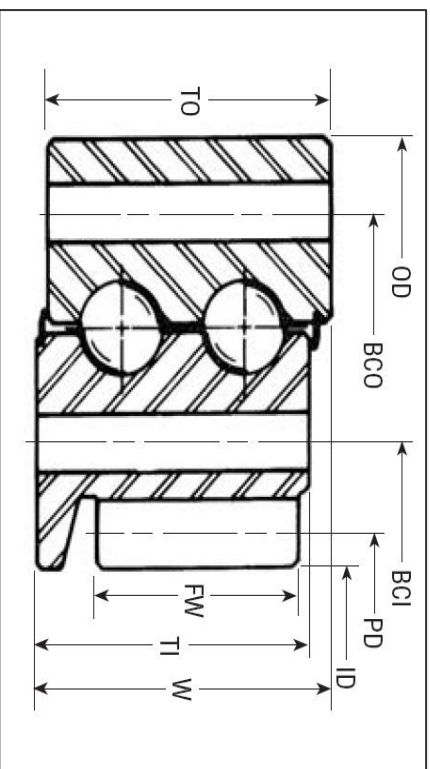
Mating Pinions for Inches-Series Bearings



Designation	Pinion number	No. of teeth	Diameter I pitch	Face (F)	Hub length (L)	Pitch dia.	Outer dia.	Hub dia.	Stock bore	Square Keyway
MTE-145 thru MTE-324	39201001	17	5/7	2.25	3.125	3.4	3.686	2.906	1	0.25
MTE-415 thru	39200001	14	4	2	0.88	3.5	3.9	2.88	1	
MTE-540	39200002	17	4	2	0.88	4.25	4.65	3.63	1	
MTE-590 thru	39200003	14	3	2	0.88	4.667	5.2	3.88	1.25	
MTE-705	39200004	17	3	2	0.88	5.667	6.2	4.88	1.25	
Tolerances			Ref.	Ref.	Ref.	Ref.	±.000 - .010	Ref.	±.002 - .000	

Double Row Ball Slewing Bearings (Inches Series)

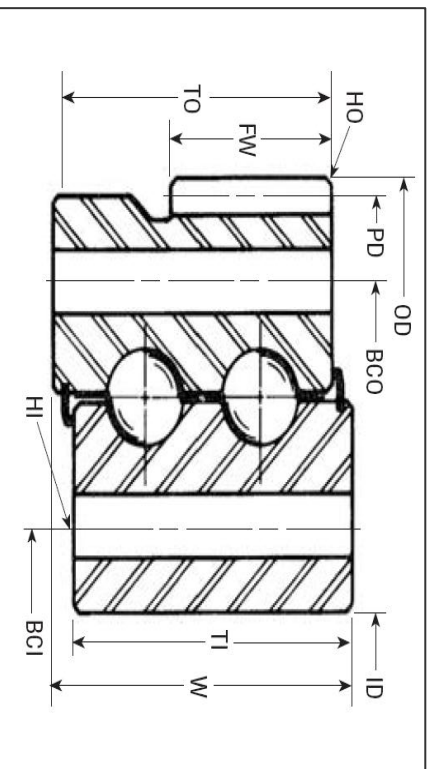
INTERNAL GEAR



Designation	Model No.	Outline dimensions (inches)					Hole data						Gear data—20° pressure angle					Tangential tooth loadlbs. max.	Approx. wt. lbs.	Reference moment load ft.-lbs.
		OD	ID	W	TO	TI	BCO	No. holes outer	HO	BCI	No. holes inner	HI	PD	DP	FW	No. teeth	BHN core hardness			
IGDBI 108.00-87.17-7.56	12282	108.000	87.170	7.563	7.188	6.250	102.953	66	1.593	93.504	66	1.593	87.874	1.411*	4.130	124	277-321	73,760	5,170	6,900,000
IGDBI 121.00-98.40-8.75	11563	121.000	98.400	8.750	8.438	8.438	117.000	53	1.575	105.000	72	1.575	100.000	1.25*	6.000	125	277-321	107,130	7,610	14,000,000

Double Row Ball Slewing Bearings (Inches Series)

EXTERNAL GEAR



Designation	Model No.	Outline dimensions (inches)					Hole data						Gear data—20° pressure angle				Tangential tooth loadlbs. max.	Approx. wt. lbs.	Reference moment load ft.-lbs.	
		OD	ID	W	TO	TI	BCO	No. holes outer	HO	BCI	No. holes inner	HI	PD	DP	FW	No. teeth				BHN core hardness
EGDBI 98.80-78.40-8.88	11943	98.800	78.400	8.875	8.250	8.250	94.250	72	1-3/4-8	82.500	60	1.812	98.000	2	4.750	196	277-321	49,680	5,580	7,900,000

Contact us for a no-obligation design review

No matter what your design, we can assess your needs and recommend the right bearing assembly to best meet your particular performance requirement. Just mail or call us to get started.



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