MOUNTING AND BENCH END PLAY (B.E.P.) READJUSTMENT RECOMMENDATIONS FOR BUT TQO/TQOS BEARINGS

PERMISSIBLE DIMENSIONAL DEVIATIONS FOR ROLL NECK (TQO METRIC SERIES)

CUP AND CHOCK						DOUBLE CONE AND SHAFT					
Bearing nominal O.D.		Single plane mean bearing O.D. deviation		Chock bore diameter deviation		Bearing nominal bore diameter		Single plane mean bearing bore diameter deviation		Shaft diameter deviation	
Over	Incl.	Upper	Lower	Upper	Lower	Over	Incl.	Upper	Lower	Upper	Lower
mm		mm		mm		mm		mm		mm	
315	500	0	- 0,045	+ 0,110	+ 0,050	180	250	0	- 0,030	- 0,175	- 0,200
500	800	0	- 0,075	+ 0,100	+ 0,075	250	315	0	- 0,035	- 0,210	- 0,250
800	1250	0	- 0,125	+ 0,150	+ 0,100	315	500	0	- 0,045	- 0,240	- 0,300
1250	1600	0	- 0,160	+ 0,215	+ 0,125	500	800	0	- 0,075	- 0,250	- 0,400
						800	1250	0	- 0,125	- 0,350	- 0,500

RECOMMENDATIONS:

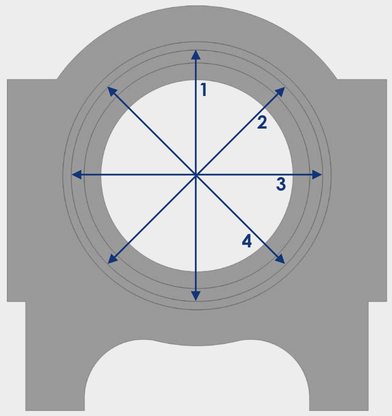
1. All deviations of form and position, especially the roundness, do not have to exceed half of the above stated tolerances.
2. The above stated tolerances represent recommended values but, according to the specific installation conditions and designer's decision, other values may be used.

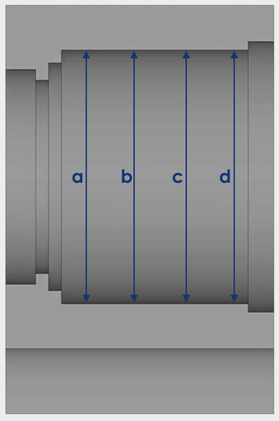
PERMISSIBLE DIMENSIONAL DEVIATIONS FOR ROLL NECK (TQO INCH SERIES)

CUP AND CHOCK						DOUBLE CONE AND SHAFT					
Bearing nominal O.D.		Single plane mean bearing O.D. deviation		Chock bore diameter deviation		Bearing nominal bore diameter		Single plane mean bearing bore diameter deviation		Shaft diameter deviation	
Over	Incl.	Upper	Lower	Upper	Lower	Over	Incl.	Upper	Lower	Upper	Lower
mm		mm		mm		mm		mm		mm	
304,8	609,6	+ 0,051	0	+ 0,150	+ 0,100	101,6	266,7	+ 0,025	0	- 0,150	- 0,175
609,6	914,4	+ 0,076	0	+ 0,225	+ 0,150	266,7	304,8	+ 0,025	0	- 0,175	- 0,200
914,4	1219,2	+ 0,102	0	+ 0,300	+ 0,200	304,8	609,6	+ 0,051	0	- 0,200	- 0,250
1219,2	1524,0	+ 0,127	0	+ 0,375	+ 0,250	609,6	914,4	+ 0,076	0	- 0,250	- 0,325
						914,4	1219,2	+ 0,102	0	- 0,300	- 0,400

