

DIMENSIONS AND TOLERANCES

	TYPE NRA & NRB	Type ZB	Type TR
Minimum diameter	1 mm	3 mm	3 mm
Maximum diameter	6 mm	80 mm	80 mm
Diameter tolerance*	+0/-10 µm	+0/-10 µm	+0/-10 µm
*available after evaluation where required tolerances are different from 0 / -10 µm			
Minimum length	5,8 mm	4 mm	4 mm
Maximum length	59,8 mm	120 mm	120 mm
	0 ÷ 3 mm +0/-140 µm	-	-
	3 ÷ 6 mm +0/-180 µm	3 ÷ 15 mm +0/-30 µm	3 ÷ 15 mm +0/-30 µm
	6 ÷ 10 mm +0/-220 µm	15 ÷ 50 mm +0/-50 µm	15 ÷ 50 mm +0/-50 µm
LENGTH TOLERANCE	10 ÷ 18 mm +0/-270 µm	> 50 mm +0/-80 µm	> 50 mm +0/-80 µm
	18 ÷ 30 mm +0/-330 µm	-	-
	30 ÷ 50 mm +0/-390 µm	-	-
	> 50 mm +0/-460 µm	-	-

PRECISION GRADES AND TOLERANCES

GRADE	ROUNDNESS	ROUGHNESS	SORTING GAUGE GROUPS
G 1 (only ZB - TR)	< 0,5 µm	< 0,10 µm	1,5 µm
G2	< 1 µm	< 0,16 µm	2 µm
G3	< 1,5 µm	< 0,30 µm	3 µm
G5	< 2,5 µm	< 0,40 µm	5 µm