

YRT Turntable Bearings

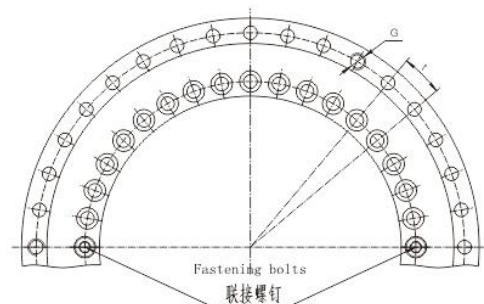
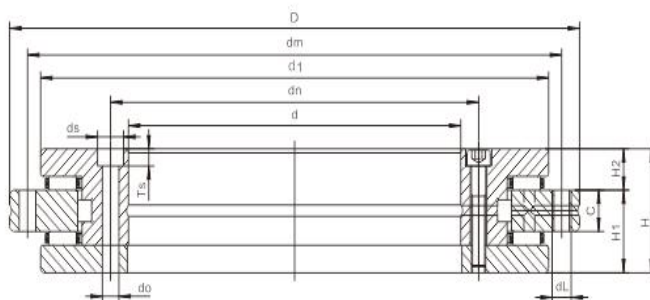


The YRT turntable bearing is composed of a set of thrust / radial seat ring, a thrust / radial shaft ring, a thrust washer, two roller cage assemblies and a set of radial cylindrical rollers. The seat ring and the shaft ring have evenly distributed screw holes for installation. This type of bearing has high axial and high radial load carrying capacity, high tilting rigidity and extremely high precision. It is suitable for rotary table and devices in measurement and experiment. The YRT turntable bearing also has relatively high requirements for the matching equipment parts. During installation, the tightening torque of the mounting screws needs to be controlled.

Applications: It is widely used in precision rotary table, vertical grinding machines, indexing heads, gear hobbing machines, gear milling machine workpiece shafts and other precision devices.

YRT standard series turntable bearings:

The thrust-radial combined structure can bear bidirectional axial load, radial load and overturning moment at the same time. The bearing is evenly equipped with mounting holes, which can be directly fixed to the bearing using bolts. The bearing has been pre-loaded at the time of installation, and there is no need to adjust the clearance during installation. YRT turntable bearing series is suitable for working conditions required of low speed, short operating cycle, high rigidity and accuracy, such as: rotary table, indexing head, etc.



Model Number	boundary dimensions								Basic load rating (KN)				Limiting speed (grease)	Weight Kg
									axial load		radial load			
	d	D	H	H1		D1	I	I1	dynamic	static	dynamic	static		



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	unit: mm								Ca	Coa	Cr	Cor	r/min	
YRT50	50	126	30	20	10	105	63	116	38	158	28.5	49.5	440	1.6
YRT80	80	146	35	23.35	12	130	92	138	56	255	42.5	100	530	2.4
YRT100	100	185	38	25	12	160	112	170	76.5	415	47.5	120	430	4
YRT120	120	210	40	26	12	184	135	195	102	540	52	143	340	5.3
YRT150	150	240	40	26	12	214	165	225	112	630	56	170	320	6.2
YRT180	180	280	43	29	15	244	194	260	118	710	69.5	200	280	7.7
YRT200	200	300	45	30	15	274	215	285	120	765	81.5	220	260	9.7
YRT260	260	385	55	36.5	18	345	280	365	160	1060	93	290	200	18.3
YRT325	325	450	60	40	20	415	342	430	275	1930	120	345	170	25
YRT395	395	525	65	42.5	20	486	415	505	300	2280	186	655	140	33
YRT460	460	600	70	46	22	560	482	580	355	2800	200	765	120	45
YRT580	580	750	90	60	30	700	610	720	490	4250	228	965	80	89
YRT650	650	870	122	78	34	800	680	830	1040	8000	490	1800	65	170
YRT850	850	1095	124	80.5	37	1018	890	1055	1000	8650	455	1730	50	253
YRT950	950	1200	132	86	40	1130	990	1160	1290	11400	530	2040	40	312
YRT1030	1030	1300	145	92.5	40	1215	1075	1255	1380	12000	620	2650	39	375