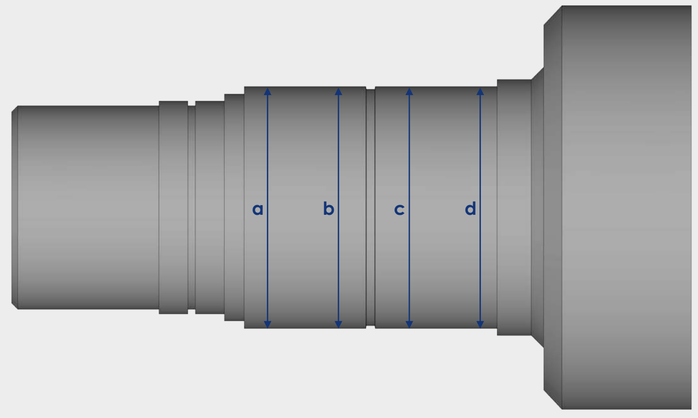
RECOMMENDATIONS:

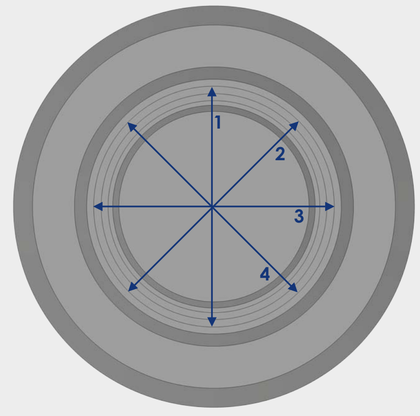
1. All deviations of form and position, especially the roundness, do not have to exceed half of the above stated tolerances.
2. The above stated tolerances represent recommended values but, according to the specific installation conditions and designer's decision, other values may be used.



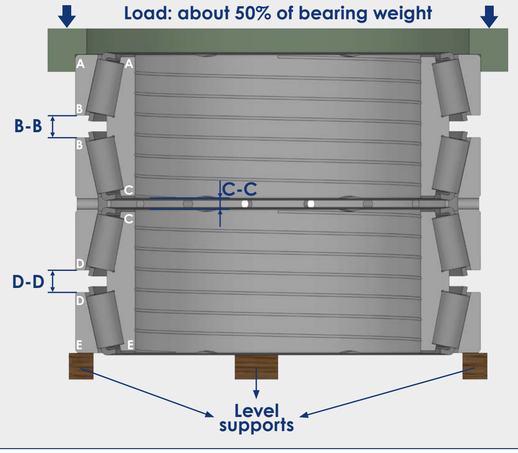


The chock bore diameter has to be measured in four equally spaced planes normal to the bore axis of symmetry (a, b, c, d) and in each plane in four directions offset at 45° (1, 2, 3, 4). These measurements have to be properly recorded.





The shaft diameter has to be measured in four planes (or three, according to the neck shape) normal to the shaft axis of symmetry (a, b, c, d) and in each plane in four directions offset at 45° (1, 2, 3, 4). These measurements have to be properly recorded.



RECOMMENDATIONS FOR BENCH END PLAY (B.E.P.) READJUSTMENT OF RKB TQO/TQOS BEARINGS

After dismounting the TQO/TQOS bearing for inspection or maintenance operations, the actual Bench End Play (B.E.P.), or axial clearance, has to be determined following the instructions supplied below. Measurements should be performed with instruments having precision of at least 0.01 mm and in a room where temperature is constantly kept at around 20 °C to avoid dimensional changes.

- Place the single cup DE on level supports and place consecutively and in the correct order all the bearing components except for the spacers.
- Load the bearing with an appropriate weight (about 50% of bearing weight) through the single cup AB.
- Measure the gaps B-B, C-C, and D-D at four different points each and get the mean values.
- To obtain more precise results, it is highly recommend to arrange the bearing components in the reverse order (starting with the single cup AB) and perform a second set of measurements.
- Get the mean values of the gaps B-B, C-C, and D-D.
- Measure the width of the cup spacers (BB and DD) and cone spacer (CC) at four different points each and get the mean values.
- Using these measurements, determine the actual value of the bearing B.E.P.
- If the B.E.P. exceeds the limits imposed by the manufacturer, regrind the bearing spacers in order to obtain the requisite B.E.P.