

KMF-Thin Ring Bearing-Slewing bearing

Light silent and combined loadable

Due to increasing automating in many industries, e. g. the semiconductor industry more space saving insert elements or thin ring bearings are required. From direct driven rotary tables to simple handling tools space and weight saving as well as precised bearing units are requested.

In order to fulfill these market needs, KMF offers a large variety of bearing elements like wire ball bearings, SLIM-SPLIT-BEARINGS, axial bearing washers and axial roller and cage assemblies as insert elements for direct integration in customers constructions.

Actually this delivery programm is increased by the slewing bearing assembly YKT, which are complete ready to assemble and pregreased bearing units.

The raceway system consists of two axial thrust ball bearings type PBAU with four point geometry. This bearing design is able to take loads from all directions (axial and radial), as well as moment loads.

Typically for insert elements is the relatively small bearing hight of 14 mm of the YKT bearing series. The both axial thrust ball bearing, which are forming the raceway system, are undependant of the diameter; this guarantees a stable bearing cross-cut

of only 37,5 x 20 mm, which is valid for the complete preferred series from bore diameter 100 to 450 mm.

Furthermore this system offers the possibility of manufacturing types between preferred series as well as slight changes to bearing shape.

KMF-Slewing bearing – SLIM-SPLIT-BEARING with it's extremely high integrated in constructions, which have not sufficient space for conventional catalogue bearings.

The ready to assemble easy mounting and easy to maintain bearing units type series YKT are fixed and screwed with the connecting parts via the bearing centering (see tabl of dimensions).

The play and the preload in the bearing is adjustable. The shape of the bearing with its two raceway systems guarantees a stable running culture with small starting torques and small noise development. The starting torque depends on the axial preload; increasing the preload increases therefore the torque.

Despite of the filigree construction of the KMF slewing bearings, they are nevertheless constructed according to the principle of economy. Different special options increase the application spectrum and assist individual construction demands without changing basic pricings considerably.

Bearing units of the type series YKT are offered in different versions, using bearing rings made of steel or completely corrosion resistant. This completely corrosion resistant version has the short sign „SS“ for stainless steel, the eloxated light metal version the short sign „AL“ for aluminium.

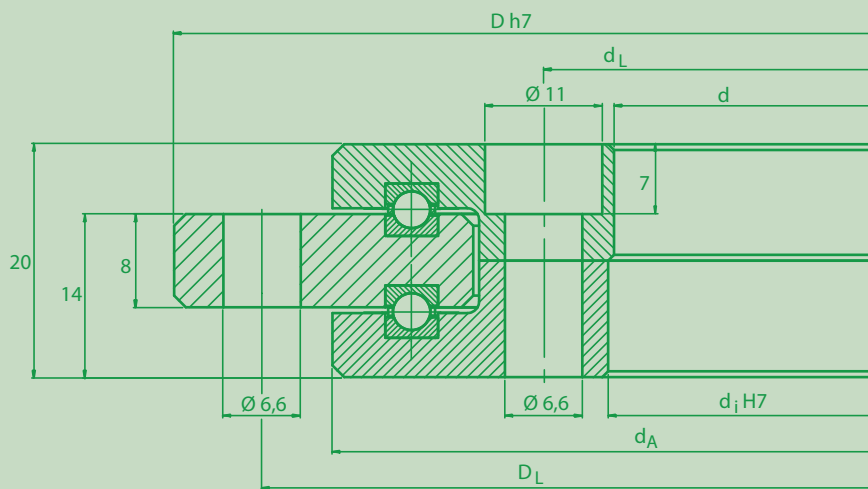
Furthermore offers the light metal version naturally the advantage of the weight decrease of up to 66% compared with the steel version.

Additionally, changes to the bore plan can be realised as well as lubrication bores.

Spur-toothed bearing inner and outer rings belong to the enhanced standard version as well as worm gear toothing for direct drives.

Additionally externally flanged or integrated slip ring solutions for power transmission from the static to the dynamic bearing ring is possible.

The KMF-Slewing bearing – SLIM-SPLIT-BEARING is suitable for many application areas, e. g. clean room, medicine- and food industry due to special material combinations (corrosion resistant steel, light metal, ceramic, plastics).

Dimensions YKT (without toothing)

Table of dimensions YKT (without toothing)

KMF-type ¹⁾	Bearing dimension						Number of bores S_Z Pieces	Weight		Load capacity				Limiting speeds $n_{G \text{ grease}}$ min ⁻¹
	d	d_i H7	d_A	d_L	D	D_L		Steel	Al	Axial		Radial		
					h7					dyn.	stat.	dyn.	stat.	
	mm	mm	mm	mm	mm	mm		kg	kg	C_a	C_{oa}	C_r	C_{or}	
YKT 100	100	101	148	115	175	160	6	1,7	0,7	4,44	11,90	1,73	4,38	1090
YKT 150	150	151	198	165	225	210	8	2,3	1,0	4,98	16,10	1,94	5,93	800
YKT 200	200	201	248	215	275	260	10	3,0	1,2	5,36	20,40	2,09	7,52	640
YKT 250	250	251	298	265	325	310	12	3,6	1,5	5,71	24,57	2,23	9,05	530
YKT 300	300	301	348	315	375	360	16	4,2	1,8	6,08	28,74	2,37	10,58	450
YKT 350	350	351	398	365	425	410	18	4,9	2,1	6,43	32,90	2,51	12,11	390
YKT 400	400	401	448	415	475	460	20	5,5	2,3	6,73	37,07	2,62	13,65	350
YKT 450	450	451	498	465	525	510	24	6,1	2,6	7,00	41,23	2,73	15,18	310

1) Other dimensions on request