Model Number	Fixing holes								Pitches	Tightening torque	Frictional torque	Rotation accuracy
	Holes of inner ring				Holes of inner ring							
	Fixing holes				Fixing holes		Extraction thread hole					
	d1	d2	a	quantity	d3	quantity	G	quantity	xt			
	mm				mm		quantity x t					
YRT50	5.6	—	—	12	5.6	12	—	—	12x30°	8.5	2.5	2
YRT80	5.6	10	4	12	4.6	12	—	—	12x30°	8.5	3	3
YRT100	5.6	10	5.4	18	5.6	15	M5	3	18 x 20°	8.5	3	3
YRT120	7	11	6.2	24	7	21	M8	3	24 x 15°	14	7	3
YRT150	7	11	6.2	36	7	33	M8	3	36x10°	14	10	3
YRT180	7	11	6.2	48	7	45	M8	3	48x7.5°	14	12	4
YRT200	7	11	6.2	48	7	45	M8	3	48x7.5°	14	14	4
YRT260	9.3	15	8.2	36	9.3	33	M12	3	36x10°	34	20	6
YRT325	9.3	15	8.2	36	9.3	33	M12	3	36x10°	34	40	6
YRT395	9.3	15	8.2	48	9.3	45	M12	3	48x7.5°	34	55	6
YRT460	9.3	15	8.2	48	9.3	45	M12	3	48x7.5°	34	70	6
YRT580	11.4	18	11	48	11.4	42	M12	6	48x7.5°	68	140	10
YRT650	14	20	13	48	14	42	M12	6	48x7.5°	116	200	10
YRT850	18	26	17	60	18	54	M16	6	60x6°	284	300	12
YRT950	18	26	17	60	18	54	M16	6	60x6°	284	600	12
YRT1030	18	26	17	72	18	66	M16	6	72x5°	284	800	12

YRTS high speed turntable bearings:

The YRTS high-speed series has two thrust rings and one radial ring like the YRT standard series turntable bearings: the axial part includes two thrust cylindrical roller cage assemblies, one outer ring, one L-shaped inner ring and two inner rings, combined auxiliary preload is applied after installation. The radial part is the cylindrical roller cage assembly guided by the cage, and the preload is also applied in the radial direction; the



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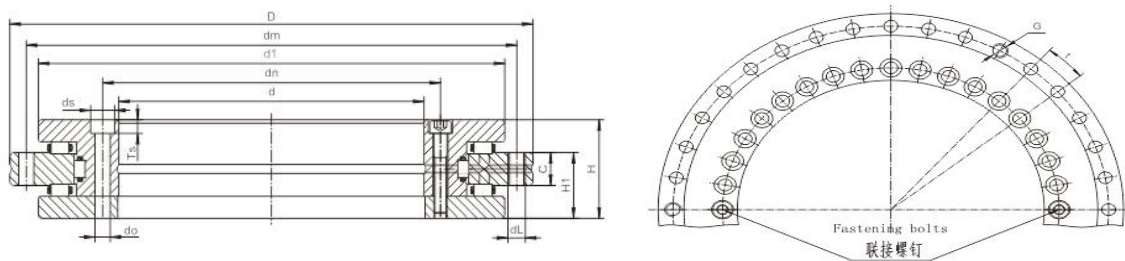
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outer ring, the L-shaped inner ring and the second inner ring have mounting holes, and the bearing itself It is fixed by connecting bolts to ensure installation, transportation and handling.

YRTS high-speed series rotary table bearings, the external structure and dimensions are the same as YRT standard series rotary table bearings, but its special internal structure design makes it have a higher limit speed, and the friction force in the whole speed range is lower and uniform. Therefore, it is suitable for applications similar to the YRT standard series but requiring lower friction and high speed, such as direct drive shaft bearing applications, especially suitable for the selection of bearings in the structure of CNC turntables.

For higher precision requirements, this series can also provide higher axial and radial runout accuracy.

YRT and YRTS series turntable bearings use TURMOGREASE L802EP grease produced by German LUBCON company. The applicable temperature is -35C to 140C. It is compatible with NBR, FKM, PTFE and PA66. YRT and YRTS series bearing outer ring and L-shaped inner ring are provided with oil holes for relubrication.



Model Number	boundary dimensions								Basic load rating (KN)				Weight Kg
									axial		radial		
	d	D	T	H	C	d1	dn	dm	dynamic load	static load	dynamic load	static load	
	unit:mm								Ca	Coa	Cr	Cor	
YRTS200	200	300	45	30	15	274	215	285	155	840	94	226	9.7
YRTS260	260	385	55	36.5	18	345	280	365	173	1050	110	305	18.3
YRTS325	325	450	60	40	20	415	342	430	191	1260	109	320	25
YRTS395	395	525	65	42.5	20	486	415	505	214	1540	121	390	33
YRTS460	460	600	70	46	22	560	482	580	221	1690	168	570	45

Model Number	fixing holes								Pitches	Tightening torque	Frictional torque	Limiting speed
	Holes of inner ring				Holes of inner ring							
	fixing holes				fixing holes		Extraction thread hole					
	d0	ds	Ts	uantity	dL	quantity	G	quantity	xt	Nm	Nm	grease r/min



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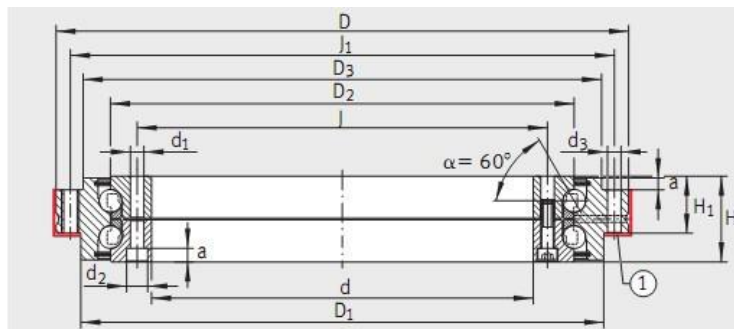
	mm				mm				quantity x t			
YRTS200	7	11	6.2	48	7	45	M8	3	48x7.5°	14	14	1160
YRTS260	9.3	15	8.2	36	9.3	33	M12	3	36 x 10°	34	20	910
YRTS325	9.3	15	8.2	36	9.3	33	M12	3	36 x 10°	34	40	760
YRTS395	9.3	15	8.2	48	9.3	45	M12	3	48x7.5°	34	55	650
YRTS460	9.3	15	8.2	48	9.3	45	M12	3	48x7.5°	34	70	560

ZKLDF thrust angular contact ball series turntable bearings:

ZKLDF series turntable bearings include an integral outer ring, two inner rings and two sets of steel balls and cage assemblies, with a contact angle of 60° . The outer ring and the inner ring are provided with mounting holes to facilitate the installation and fixing of the bearing through the connecting bolts. The bearing itself is fixed by connecting bolts to ensure installation, transportation and handling.

ZKLDF thrust angular contact ball series rotary table bearings have sealing covers on both sides to prevent the entry of external dirt and impurities and the leakage of internal grease. They are lubricated with compound barium base grease, and can also be relubricated through the oil holes on the outer ring.

ZKLDF thrust angular contact ball series rotary table bearings adopt bidirectional 60° contact angle and double row ball structure design, so they can bear radial load. Two-way transmission load and overturning moment; the special structure of the brass cage design makes it have higher strength and higher friction torque. Therefore, this series of bearings is suitable for ultra-high speed, long-term operation and high rigidity, high accuracy required.



bearing type	boundary dimensions								fixing holes					
	d	D	H	H1	D1	D2	J	J1	inner ring				outer ring	
	unit: mm								d1	d2	a	quantity	d3	quantity
									mm				mm	
ZKLDF100	100	185	38	25	160	136	112	170	5.6	10	5.4	16	5.6	15
ZKLDF120	120	210	40	26	184	159	135	195	7	11	6.2	22	7	21
ZKLDF150	150	240	40	26	214	188	165	225	7	11	6.2	34	7	33



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ZKLDF200	200	300	45	30	274	243	215	285	7	11	6.2	46	7	45
ZKLDF260	260	385	55	36.5	345	313	280	365	9.3	15	8.2	34	9.3	33
ZKLDF325	325	450	60	40	415	380	342	430	9.3	15	8.2	34	9.3	33
ZKLDF395	395	525	65	42.5	486	450	415	505	9.3	15	8.2	46	9.3	45
ZKLDF460	460	600	70	46	560	520	482	580	9.3	15	8.2	46	9.3	45
bearing type	Number of retaining screws	Extraction thread hole		1) Number of pitches X angle of pitches	Screw tightening torque	Basic load rating		Limiting speed	3) Bearing frictional torque	weight				
						axial								
						dynamic load	static load							
		MA2)	C a		Coa	grease								
		G	quantity	quantity×t	N m	KN		r/min	Nm	Kg				
ZKLDF100	2	M5	3	18×20°	8.5	71	265	2800	1.6	4.5				
ZKLDF120	2	M8	3	24×15°	14	76	315	2400	2	6				
ZKLDF150	2	M8	3	36×10°	14	81	380	2000	3	7.5				
ZKLDF200	2	M8	3	48×7.5°	14	112	610	1600	4.5	11				
ZKLDF260	2	M12	3	36×10°	34	162	920	1200	7.5	22				
ZKLDF325	2	M12	3	36×10°	34	172	1110	1000	11	28				
ZKLDF395	2	M12	3	48×7.5°	34	241	1580	800	16	39				
ZKLDF460	2	M12	3	48×7.5°	34	255	1860	700	21	50				

YRT turntable bearing installation:

The matching form of the YRT turntable bearing and the shaft and bearing seat is interference fit. Improper fit selection will affect the running accuracy and dynamics of the bearing. For example, over-tight fit will increase the radial preload of the bearing, which will cause increased friction, heat generation, raceway load and wear of the bearing, and reduce the bearing's limit speed and service life.

The machining accuracy of the shaft and the bearing seat and the cooperation between the bearing and the shaft and the bearing seat will affect the axial and radial runout accuracy of the bearing. In order to obtain a very high running accuracy, the fit clearance should be as zero as possible.

In order to make the actual size of the shaft and the bearing seat easier to match the bearing, please refer to the test record attached to each set of bearing at the factory.

For more information, please contact [Tedin's](#) technical center.